## Are House Prices Discounted?

## by Erwin Rode 3 October 2000

Commentators sometimes claim that house prices are about 25% below replacement costs, and that, hence, there is great upside potential for prices.

The problem with this figure is that it is calculated by comparing the average price of a sample of houses that are, on average, probably 25 years old with the present building-construction costs. This is an invalid comparison because a house's market value depreciates relative to replacement costs through ageing. The older the house, the greater the discount to replacement costs, in the absence of renovation.

There are only two ways of calculating the discount to replacement costs. The expensive (and most accurate) way is to compare the second-hand prices of houses not older than, say, 3 years with replacement costs. An alternative method is followed below.

In the accompanying graphs we compare the movement in home building costs and house prices since 1990. The gap in 1999 supposedly represents the discount or premium of prices to replacement costs. This calculation is premised on the following assumptions:

- Replacement costs and house prices were in equilibrium in 1990 (i.e. replacement costs and prices were the same).
- The Rode Home Building Cost Index is a true reflection of the movement in home building costs since 1990.
- Land prices grew at the same rate as building costs since 1990.

Of the three, the equilibrium assumption is probably the most critical. The year 1990 wasn't chosen because it is a round figure. This year represents the tail-end of a period of house price growth and it also marks the beginning of stable *real* house prices as a consequence of strict monetary policy. In spite of this, there is no guarantee that the individual cities analysed below were in fact in equilibrium.

As for the Rode Home Building Cost Index, the accompanying graph shows the relationship with the BER Building Cost Index, which is a non-residential contract index. In the long run one would expect them to grow at the same rate. The two indices follow more or less the same path until the mid-1990s. Thereafter, home building costs grew at a lower rate than non-residential contract prices, ending the 1990s about 13% lower than the BER index (average of 1999). Is this reasonable? We think it is, because it implies that residential home building activity was lower than non-residential — an altogether credible proposition. This is possible because the high interest rate regime during the latter half of the 1990s would have affected residential construction activity more than commercial and industrial. Low building activity of course results in lower contract prices because of keener tendering competition.

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The Durban graph seems to explain why Durban house prices suddenly started to stagnate in the mid-1990s. It is because prices were too high relative to replacement costs.

The results of this very rudimentary discount analysis is summarised in the table:

	Discount To Replacement Cost In 1999	Premium To Replacement Cost In 1999
Cape Peninsula		19%
Johannesburg	15%	
Pretoria	7%	
Durban	7%	

The 7% discount in the case of Pretoria and Durban is so small that it is probably not significant enough to take seriously, given the inherent inaccuracy in our method.



The 15% discount in the case of Johannesburg and the 19% premium in the case of Cape Town should be taken seriously, we believe. It implies that Johannesburg has lots of upside potential in the event of sustained economic growth and that Cape Town prices may just stagnate again as happened in the early 1990s. In sought-after areas like the Atlantic seaboard, where no new stands are manufactured, this prognosis may not apply or may apply to a lesser degree.

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