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MARKET ANALYTICS AND  
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## PROPERTY BAROMETER

### Household Sector Debt-Service Risk

*Household Sector vulnerability in terms of servicing debt has been rising in recent times (deteriorating)*

The 1<sup>st</sup> quarter 2018 FNB Household Sector Debt-Service Risk Index rose (deteriorated) from a revised 5.26 in the prior quarter to 5.43 (scale of 0 to 10). This means that Household Sector vulnerability to interest rate and economic shocks, which could compromise ability to repay debt, has recently begun to rise, from a revised multi-year low of 5.14 as at the 1<sup>st</sup> quarter of 2017.

The key contributor to this deterioration (increase) in the level of vulnerability was, firstly, a loss in declining momentum, and then more recently a rise, in the Household Debt-to-Disposable Income Ratio.

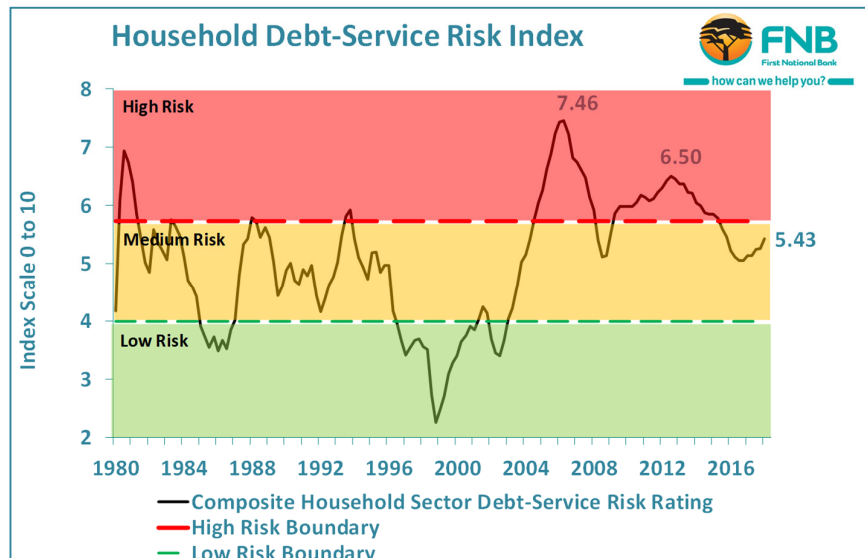
A renewed move to a higher level of indebtedness would imply that the Household Sector once again starts to become more sensitive to interest rate hiking, after significantly reducing this sensitivity over the past decade.

#### THE FNB HOUSEHOLD SECTOR DEBT-SERVICE RISK INDEX

The June 2018 SARB (South African Reserve Bank) Quarterly Bulletin gave us the 1<sup>st</sup> Quarter 2018 picture of Household Sector Income and Indebtedness.

From this data, we calculate our Household Debt-Service Risk Index, which indicates that the vulnerability of the country's household sector when it comes to being able to service its debt in future, increased (deteriorated).

The revised data indicates that, after prior decline (improvement) from late-2012 to early-2017, the Index has risen (deteriorated) from a low of 5.14 in the 1<sup>st</sup> quarter of 2017 to 5.43 in the 1<sup>st</sup> quarter of 2018 (a further increase from the previous quarter's revised 5.26).



This is a negative development, reflective of a slowing in the pace of decline in the all-important Household Sector Debt-to-Disposable Income Ratio through 2017, and then a 1-quarter increase in this ratio in the 1<sup>st</sup> quarter of 2018.

This recent rise (deterioration) means that, although the Index remains in what we term the Medium Risk Zone, it is now trending upward towards the higher end of the Medium Risk Zone and the border with the “High Risk” Zone. At 5.43, the level of Household Sector Vulnerability remains far better (below) than the multi-decade high of 7.46 reached at a stage of the housing market bubble back in 2006, but the recent rising (deteriorating) trend is an early warning sign.

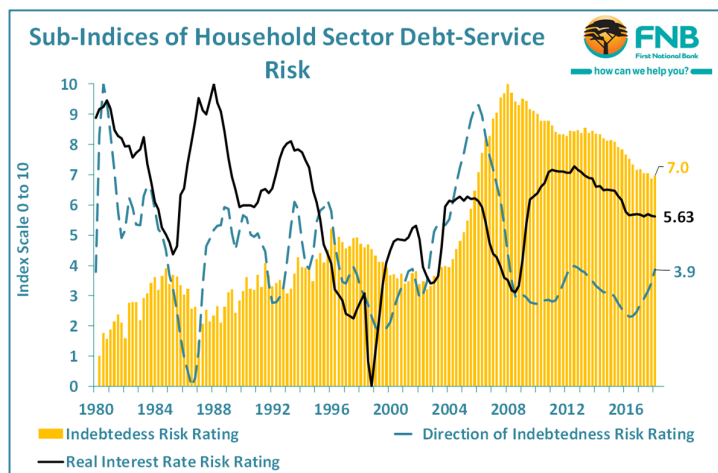
### HOW THE INDEX IS COMPILED

The index is compiled from 3 variables, namely, the Debt-to-Disposable Income Ratio of the Household Sector, the trend in the Debt-to-Disposable Income Ratio, and the level of interest rates relative to long term average/“structural” (5-year average) consumer price inflation.

The higher the Debt-to-Disposable Income Ratio, the more vulnerable the Household Sector becomes to unwanted “shocks” such as interest rate hikes or downward pressure on disposable income. An upward trend in the Debt-to-Disposable Income Ratio contributes negatively to the overall risk index and vice versa for a downward trend. Then, the nearer prime rate gets to the “structural” inflation rate (using a 5-year average consumer inflation rate as a proxy), i.e. the lower this estimate of real interest rates becomes, the more vulnerable the household sector becomes, the reasoning being that the nearer we may be getting to the bottom of the interest rate cycle and the end of rate cutting relief, the more the risk of the next rate move being upward becomes, or at least the less the chance becomes of further cuts. In addition, households tend to make poorer borrowing and financial decisions on average, while it is tougher for lenders to assess aspirant borrowers, when money is cheap, so better borrowing/lending decisions are arguably made when interest rates are relatively high. Therefore, we view low interest rate periods as ones where risk generally builds up.

### THE 3 SUB-INDICES

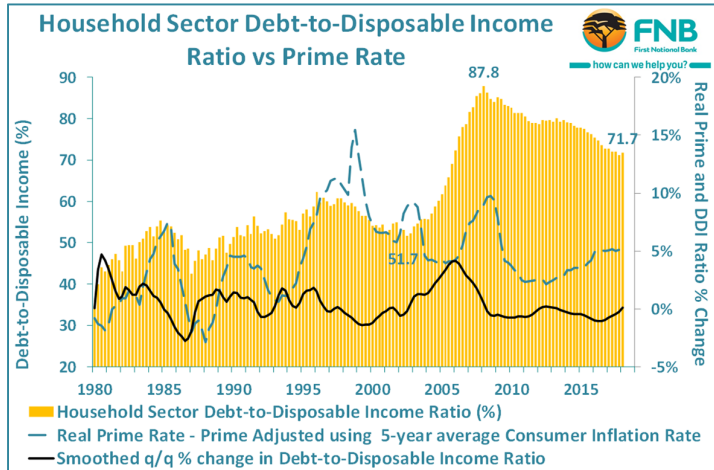
Examining the 3 sub-indices of the overall Household Sector Debt-Service Risk Index, the Indebtedness Risk Sub-Index remains the highest at 7.0 in the 1<sup>st</sup> quarter of 2018, slightly higher (worse) than the 6.9 of the prior quarter.



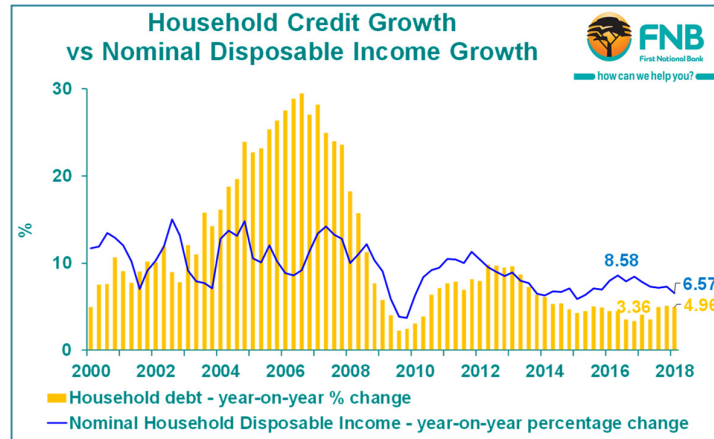
However, it is the “Direction of Indebtedness” Risk Rating that has caused the most deterioration in the overall Debt-Service Risk Index. Off a low base of 2.3 in mid-2016, this Index has moved noticeably higher to 3.9 by the 1<sup>st</sup> quarter of 2018. This has been due to a loss of downward momentum in the Debt-to-Disposable Income Ratio initially, and then a rise in the Ratio in the 1<sup>st</sup> quarter of 2018.

The Real Interest Rate Risk Rating remains almost neutral in recent times, having moved almost sideways over the past 2 years, recording a level of 5.63 in the 1<sup>st</sup> quarter of 2018.

**THE KEY VARIABLES CONTRIBUTING TO THE LEVEL OF HOUSEHOLD SECTOR DEBT-SERVICE RISK**



The declining trend in the Household Sector Debt-to-Disposable Income Ratio “stalled” in the 1<sup>st</sup> quarter of 2018, to increase from 71.2 in the previous quarter to 71.7. It is too early to conclude that this is the end of its multi-year declining trend, but what has become apparent is that the ratio has increasingly battled to make further progress lower in recent times.



The Debt-to-Disposable Income Ratio’s downward progress has been increasingly hampered since 2016 by slow economic growth along with rising personal tax rates, to name 2 key factors, translating into slowing Household Sector Nominal Disposable Income growth, on the one hand, and mildly faster Household Sector Credit growth of late on the other.

Year-on-year, Nominal Disposable Income growth has slowed from an 8.58% multi-year high in the 2<sup>nd</sup> quarter of 2016 to 6.57% by the 1<sup>st</sup> quarter of 2018, while at 4.96% year-on-year the rate of Household Sector Credit growth is

mildly elevated from the 3.36% multi-year low recorded in the 4<sup>th</sup> quarter of 2016.

The smoothed quarter-on-quarter percentage change in the Household Debt-to-Disposable Income Ratio has thus gone from -1.1% decline in the 2<sup>nd</sup> quarter of 2016 to +0.1% increase in the 1<sup>st</sup> quarter of 2018.

**IN SHORT, DEBT-SERVICE RISK HAS STARTED TO MOVE IN THE “WRONG” DIRECTION**

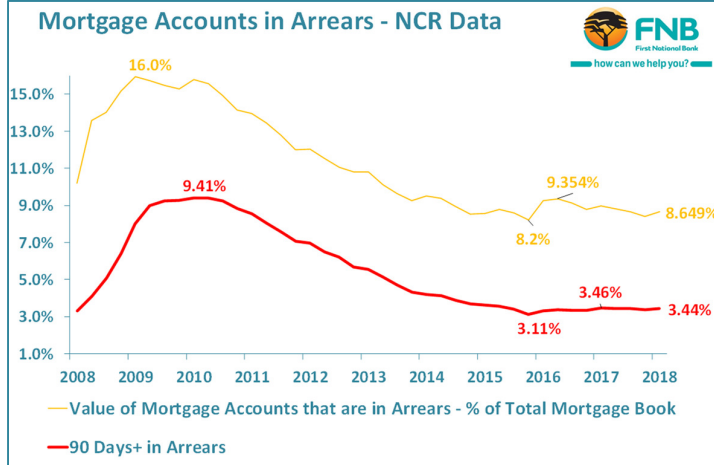
In short, the Debt Service Risk Index in the 1<sup>st</sup> Quarter of 2018 deteriorated (increased), continuing a recent upward move that started early in 2017. The Index remains in Medium Risk territory, but has moved to the higher end of the Medium Risk Zone. The deterioration is more reflective of weak economic conditions constraining Household Disposable Income growth, while mildly faster Household Credit growth remains at benign levels.

It serves to emphasize that in this “slow-to-no-growth” economy there exists very little room for mortgage lenders, or other retail credit providers for that matter, to grow their lending noticeably without raising the vulnerability of households to interest rate hikes and economic shocks.

## ACTUAL DEBT-SERVICING PERFORMANCE

But while Debt-Service Risk is on the increase, what can be said of actual mortgage credit performance?

**There have recently been signs of mild increase in actual financial stress related to the Housing and Mortgage Sector, but the levels of stress remain moderate.**

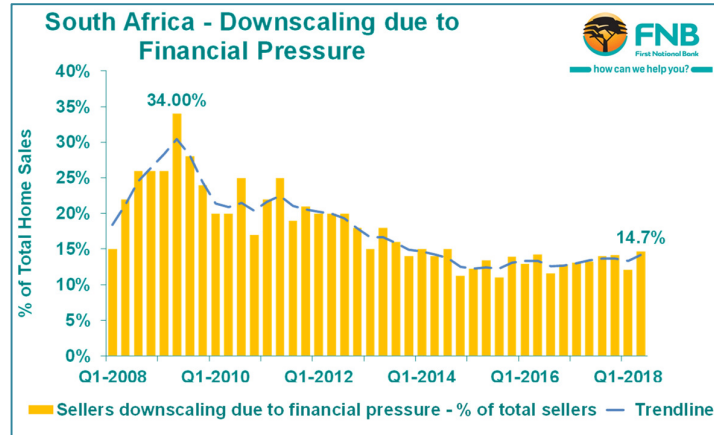


Debt servicing performances have been good in recent years, and this continues to be the case. We are particularly interested in Household Sector Mortgage stress levels, and these remain relatively low. However, Household Sector Mortgage Arrears in the 1<sup>st</sup> quarter of 2018 were off their best (lowest) levels. The total value of these arrears measured 8.649% of the total value Household Sector Mortgage Advances, slightly higher than 8.399% in the previous quarter and more noticeably higher than the post-2008/9 “crisis” low of 8.204% recorded late in 2015.

However, while slightly deteriorated since 2015, at 8.649% of the total value of Household Sector

Mortgage Accounts, the level of Mortgage Arrears remains sharply down on the 16% high reached in the 1<sup>st</sup> quarter of 2009.

Non-Performing Loans for the Household Mortgage Sector (these we define as all loans in arrears for longer than 90 days), too, are slightly worse than the late 2015 low of 3.11% of total advances, measuring 3.44% in the 1<sup>st</sup> quarter of 2018, slightly higher than the 3.36% of the prior quarter.



A similar slightly weakened position is seen when viewing the FNB Estate Agent Survey’s estimates of the percentage of sellers “selling to downscale due to financial pressure”.

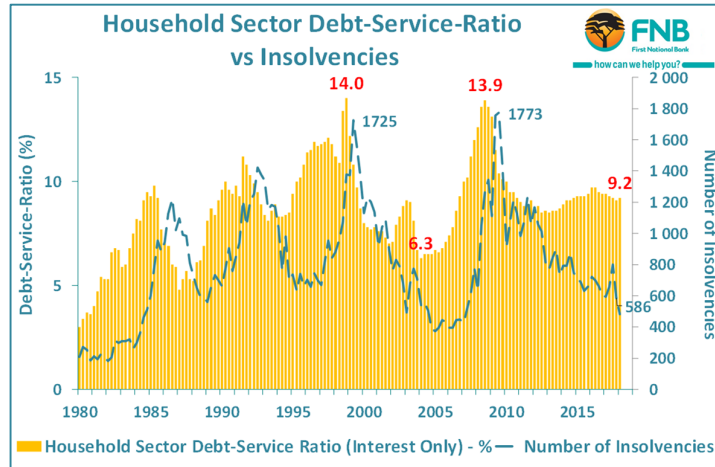
From a post-2008/9 “crisis” low of 11% recorded in the 3<sup>rd</sup> quarter of 2015, this estimate has broadly risen to reach 14.7% by the 2<sup>nd</sup> quarter of 2018, the highest estimate since the 3<sup>rd</sup> quarter of 2014. This level too, though, remains significantly better than the extreme level of 34% reached in the 2<sup>nd</sup> quarter of 2009.

**The level of financial stress in the Housing and Mortgage Market thus remain vastly better**

**than the 2008/9 Financial Crisis period, but mildly deteriorated since 2015, reflective of the stagnant economy that we find ourselves in.**

## THE DEBT-SERVICE RATIO

The single-most important macro-predictor of the level of Household Sector Credit Stress is arguably the Household Debt-Service Ratio. This ratio reflects the cost of servicing the Household Sector Debt, interest only, expressed as a ratio of Household Sector Disposable Income. Its drivers are thus the value of Household Sector Debt, the value of Household Sector Disposable Income, and the average level of interest rates on Household Sector Debt.



The Debt-Service Ratio rose slightly in the 1<sup>st</sup> quarter of 2018 to 9.2, from 9.1 in the prior quarter, on the back of a slight rise in the debt-to-Disposable Income Ratio. The level is far below the 2 major historic “points of pain” of the past few decades. The 1<sup>st</sup> such “point of pain” was a ratio of 14 reached in the final quarter of 1998, as average quarterly Prime Rate peaked at 23.3% in that quarter (and as high as 25.5% very briefly in the prior quarter). The 2<sup>nd</sup> such high was a peak of 13.9 a decade later in the 3<sup>rd</sup> quarter of 2008, when Prime Rate peaked at a far lower 15.5%.

The reason for the far lower interest rate peak in 2008 causing virtually the same painfully high peaks in the debt-Service Ratio as 1998, was that in the final quarter of 1998 the Household Debt-to-Disposable Income Ratio was a lowly 58.8, whereas in the 3<sup>rd</sup> quarter of 2008 it was a far higher 84.7.

Using Insolvencies as an indicator of Household Sector Credit Stress levels, due to its long term history, we saw that just after both the 1998 and 2008 Debt-Service Ratio spikes insolvencies peaked at extreme levels not seen at any other time in recorded history, 1,725 recorded insolvencies in the 2<sup>nd</sup> quarter of 1999 and a slightly higher peak of 1,773 in the 3<sup>rd</sup> quarter of 2009.

In other words, the high level of indebtedness in 2008/9 meant that a Prime Rate peak of 15.5%, a massive 10 percentage points lower than the 25.5% in 1998, could cause similar financial pain, due to a far higher level of indebtedness in 2008 compared with 10 years prior.

**The most recent 9.2 Debt-Service Ratio level is mildly elevated from its early-2013 decade-low of 8.5, and this mildly elevated ratio arguably explains the similar mildly elevated levels of mortgage arrears and financial pressure-related downscaling of properties since lows of a few years ago.**

### SO HOW VULNERABLE IS THE HOUSEHOLD SECTOR TO INTEREST RATE HIKING?

Finally, this then begs the question, given the most recent Household Sector indebtedness level, what hypothetical Prime Rate peak would take the Debt-Service Ratio to a level of 14, and cause similar credit stress to 2008/9 again?

The answer is a level of approximately 16.9% Prime Rate. Given the current average effective interest rate on Household Debt as well as the Debt-to-Disposable Income Ratio, a Prime Rate of approximately 16.9% would be required to lift the Debt-Service Ratio to 14.0, a very similarly painful level to those reached in 2008 with a Prime Rate peak of 15.5%, and in 1998 with a Prime Rate peak of 25.5%.

With Prime Rate currently at 10.00%, this means South Africa’s Household Sector has built itself an additional “financial buffer” to what it had in 2008, through today having a significantly lower Debt-to-Disposable Income Ratio.