

### HOME LOANS DIVISION

# HOUSING AFFORDABILITY

-Short term improvement, but longer Term deterioration still anticipated as urban land scarcity bites

### PROPERTY AND MORTGAGE MARKET ANALYTICS

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#### AFFORDABILITY PER HOUSE APPEARS TO BE BACK AROUND THE LONG TERM AVERAGE. CAN WE EXPECT ANY FURTHER IMPROVEMENT?

Some claim that housing in South Africa has become "un-affordable", that prices are crazy, and that ultimately there must be a massive "downward correction, perhaps back to the dirt-cheap 1998/99 levels prior to this decade's property boom.

But just how badly housing affordability has really deteriorated? Firstly, it would be too simplistic to merely use the cumulative rate of price increase over the boom period as an indicator of affordability deterioration. Also, when wanting to examine the REAL change in house prices, it would probably be more desirable to use average remuneration (wage) or income with which to deflate nominal house prices as opposed to using the consumer price index (CPI), as CPI is not as good an indicator of home purchasing power changes. So, at the very least, there are 3 key variables that must be included in any housing affordability calculation. These are, firstly, house price change, secondly, income change, and finally, because so many people use credit to purchase homes, the cost of credit or, otherwise put, interest rate changes.

For cash buyers, the average price/average remuneration ratio is all-important. For the credit buyer, the instalment repayment value on a 100% loan on an average-priced house/ average remuneration ratio, is a better indicator of affordability trends.

There can be little doubt that during the main boom years earlier in the current decade, both measures of affordability showed a massive increase (i.e. deterioration).

Using the FNB House Price Index, which dates back to mid-2000. From July 2000 to the peak of the House Price Index's existence in February 2008, the cumulative house price inflation that took place was estimated at 192.8%. By comparison, average nominal remuneration per worker (used as a proxy for average income) as reported by the SARB, rose cumulatively by a lesser 81.3%. The net result was that the average price/average income ratio index rose significantly by 62% from the 3<sup>rd</sup> quarter of 2000 to its peak (worst level of affordability) in the 1<sup>st</sup> quarter of 2008.



\* 2<sup>nd</sup> quarter is a forecast, due to average wage data only being available up until quarter 1.

The graph above shows that the 2<sup>nd</sup> measure of affordability, which brings interest rates into the equation, showed a cumulative increase over the same period that was almost exactly the same as the 1<sup>st</sup> measure, although it stayed lower for longer due to prime rate remaining low at 10.5% until mid-2006. From the 3<sup>rd</sup> quarter of 2000 to the 1<sup>st</sup> quarter of 2008, the cumulative increase in the instalment repayment on a 100% loan on the average priced house, expressed as a percentage of average income, was also 62%.

Since the 1<sup>st</sup> quarter of 2008, however, we have seen a considerable improvement in both measures of affordability, due to the combination of house price deflation and substantial interest rate cuts.

Since the 1<sup>st</sup> quarter of 2008 the average price/average income ratio index is estimated to have fallen 13% to the 2<sup>nd</sup> quarter of 2009 (average remuneration inflation was assumed to be the same as Q1, due to labour data only being available up until Q1 2009), while the instalment repayment/average income ratio is estimated to have fallen by a larger 25% over the period due to the additional contribution of 5 percentage points' worth of interest rate cuts since late-2008."

In other words, both measures of affordability are estimated to have dropped back (improved) to levels last seen in the 2<sup>nd</sup> half of 2004. A significant portion of the property boom's affordability deterioration has thus been "corrected", although by no means all of it.

## HOW MUCH FURTHER DOES THE AFFORDABILITY "CORRECTION" GO AND WHAT LEVEL OF AFFORDABILITY IS APPROPRIATE?

#### AFTER RECENT AFFORDABILITY IMPROVEMENTS, WE APPEAR TO BACK AT THE LONG TERM AVERAGE LEVEL

In order to get a better perspective of where we are in terms of affordability levels, it would perhaps be better to go back a few decades. Absa has maintained house price data series originating in the 1960s, giving us the ability to analyse long term trends. Examining the long term trend back to 1970 (can't go further back because wage data only starts in 1970), it has become apparent that after the decline (improvement) in both measures of affordability since last year, by the first quarter of 2009 both measures were very close to the long term (1970-Q1-2009) average affordability level as indicated by the red and black dotted lines respectively.



Data Sources: Absa; SARB

For those who believe that long term trend averages should be the level to which a market should always return, that should signal that the recent market "correction has more-or-less been completed. For those who see the very good affordability levels of the late 1990s as "normal", implying that this decade's property boom was perhaps irrational", the "correction" still has a long way to go before being completed.

#### WHERE DO WE BELIEVE AFFORDABILITY LEVEL SHOULD BE?

Where do we stand? Well, firstly, we don't believe in long term averages necessarily being the indicator of appropriate affordability levels, because such averages don't allow for structural changes in the economy over time. Rather, the economic performance of the time is a key driver of the appropriate affordability level.

The graph above shows the late-1980s and most of the 1990s to be a time of highly affordable property in terms of the 2 measures used, for the most part well-below (better than) the long term trend. This stands to reason, because these standard measures of affordability do not include an indicator of the country's economic performance. The 2 graphs below sum up the 80s and 90s as the period where the country suffered from economic stagnation until the early-90s, and extreme interest rate levels until 1998/99. Those were days when households had to be more cautious with their borrowing, confidence was lower, and at mediocre growth rates it was relatively easy for the development/construction sector to create oversupplies at any hint of a demand surge. All of this created the environment for a better affordability reading than stronger economic times. The better-than-average affordability levels were therefore appropriate for the times.

By contrast, the current decade was a period where we returned to real economic growth rates similar to those last seen in the late-1960s/early-1970s. Simultaneously, due to the country's consumer price inflation having been on a 2-decade-long broad decline, and due to a move to official inflation targeting, we saw interest rates dropping to levels also resembling those relatively low ones last seen in the 70s. Under such improved conditions, we believe that it a significant price rise and affordability deterioration was inevitable, and early-1970s levels of affordability would appear to have become more appropriate as the economy's performance "normalised" post-isolation.



#### SHORT TERM IMPROVEMENT IN AFFORDABILITY LIKELY

But recently, we've followed the World Economy into a sharp recession, and we're not expecting much more than mediocre 2% real economic growth in 2010 after negative growth for the current year. That's not the early-70s growth we've just been talking about. Under the current conditions, it is probably realistic to expect further affordability improvement in the near term. However, it looks likely that this will not take place in the form of further nominal price deflation. The FNB House Price Index is steadily coming out of year-on-year price deflation, and by year-end should be showing a rise again, on the back of some market strengthening as a result of 5 percentage points' worth of interest rate cuts since late-2008 and an economy gradually emerging from recession. What is more likely, therefore, is that a mediocre growth economy will lead to single-digit house price inflation in 2010, and wage inflation slightly outstripping it. This, coupled with the expectation of flat interest rates for a lengthy period, sets the scene for some further near term improvement (decline) in both affordability measures.

#### IN THE LONGER TERM, HOWEVER, THE BELIEF IS THAT A MOVE TOWARDS GREATER LEVELS OF IN-AFFORDABILITY WILL TAKE PLACE, DRIVEN BY GROWING LAND SCARCITY

In the longer term, though, the belief is that affordability has to deteriorate well-beyond even the early-1970s levels, causing a huge change in the way the South African middle class lives. As a matter of fact, if we could measure affordability per square metre and not per house, we would probably find that today's affordability is indeed significantly worse than the early-1970s already, and we believe that this long term deterioration will continue. This expected affordability deterioration is driven by 3 factors:

Firstly, once the US and other western economies have resolved many of their imbalances which aided the recent financial and economic crisis, one should expect the global economy to return to more solid growth, which should imply more respectable 4-5% South African growth rates returning.

- Secondly, unlike property, motor vehicles have seen their affordability improve since the early-1990s in SA, contributing to the country's steadily increasing long term congestion problem around the major metros (the country's biggest property markets)
- Thirdly, while we have seen some improvement in transport infrastructure investment in recent years, the
  government's fiscal condition is probably not yet of such a nature that transport infrastructure backlogs will be
  wiped out quickly, especially given that public transport normally requires heavy financial support in relatively low
  population density cities such as our own.

Increasing traffic congestion does 2 things. Over time it "naturally" restricts the pace of urban sprawl as an increasing number of people start to see the benefits of living nearer to their place of work. This is a change from the old SA tradition of being happy to live relatively far away, which was accommodated by once-ample road infrastructure. We have thus already seen an increased focus on "location, location and location", with preferred location increasingly being near to major business nodes or on good transport routes to the major business nodes, or sometimes even near to good schools to spare one's children from a lengthy wait in traffic daily. It almost seems, therefore, that more affordable motor vehicles (applying the same 2 affordability measures to the vehicle price index of the CPI) implies more expensive property. Increased congestion has also begun to create a public transport focus, helped on by the approaching 2010 World Cup. This public transport will require funding, however, and this will probably require significant densification in order to create larger demand for it within a smaller area, simply put. One should thus expect increased policy focus on densification and limiting of urban sprawl as time goes by – good in terms of driving up urban land values.



With councils' limited financial and delivery capacity with which to roll out new infrastructure, established suburbs with good infrastructure have often become preferred location even if they haven't always been particularly well-situated relative to major business nodes, causing sub-division and densification.

The above factors, due to their placing limits on urban sprawl, effectively create an urban land scarcity, which in turn exerts upward pressure on urban land prices, which in turn further promotes densification. This is a process that has been taking place over the past 2 decades or so, and can probably linked to the end of the previous big government infrastructure investment boom, which ran out of steam post-1976 as the economy stagnated, and the internal and external security situation required increasing amounts of resources. More recently, it has been social spending backlogs and a lack of financial management which has plagued many local governments, curbing the pace of infrastructure roll-out.

GOOD NEWS FOR PROPERTY INVESTORS, BUT LONG TERM GROWTH IN LAND SCARCITY IS CHANGING THE WAY WE LIVE





And so, FNB Valuations data shows a gradual long term change in the structure of residential stock built, which will forever change the middle class lifestyle. Much of the change in the characteristics of what gets built is related to attempts to address the affordability issue. The main affordability improvement drive to date has been in the form of reducing stand sizes considerably. After great growth years in the 60s and early-70s, and a huge fixed investment drive by general government around the same time, it is noticeable that from the second half of the 1970s the average size of stand for new homes built started to diminish steadily. On average, full title homes valued during the current decade by FNB, but which were built from 1970 to 1974, had an average stand size of 1068 square metres, but this had declined to almost half the size at an average of 588.5 square metres for full title homes built from 2005 to 2009.

The peak in average building size is also seen in the homes built from 1970 to 1974, at 203 square metres. Deteriorating economic times caused a reduction in average size to a low of 148.4 square metres for buildings built from 1995 to 1999, that period of extreme high interest rates. The average size of building constructed recovered somewhat in the current decade, when economic times improved, averaging 173.7 for 2000-2004, but receded again in 2005-2009 to 159.6 square metres.

What comes out here is that middle class South Africans are seemingly a little more reluctant to settle for a smaller home than they are to settle for a smaller stand size, although building sizes are also under some pressure. So the drive to address deteriorating property affordability comes more through steadily reducing average stand size than through reducing average building size.

The need to economise on space also perhaps comes out to a certain extent in the steady reduction in one of those luxuries that is perhaps unique to SA and an Apartheid legacy, namely the existence of domestic workers' quarters. Although the



trend towards a lower percentage of buildings built with workers' quarters started back in the 1960s (prior to land scarcity becoming greater), and is partly reflective of somewhat outdated practices of "live-in" domestics gradually being abolished, it is also very likely that the steady downward trend was hastened by the need to use space more effectively.

From 57% average in the 1955-59 batch of homes that were built, the percentage of freehold buildings built with workers' quarters had declined to a 13% average in the 2<sup>nd</sup> half of the 1990s, where the percentage appeared to level out, while sectional title buildings saw only 1% of stock being built with workers' quarters in the 2005-09 period.

Unsurprisingly, more recently built stock also sees a greater portion of buildings in the "2 bedroom and less" category, while the "4 bedroom and more" category has declined in importance. This is probably partly reflective of the drive to address affordability and accommodate first time buyers in greater numbers, but is also admittedly due to changing demographics which includes a smaller average size of household. The smaller average size of household has been partly caused the growing affluence of sections of previously-disadvantaged groups during the better economic years, which implies in many instances setting up household at an earlier age than their parents' generation. Long term declines in fertility rates have also played a role. Hence, a greater need for a larger supply of stock with less bedrooms. From 36.7% of the homes valued that were built from 1975-9, "4 bedroom and more" homes have declined as a percentage of total to 14.4% of homes built from 2005-2009. In contrast, 2 beds and less have risen in share from 13.6% of all homes valued that were built from 1975-9, to 27.9% of the total built from 2005-9.





#### IN CONCLUSION – SHORT TERM AFFORDABILITY IMPROVEMENT, BUT IN THE LONG TERM AN EXPECTED SHIFT TOWARDS FAR LESS AFFORDABLE PROPERTY, DRIVEN BY INFRASTRUCTURE AND SERVICES CONSTRAINTS, AND THE NEED FOR DENSIFICATION.

In the short term, the negative impact of the recession on property is expected to cause house prices to decline further in real terms (though probably not in nominal terms going forward), which in turn should cause the 2 main housing affordability measures to improve (decline).

However, in the longer term, it is anticipated that real economic growth will ultimately return to the more respectable 4-5% levels, as the global economy gradually sorts out its current issues. In addition, a shortage of various infrastructure and services around the country's major urban centres, notably in the area of transport infrastructure but also in terms of essential services to residential properties, has effectively caused a gradually growing land scarcity. This can be positive from a point of view of long term capital growth. Transport system congestion means an increased focus on location, and an effective slowing of urban sprawl, as the focus has to be increasingly on being located nearer to major business nodes or on a good transport route.

The 2 main affordability measures work on a "per unit" basis, and thus do not take into account a change in the structure of property. Over time, data extracted from FNB Valuations data (of properties valued since 2000) shows significant changes over the long term in the characteristics of new properties built. Most important, average stand size of newly built homes has declined significantly since the 1970s, as well as there having been a broad decline in the average size of home built. The "2 bedroom and less" focus has increased, in response to smaller average-sized households, while luxuries such as domestic workers' quarters are a dying characteristic.

Much of the change in the design and size of new homes and their stands has to do with a deterioration in long term affordability due to land scarcity (although don't count the impact of building cost surges in recent years out). While the simplistic view would be that following an affordability deterioration, such as the deterioration that accompanied the property boom a few years ago, one necessarily has to see a downward "correction" in property prices, this is not necessarily the case.

Rather, the market often adjusts over time by merely providing "less property for the same price" as opposed to "the same property for less price". And so, over time, we will probably end up paying "more for less", i.e. deteriorating affordability (good for the investor but bad from a middle class lifestyle point of view), and the urban densification process will continue.

The challenges that this presents are numerous. It is old news that we may be facing further Eskom rate hikes, municipal rates have seen significant increases for the middle and upper income groups, and don't count water supply costs out either. In short, the costs of household operation look set to carry on escalating, with urban infrastructure coming under pressure and the money being required to come from somewhere.

It goes further than electricity and water supply, though. Our cities arguably require densification of living and working to make mass public transport more financially viable. How this densification process takes place becomes important, however. The Moving South Africa project of the Department of Transport in the late-90s suggested a "corridor" approach, where densification should be encouraged along certain key major transport corridors, while further away from the corridors low density development should be the order of the day. The idea would be to channel a large proportion of people's daily trips into a limited number of directions, which would make the provision of mass public transport easier.

Until the present, densification has been more "broad-based", and not as confined to the transport corridors as Moving SA would have probably liked, although the introduction of the Gautrain, and planned high density developments may begin to make the corridor concept far more popular. And with government having to foot much of the bill for the establishment and running of mass public transport, one would expect more policy focus on pushing densification in years to come, in order to make public transport more financially viable.

The challenges go further, with the education and health authorities required to keep up with the provision of their services. Noticeable in many metro suburban areas has been reported overcrowding in some government schools.

These are some of the future realities and challenges that probably face future middle class suburban citizens in the 4 biggest metros to a greater or lesser extent, as the land scarcity issue mounts (land scarcity referring to serviced land where transport infrastructure and business nodes are accessible). The various shortages lead us to believe that, despite the current slump which has improved the 2 measures of affordability, the long term will still see a gradual deterioration in property affordability. Mounting congestion also leads to the belief that, even more so than at present, achieving superior property investment returns will be increasingly about proximity of property to major business nodes, key service facilities such as top schools, or proximity to "state of the art" transport infrastructure and services.