Chapter 2: General article

Housing Bubble

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We know equity markets can 'bubble', going up many-fold before folding, sometimes crashing into a heap. Think Dow Jones 1929. JSE 1969. Nikkei 1989. NASDAQ 2000.

But does quite the same thing happen to housing?

Certainly Japanese and Hong Kong property cycles have known violent episodes. The British tend to experience major property cycles every few years. How does South Africa shape?

Gaining clarity about what constitutes a 'bubble' may be useful, putting equity market movements in context, and providing a basis for looking at our housing market.

According to Fed chairman Alan Greenspan, a rise in equity prices constitutes an equity bubble if equity prices subsequently fall by 40% or more.

His successor, Ben Bernanke, identifies a bubble as a price movement completely divorced from fundamentals.

Robert Shiller (the author of *Irrational Exuberance*) sees a speculative bubble as a situation in which temporarily high prices are sustained largely by investors' enthusiasm rather than by consistent estimation of real value.

So NASDAQ rising from nothing to 5400, crashing back to 1000 and subsequently recovering to 2200 qualifies as having gone through a bubble experience, in the exuberant stage being quite unconnected to the wheels, crashing by 80% and only recovering part of the way while remaining soberly related to the fundamentals.

South African house prices these past 30 years have gone through exuberant episodes, such as the 1980 gold boom and the recent 2001-2005 run-up, but were such strong price surges followed by 40% or better busts, and did we ever completely leave the fundamentals behind? These are apparently the tests that have to be satisfied before we can talk of 'bubbles', also in housing.

On either score, the evidence isn't convincing. Indeed, our housing history doesn't come close to suggesting bubble dynamics.

Firstly, let's look at the evidence regarding price declines, trying to satisfy the Greenspan test of a bubble.

Truly clever people do succeed in buying houses at 50% discount in times of extreme market stress, and of course never stop talking about it. So they bought the daughter's apartment for a song in 1998 (at the property trough induced by prime 25%), bought the beach house for a song in 1985 (another property trough induced by prime 25%), and bought their main residence for a song back in 1976 (at the height of the Soweto riots, when confidence plummeted, and the property market with it). The grandparents probably bought their house following Sharpeville in 1961 for, you guessed it, a song.

Such luck. There are real stories like that, and suggest that our house prices are episodically reduced to rubble, thereby satisfying Greenspan's bubble definition.

Yet on average looking back over our historic house price movements in recent decades this hasn't been our national experience at all.

Sure, 1976 was bad, but house prices didn't fall by more than 7% by 1977 before recovering. In fact, 1985 was as bad but not any worse either, with the price depression lasting slightly longer, before recovery set in.

Interestingly, 1993 ahead of the 1994 political watershed wasn't a happy year either, prices moving sideways with all that uncertainty overhanging the market. But there wasn't a price decline, except a miniscule one-quarter one. Even more interesting was 1999, with only a one-quarter 3% dip in response to 1998's 25% prime. The price decline was very limited because the interest rate shock didn't last as long as it had in 1984-85.

Some observers, such as Erwin Rode, consider the downside risk in South African house prices to be in the order of 10%. Going by the Soweto riots, the 1994 political watershed and two prime 25% episodes, one wonders what needs to happen to actually fully achieve the 10% downside rule-of-thumb.

So Greenspan's definition of a bubble condition hasn't been even closely satisfied on these historic occasions in South African house prices.

But that still leaves the Bernanke-Shiller definitions to be tested. Did we at times become exuberant beyond all reasonableness, completely disconnecting house prices from their fundamentals, setting such heavily overvalued house prices up for a sizeable correction?

The answer is again a resounding 'no'.

We can approach this Bernanke-Shiller test from two directions, an important point that needs to be made (and is hardly ever made to my knowledge).

Firstly, the periods of limited house price stress as discussed above didn't occur after periods of exceptional price increases where prices had clearly become hugely overstated.

The Soweto riots hit a fairly unexcited housing market in the mid-1970s, probably fairly valued at the time. The same was true in the mid-1990s and at the end of the 1990s. These were ambushes out of left-field, but they didn't catch an elevated exuberant market.

As for 1984-1985 (the only real suspect), the 1980 gold boom was by then history. House prices were certainly not undervalued when the 1984 interest rate shock came. But because inflation was so very high at the time (15%-20%), any large nominal gains in house prices during 1982-1984 (20%-30%) didn't advance real prices exceptionally further from the real levels achieved in 1980-81 (which in any case had a lot of catch-up in them from depressed undervalued values of the mid to late 1970s).

So we didn't experience nominal price declines of 40% or better, and the minimal declines that did happen took place under enormous stress from events in the absence of exuberance.

That leaves one last test: did our house prices ever part ways with their fundamentals, to such a degree that we can designate them exuberant and thereby 'bubbly' (and ripe for the pricking)?

Sorry for disappointing the bubble enthusiasts, but even after the doubling in prices since 2001 the answer is again negative.

The 1979-1984 period was an exhilarating one, but in retrospect it probably never quite did get out of hand as much as what some people thought at the time. In nominal terms, house prices tripled, but this came from depressed values in the late 1970s, and the CPI index nearly doubled during 1979-1984 as inflation raged.

So we have known great surges in house prices, especially in the 1979-1983 and 1988-1992 periods (both periods marked by high CPI inflation) and then again since 2000 (this time marked by low single-digit general inflation).

The inclination is to consider these surging price periods with suspicion and designate them 'bubble' episodes. For surely when price stampedes like these get underway we all get exuberant and a little crazy into the bargain, qualifying for the title of 'bubble'?

Well, not quite. For while price declines may not generally have started from heavily overvalued levels, our price surges have historically started from deeply depressed levels. Think 1979, 1987, and 1999. The latter year was preceded by four years of very little nominal house price increases, with emigration and labour force restructuring at a maximum, and an awful lot of glum people about, borne out by the FNB/BER consumer confidence survey.

Sentiment in formal housing during the late 1990s must have been at an historic low, going by these confidence surveys. All of this suggests catch-up potential, before getting into exuberance proper, but with the fundamentals not standing still either, steadily moving on as well.

What fundamentals?

For equity it is future profit streams from the capital investment in equipment and other structures and their replacement value. When it comes to housing, it is also the future stream of benefits that is at issue, relating back to the replacement cost of the house.

Companies' operating results are capable of showing losses or profits. With interest rates rising and falling, discounting such future income streams to present value, one can get to very high present values and very low ones. Sentiment further enhances or discounts such present values, easily giving rise to remarkable cyclical fluctuations in equity prices.

With housing, the situation is more stable. There, the income statement shows a pretty stable flow of living benefits over time. Only the interest rates fluctuate, influencing our sense of present discounted value, to which we can add further sentiment kickers or detractors.

But with a house one never is quite as preoccupied with discounting a variable income stream as one is with equity. Instead, the focus is on the underlying value of the asset (the house). Equity investors of course also should never lose sight of the underlying asset value of the company, but a company may come up with unexpected technological or organisational innovations and other creative approaches, allowing it to successfully conquer markets not foreseen by the initial asset base. This gives a different twist to equity investing.

Housing can also have something special (scarcity value as in "location, location, location!") but that generally only becomes clear over time.

Anyway, housing is a less volatile business than equity investing. But can it get as easily separated from its bedrock fundamentals as equity markets appear to do with some regularity?

The way to look at an existing house is to ask what it would cost to replace the house at present costs. Then deduct depreciation (houses get older too, wearing out at about 1% annually), and add a premium for any scarcity value. With the average formal housing stock in South Africa 25 years old (imagine, build in 1980s gold boom, no wonder the quality is iffy), an existing house today should discount at about 25% of new building costs.

Now, are you ready for a little comparative costing?

During the past five years (2001-2005),

average formal house values in South Africa just more than doubled, rising from an index value of 100 in January 2001 to 216 in October 2005.

That is the pricing curve we want to test against its bedrock fundamental (replacement cost). Although 2000 had already seen a lively price rise of 12%, the four preceding years (1996-1999) had seen minimal increases, suggesting undervaluation by the time the price surge started.

During 2001-2005, the Haylett formula (covering labour, materials, plant and fuel costs) rose from 100 to 141. Allowing for the fact that CPI proxied for labour costs, this is probably a minor understatement.

Once we add builder profit margins, as per the BER's Building Cost Index (BCI), we move from 100 to 185.

What is still missing from the comparison is land cost. Though I have no reliable index, my sense is a very major escalation in stand/plot prices, much faster than any of these indices, especially during 2003-2004.

When we add all this up, we start with Haylett (at 141), add an extra sliver for realistic labour costs (reaching 150), move on to BCI (at 185) and add the labour sliver there as well (reaching 194).

So house prices rose 10% more than new building costs, bearing in mind that there was probably still some undervaluation in house prices at the start, allowing catch-up, and we still have to allow for land/stand/plot price gains (a stand typically representing a quarter to a third of a newly-built house price).

This kind of reasoning doesn't suggest too much present overvaluation in existing house prices.

The following qualification does apply. Builder and developer profit margins have probably become quite elevated in recent years (to put it very mildly). That is air that can be abruptly let out of building costs the moment hard times and more competition materialize. One is guided here by the 30% gap existing between Haylett (141) and BCI (185). That gap is the equivalent of 20% of current new house prices.

Perhaps it is coincidental but that is the measure of existing house overvaluation that for instance Erwin Rode suspects in present house prices.

So how do our house prices evolve from here onward?

On past performance they won't decline catastrophically. Not even massive political events or prime 25% were capable of doing that, though for a long time during our struggle decades a high inflation rate was very forgiving to nominal price changes. That buffer is no longer there.

For the past twelve months there seems to have been a major change underway in our property market, probably driven by expanding supply, and demand resistance to escalating house prices (and developer profit margins?), especially at the upper end of the market (over R1 million).

Financial affordability is less of an argument, with outstanding bank debt only 62% of disposable income (half the level in Anglo-Saxon countries and parts of Europe) and a debt servicing burden of 6.5% of income (half that in the US and well below other Anglo-Saxon norms).

Still, starting in the higher price ranges, house price increases have steadily been subsiding since early 2005, to the point of average house price increases now only progressing at annualized single digits. This is only moderately higher than average wage and salary growth of 6% (and slower than national income growth of 10%).

Meanwhile, new building costs continue to rise. While projections are for a slowing here as well, due to increased capacity and competition, it remains to be seen how much of a slowing there actually is going to be in coming years as the public sector's infrastructure plans start to kick in. Projections talk of the BCI index slowing to 7% next year and only later in the decade speeding up again. Real building conditions may in fact remain tighter than this, allowing a slightly higher rate of cost increases to materialize.

As the new building cost and land cost curve keeps rising in coming years, existing house prices will re-acquire relative value while they lag. At some point, new events may then kick-start a new catch-up acceleration in existing house prices from temporarily stagnating levels now foreseen for next year.

As to risk, there is a downside and there is an upside.

On the downside, one can marshal risks from the past: political shocks sapping confidence and real interest rates of 10%-15% (prime 15%-20%) sapping financial means and morale.

On past performance, in a single-digit inflation environment, such shocks could create a nominal house-price downside of 5%-10% for a year or so.

Whereas the Presidential succession certainly carries heightened risk, it isn't so far obvious that we are facing an event equivalent of 1960, 1976 or the uncertainty of 1993. Indeed, the very opposite may happen, giving rise to euphoria (as happened in 1994-95).

As to interest rate risk of 15%-20%, China would have to implode, the commodity boom would have to be sunk, oil and food prices would have to rise massively and/or the dollar and US interest rates would have to go through the roof to get the kind of rand and inflation instability to warrant that kind of interest-rate shock. Though not entirely impossible, not very likely either.

One has to move on to far greater disaster scenarios, such as geopolitical events, global depression or massive epidemics, to get to the kind of disruption that could more decisively sink our property market for some time.

As to the upside, one would look for pleasant political outcomes and economic outperformance, probably windfall and infrastructure driven, accompanied by ongoing strong income growth, fast employment growth, interest-rate easing, high business and consumer confidence and very strong asset markets.

Against these benchmarks, our housing market is at present going through a bit of a breather after an enormous surge, with perhaps some more indigestion to be worked off in the coming year, but with the contour of the next marathon through 2010-2012 already taking shape.

Only a fundamental bad surprise out of left-field could torpedo such a scenario. This of course has regularly happened before. Just exactly what is the mix of surprises that await us in coming years? For good or bad, they will shape our housing price and cost curves.

As to housing bubbles, I haven't seen one in decades in the South African environment. ■

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