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MARKET ANALYTICS AND SCENARIO FORECASTING UNIT

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PROPERTY BAROMETER Residential Property Affordability Review

Early-2018 saw the recent improving trend in home affordability "stalling", as under-pressure disposable income growth battles to outpace house price growth.

Recent housing affordability improvements "stalled" in the 1st quarter of 2018.

Both of the 2 key FNB Housing Affordability measures, i.e. the Average House Price/Per Capita Income Ratio Index as well as the Bond Instalment Value on the Average-Priced House/Per Capita Income Ratio Index, saw small quarterly increases (deteriorations) in the 1st quarter. This was definitely not due to any strength in house price growth, but rather due to very weak Per Capita Household Disposable Income growth in a contractionary economic environment.

KEY POINTS

• For both credit-dependent as well as cash home buyers, the broad 2-year improving trend in home affordability "stalled" early in 2018. Both the 2 main FNB Housing Affordability measures showed mild increases (deteriorations) in the 1st quarter of 2018, implying some slight home affordability deterioration.

• The 1st Home Affordability measure, namely the "Average House Price/Per Capita Disposable Income Ratio Index", increased (deteriorated) by +0.2% in the 1st quarter of 2018 after a prior quarter's -1.2% decline (improvement).

• The 2nd measure, namely the "Installment Value on a new 100% Bond on the Average Priced House/Per Capita Disposable Income Ratio Index", also increased (deteriorated), to the tune of +0.2% quarter-on-quarter, after a prior quarter's -1.2% decline (improvement).

• While we remain of the view that further affordability improvements will follow, this "stalling" in the recent improving trend indicates that weak economic growth, resulting in slow Per Capita Household Disposable Income growth, will make further affordability improvement slow going even despite slow house price growth.

• The FNB Housing Affordability Indices remain high by historic standards. We believe that they are still in part reflective of a 5%+ growth SA economy prior to 2008, and not of a far weaker growth economy of recent times. However, what looks likely to be a prolonged period of economic weakness ahead, along with weak consumer sentiment, is expected to lead to a gradual long term "correction" to a significantly more affordable housing market.

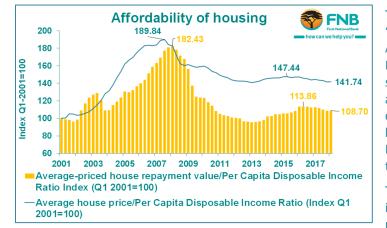
FNB HOME AFFORDABILITY RATIOS

The 2 quarterly FNB Housing Affordability Ratios pointed to slight residential affordability deterioration in the 1st quarter of 2018, despite very slow house price growth.

This is reflective of a weak economy translating into weak Per Capita Household Disposable Income growth battling to outpace even modest house price growth.

For both credit-dependent as well as cash home buyers, home affordability deteriorated very slightly in the 1st quarter of 2018, "stalling" a recent improving national affordability trend which has been intact through 2016 and 2017, according to the 2 FNB Home Affordability Indices.

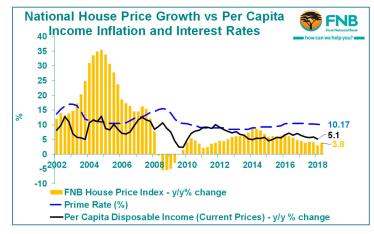
The 1st measure, namely the "Average House Price/Per Capita Disposable Income Ratio Index", rose (deteriorated) by +0.2% in the 1st quarter of 2018, following on a -1.2% decline (improvement) in the previous quarter. This stalls the broad declining (improving) trend that started in the 3rd quarter of 2015. Nevertheless, this Affordability Index remains down (improved) by -4.03% since its 7-year high reached in the 2nd quarter of 2015



The 2nd affordability measure, namely the "Installment Value on a new 100% Bond on the Average Priced House/Per Capita Disposable Income Ratio Index", also rose (deteriorated) slightly by +0.2% in the 1st quarter of 2018, after a -1.2% decline in the prior quarter. This 1st quarter 2018 affordability measure did not yet benefit from a 25 basis point interest rate cut in March, as the cut came only right at the end of the quarter in focus.

This index had previously been on a broad improving (declining) trend since a 7-year high reached in the 2^{nd} quarter of 2016 (the quarter in

which the last interest rare hiking cycle ended), and is still down (improved) -4.53% cumulatively since then despite the slight 1st quarter deterioration.



The failure to achieve further home affordability improvements in the 1st quarter of 2018 came largely as a result of a quarterly economic contraction in the 1st quarter, which resulted in weak Nominal quarter-on-quarter Per Capita Disposable Income growth.

Whereas quarter-on-quarter house price growth was a meagre +0.4% in the 1st quarter, Nominal Per Capita Disposable Income growth was an even weaker +0.2%.

On a year-on-year basis, Per Capita Disposable Income growth remained above house price growth in the 1st quarter, the former measuring

5.1% and the latter 3.0%. So it is likely that in the near term the home affordability improvements (declines in the indices) may resume, and that the 1st quarter deterioration was a "once-off". However, the fact that year-on-year growth in Nominal Per Capita Disposable Income has slowed from a multi-year high of 7.1% in the 2nd quarter of 2016 to 5.1% by the 1st quarter of 2018 has made it tougher to achieve home affordability improvements of late, and it will require very slow house price growth to achieve further noticeable affordability improvements going forward.

So how affordable is the housing market?

So how "affordable" or "in-affordable" is the housing market? The 2 affordability measures are still significantly improved (down) on their late pre-2008 boom time highs around 2006-2008. The Average House Price/Per Capita Disposable Income Index is -25.3% down on its revised boom time high reached in the 3rd quarter 2007, while the New Bond Installment/Per Capita Income Ratio is -40.4% lower than its 1st Quarter 2008 high point.

On the other hand, though, the House Price/Per Capita Income Ratio Index is still +41.74% above the 1st quarter 2001 "pre-boom" level, so it is still far from "cheap" by historic standards. But keeping property values still "temporarily" comparative, affordability-wise, to early-2001 has been a period of abnormally low interest rates in recent years, which has meant that the Loan Instalment/Per Capita Disposable Income Index is actually only +8.7% above (less affordable than) the 1st quarter 2001 level.

South Africa's currently low interest rates thus continue to assist in sustaining the relatively high real house price levels (by SA's historic standards) that we currently experience.

SECTION 2: OTHER KEY AFFORDABILITY MEASURES RELATED TO HOUSING

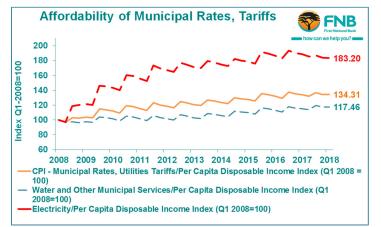
THE HOME RUNNING COST-RELATED AFFORDABILITY PICTURE

Estimates of home running cost-related affordability

One good news development for home owners has been a significant slowdown in the rate of inflation of electricity tariffs in the past few years, with NERSA not allowing Eskom its extreme tariff hikes of prior years.

In this section, we consider measures of affordability that are related to the home, i.e. those that are running cost related, and to this effect we use components of the CPI (Consumer Price Index) to construct an affordability index for Municipal Rates and Tariffs, along with an index for Maintenance and Repairs Costs.

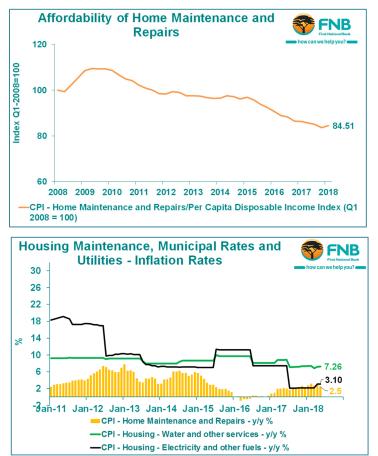
The "Municipal Rates and Tariffs/Per Capita Disposable Income" Index has moved higher through the 2008-2017 period. This affordability measure has deteriorated (risen) by 34.31% from the beginning of 2008 to the 1st quarter of 2018.



Major upward pressure has been exerted on this index by high inflation in the area of electricity tariffs, but moderated in part by less extreme Municipal Rates and Non-Electricity Tariffs cost inflation. The Electricity Affordability component has been the most troublesome part of the Rates and Tariffs bill, and its affordability index escalated (deteriorated) by a massive 93.3% from the beginning of 2008 to the 3rd quarter of 2016, on the back of major multi-year Eskom tariff hikes. This alarming rate of increase has since moderated, however, and this Electricity Affordability Index started 2018 a lesser 83.2%

up on the beginning of 2008 level.

The Water and Non-Electricity Tariffs/Per Capita Disposable Income Index has risen (deteriorated) by a more moderate 17.46% from 2008 to the 1st quarter of 2018.



The Home Maintenance and Repairs/Per Capita Disposable Income Index, however, has actually declined cumulatively by -15.49% over the period.

Of late, the CPI (Consumer Price Index) for Electricity and Other Fuels shows relatively low year-on-year inflation of 3.1%, while the CPI for Water and Other Services (includes assessment rates) appears more "troublesome" at a higher 7.26 rate.

The CPI for Home Maintenance and Repairs measured a lowly 2.5% in May, having been in low single digits ever since emerging from a period of mild deflation back in 2016.

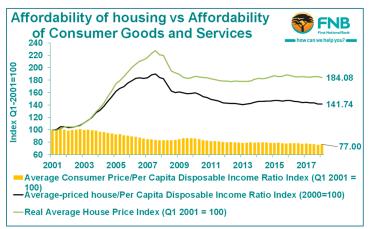
This pricing weakness in the Maintenance and Repairs market is possibly due to a partial "crowding out" of this economic sector by

municipalities and utilities with their extreme tax/tariff hikes.

COMPETITOR PRODUCT AND RELATED AFFORDABILITY

Real House Prices

It is also important to consider the "price competitiveness" of housing versus consumer goods and services that in part compete with it for a share of household disposable income.



Relative to where we started back in 2000, at the start of the housing and consumer booms, housing remains significantly worse off today. Limited housing supply back in those boom years, when demand surged, led to massive house price growth and resultant affordability deterioration. By comparison, affordability of consumer goods and services continued to improve throughout the boom years, with especially the importable consumer goods not experiencing major supply constraints and resultant price inflation surges during demand booms.

Therefore, despite the Average House Price/Per Capita Disposable Income Index (Q1 2001 = 100) being significantly down on its late-2007 high, by the 1st Quarter of 2018 it still sat at 141.74, 41.74% up on the 1st quarter of 2001,

while the Average Consumer Price/Per Capita Disposable Income Index (Q1 2001 = 100) had dropped as low as 77.00 (thus -23% down on its 1^{st} quarter 2001 level), having never really risen in the boom years of 2000-2007.

Thus, over the boom years, housing lost major ground on consumer goods and services in terms of relative affordability, and never fully "recovered". This "loss of ground" over time is in part addressed by the longer term move towards building smaller-sized residential units on smaller-sized stands.

So, when we use the PCE (Private Consumption Expenditure) Deflator to deflate house prices into real terms (with Q1 2001=100 for the Real House Price Index), we see that the Real FNB House Price Index is still a massive 84.08% higher than in early-2001, as at the 1st quarter of 2018.

Since the 1st quarter 2016 post-boom (referring to pre-2008 boom) high point in real house prices, we have seen some small real price decline, cumulatively to the tune of -1.9%. However, the declining real price trend has been slow going, with consumer price inflation also very low in recent times.

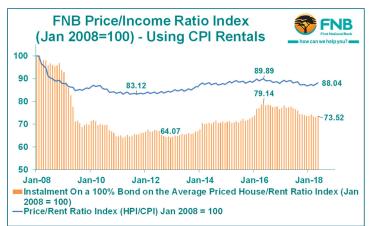
House Price-Rent Ratio off its 2016 high.

The House Price-Rent Ratio is one important ratio in determining how costly the home buying option is relative to the competing option, i.e rental.

Analysts often become concerned when the Price-Rent Ratio is very high, as it can begin to make the rental option very appealing, contributing at some stage into 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.

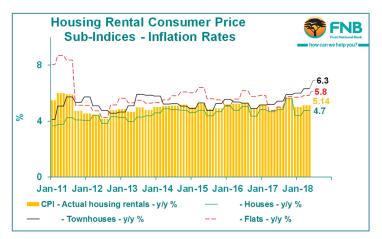


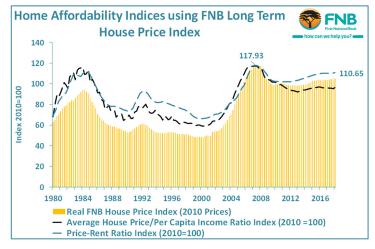
Since around the start of a slowing in the residential market around 2016, there has been some noticeable progress in the lowering of the Price-Rent Ratio Index. From a post-2008/9 recession high of 89.89, reached in May 2016, the index has declined cumulatively by -2.1% to an 88.04 level in May 2018.

While 88.04 is believed to still be a high number, albeit -11.96% down on January 2008, the other important ratio, i.e. the Instalment on a 100% bond on the average-priced house/Rent Ratio Index, remains somewhat lower of late, at a level of 73.52 (January 2008 = 100), -26.48% down on

January 2008, assisted by significantly lower lending rate levels than those in 2008. Since its post-2008/9 recession high of 79.14 reached in May 2016, this index has also made some progress, declining cumulatively by -7.1%, helped lower not only by weak house price growth but also by a 25 basis point interest rate reduction in July 2017 and a further one in March 2018.

The Price-Rent and Instalment-Rent Ratio Indices have thus also made some mild improvement over the past 2 years or so.





see the Price-Rent Ratio Index as relatively high.

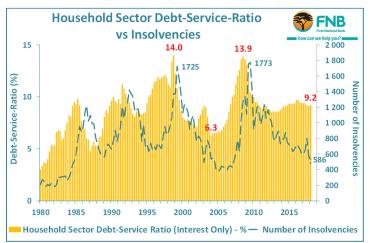
The affordability of servicing existing debt

Recently, average year-on-year house price growth has been running slower than near-5% (5.14% in May) year-on-year rental inflation (as measured by StatsSA), sustaining the broad lowering of the Price-Rent Ratio.

In order to give a longer term perspective of the level of the Price-Rent Ratio, we have used 2 different quarterly series, namely our FNB Long Term House Price Index (compiled from Deeds data) and a long term rental estimate using SARB Household Consumption data for actual and imputed rentals.

A multi-decade high was reached late in 2007 at the back end of the boom period, and while the most recent level of this index is -6.2% down on the 2^{nd} quarter 2007 multi-decade high point, it remains relatively high by historic standards at +67.0% higher than the multi-decade low point reached in the 1^{st} quarter of 2000. We thus still

Finally, there is the matter of credit affordability, which is a function of the value of credit outstanding, the level of disposable income, and the prevailing level of interest rates.



The best measure of the affordability of Household Credit is the Debt-Service Ratio (The cost of servicing total Household Sector debt, expressed as a percentage of Household Disposable Income).

In the 1st quarter of 2018, we saw a Debt-Service Ratio of 9.2 being slightly higher than the previous quarter's 9.1, but significantly lower than the 9.7 multi-year high reached in the 2nd quarter of 2016, just after the last interest rate hiking cycle had peaked.

The slight increase (deterioration) in the Debt-Service Ratio in the 1^{st} quarter of 2018 was due to a rise in the Household Debt-to-Disposable Income Ratio in that quarter. This may be offset in the 2^{nd} quarter by a late-March 25 basis point interest rate reduction. We are not yet convinced that we have yet reached the start of a sustainable rise in the Debt-to-Disposable

Income Ratio, but weak economic and thus Household Disposable Income growth of late is making it increasingly difficult for the Household Sector to further lower its Debt-to-Disposable Income Ratio.

Despite the slight quarterly deterioration in Debt Affordability, at 9.2 the Debt-Service Ratio remains moderate compared to the painful highs of near 14% in 1998 and 2008.

CONCLUSION

The recent downward (improving) trend in FNB's 2 major Housing Market affordability Indices "stalled" in the 1st quarter of 2018, rising very slightly quarter-on-quarter after previous quarterly declines.

While average house price growth was slow, quarter-on-quarter Per Capita Household Disposable Income growth was even slower, constrained by an economic contraction in the 1st quarter.

We don't yet believe that this spells the end of the real house price correction and resultant home affordability improvements, but this 1-quarter "stalling" in the trend does suggest that in an environment of long term economic weakness, implying slow Household Income growth, further affordability improvements are likely to be slow going even should low single-digit house price growth rates continue.