



## What's your house really worth?

### THE DIFFERENCE BETWEEN PRICE AND VALUE IN THE HOUSING MARKET

#### 1. PRICE, VALUE AND OVERPRICED PROPERTY

Greg Hoffman, Research Director

When I joined *The Intelligent Investor* back in May 2001, I was one of two analysts that started on the same day. My colleague has become a good friend over the years but he didn't stay long at *The Intelligent Investor*. He's now forging a successful path as an analyst with **Platinum Asset Management**, but in between times he took up work as a property valuer.

As someone who enjoyed analysing and valuing assets, he was naturally drawn to this line of work, but it didn't live up to his expectations. As he lamented over a drink one evening, he was a property *pricer* not a *valuer*. Rather than sitting down and estimating the real underlying value of a property, he was expected to look around for similar properties that had recently sold, and extrapolate that to the property under examination, bumping it up for being closer to the shops or knocking it down for the want of a car port. In this way he'd come up with a price at which a property might be expected to sell in the near future, but it was manifestly not its true value.

This distinction between price and value is as important in the property market as it is in the stockmarket. Price, as they say, is what you pay, and value is what you get. And if you want to do well at investing over the years, then you need to focus on getting more than you pay for.

Based on an optimistic estimate of the rent you might receive as an owner of residential property, it looks 20–30%

overpriced. Knock the assumptions down to something more conservative and you could mount a convincing argument that people are paying double what they should be.

For some time this gap between price and value has been hidden by low interest rates and a booming economy, but with rates and living expenses now firmly on the up, that gap is now becoming increasingly obvious.

If you've owned your own home for a number of years and have made a decent dent in your mortgage, you might think this has little to do with you. And to some extent you'd be right—overpriced property is naturally more of a concern to people who are currently paying for it—but there are a number of potential knock-on effects that could hurt investors in other areas, notably the sharemarket.

In the first three sections of this report, I'm going to show you how to go about *valuing* a property, and use my old house in Bellevue Hill as a case study. Our Managing Director and resident economist, Steve Johnson, will then take a look at some other property markets around the world to see if there are any lessons we can draw—you'll see, one of the most pertinent is that contrary to what you might hear, property definitely can fall in price. Finally, he'll examine what falling property prices might mean for sharemarket investors.

#### 2. HOW TO VALUE PROPERTY

**All you need to know to value any asset is how much cash it's going to deliver you and when it's going to arrive.**

The value of any asset comes down to what it can do for you, and the value of any financial asset comes down to the cash you expect it to deliver to you in future. With shares, you expect to get cash in the form of dividends or other distributions, with bank accounts and bonds you expect to get interest, and with property you expect either to receive rent (if you let it out) or to save yourself from having to pay it (if you live in it). In a sense, if you live in your own property, then you are your own landlord, and you

can value the property on this basis.

There are a couple of big differences, though, between property and other financial assets. The first is that with shares and bonds, the cash just flows into your bank account and you have no further costs to bear, except for the ubiquitous tax bill. With property, however, you have to pay costs out of your rent, for things like council rates, maintenance and insurance. A property owner might pool these with other nearby properties and pay strata fees instead, but however they're packaged up, they have to be

## 2. How to value property

paid, else you might not have much of a property in years to come.

Property's other main quirk is that it needs to be managed. Someone needs to decide what maintenance needs to be done, someone needs to organise the contractors to do it, someone needs to let them in, and someone needs to pay them. With a rental property, you might engage a property manager to take care of all this, as well as the specific costs of finding tenants, collecting their rent and making sure they don't tear the place down. But all this will mean incurring additional costs—perhaps 7% of the rental income, depending on what you're prepared to do yourself.

By living in your own property, you can cut out the specific costs associated with renting—after all you won't need to find tenants, you won't need a rental agreement to explain when you can pop round for inspections, you're not going to leave the property untenanted and you're not going to run off without paying the rent. You'll also save the costs of organising maintenance, but this will be at the expense of spending the time doing it yourself and that needs to be factored into the equation.

Annual return = current net yield + annual rental growth

Annual rental growth = Annual return—current net yield

Current net yield = annual return—annual rental growth

So to value a property we need to start by deducting all these costs from the rent we expect to receive. Next we need to discount our net rental receipts to get them in terms of today's money. We explained how this works in detail in the *Investor's College* of issue 198/Apr 06, and there's a whole chapter on the subject in our new book, *Value* (available via our website or 'from all good bookstores'). The way the sums work out is that your current net rental yield on a property, plus the long-term average annual rental growth will equal the long-term annual return you can expect to make.

For example, if you buy a house that provides an initial return of 6%, and the net rent grows at 4% per year, your total return works out at 10%. Turning this equation around, if you know you want a return of 10%, then you need to pay a price that equates to an initial yield of 6%.

We've already talked about the rent and the costs, but let's spend a moment thinking about the required return and rental growth, before moving on to the specific example of my former house in Sydney's Bellevue Hill.

### Annual return

You get the annual return out of the value equation if you put the other factors in, including the price. But if you're trying to work out your own value for a property, then you need to decide on a desired rate of return and put that into the equation. The figure you choose should basically be your opportunity cost, or the returns you could get on alternative investments.

We tend to use 10% as a reasonable target rate of return for real assets like property and shares, based on the Australian sharemarket's real return of about 7.5% a year during the 20th century and the Reserve Bank of Australia's inflation target of 2–3%.

There's another reason for using 10% for property at the moment, though, and that is that it happens to be not far from the current level of mortgage rates. So if you're planning to source most of the money for a property from the bank, then the return we're factoring in should be at least enough to cover its cost.

### Rental growth

When the Beagle sailed into Sydney harbour in January 1836, Charles Darwin wrote: 'The number of large houses and other buildings just finished was truly surprising; nevertheless, every one complained of the high rents and the difficulty in procuring a house.'

Some things never change. Rents always feel high if you're paying them, as does mortgage interest, but they're both obviously limited to what people are earning. Over time, though, you'd expect the earning power of property (the rent it can generate—or save you if you live there) to rise roughly in line with the growth in average wages.

Over the very long term it has to be this way—it's not possible for people to pay more than their income in rent. In its 2001 yearbook, the Australian Bureau of Statistics (ABS) published a book full of statistics regarding the previous century of federation.

Figure 1: A century of rent

	1901	2001
Average weekly earnings (2001 dollars)	\$217.50	\$830.00
Average rent on a 3 bedroom home (2001 dollars)	\$65.00	\$250.00
% of income spent on rent	29.9%	30.1%

Source: ABS

The average weekly wage for an adult male grew from '\$4.35 for a working week of almost 50 hours, which after inflation equates to \$217.50', to '\$830.00 for around 37 hours work, in far better conditions.' So salaries averaged annual growth of 1.35% over and above inflation.

When it comes to rent 'the average weekly rent for a three bedroom house in 1901 was \$1.30, equivalent to about \$65.00 today. The actual value today varies depending on location, but the average of 8 capital cities for a three-bedroom house is about \$250 a week.'

At 1.36% per year, the average growth in real rent was almost identical to the growth in salaries. It seems a fair assumption that this relationship will be maintained.

We'll be generous to our property valuation and assume that, in the modern era, wages growth (and therefore rental growth) can average about 2% above inflation. With the RBA targeting inflation of 2–3%, we'd guess at long-term rental growth of 4–5%. Again, we're being as generous as we can with these assumptions, so we'll opt for 5%.

### 3. MY OLD HOME IN SYDNEY'S BELLEVUE HILL

That's the theory, now let's put the maths into practice.

So, having settled on a targeted annual return of 10% pa and estimating future rental growth at 5% pa, we can say that a property is fair value if it provides an initial net rental yield of 5%. The rent now being asked for my old townhouse in Bellevue Hill, is \$850 a week, or \$44,200 a year.

Out of this, however, the owner must meet the property's costs. We estimate these at about \$6,700 (including \$4,000 strata fees, \$2,000 for repairs and maintenance and \$700 for water fees). Again, we think we've been pretty conservative. The figure for strata fees could easily be higher. And, if you already own a property, you probably know of dozen different 'one-off' expenses we haven't thought of. Anyway, we're left with net rent of \$37,500, and for that to provide a yield of 5%, we'd reach a value of \$750,000 (the rent of \$37,500 divided by 0.05).

If you were going to use the property as an investment, then you should also factor in the costs of managing the property (or your own time costs). A typical real estate agent's management fee would be 7% of gross rent, amounting to about \$3,000 a year and taking your net rent down to \$34,500. On top of this, you'd have to reckon on an average of maybe about a week a year (being optimistic), where you're between tenants and the property is empty. This would bring the annual rent down to \$33,650 and your valuation down to \$673,000.

Figure 2: Birriga Road, Bellevue Hill

	EXCLUDING MGMT COSTS	INCLUDING MGMT COSTS
Annual rent	\$44,200 pa	\$44,200 pa
Estimated costs	\$6,700 pa	\$10,550 pa
Net cash flow	\$37,500 pa	\$33,650 pa
Targeted annual return	10%	10%
Growth rate	5%	5%
Required initial yield	5%	5%
Value	\$750,000	\$673,000

One benefit of investing in property, of course, is that if you make a loss after paying the interest on the mortgage, you get to set it against your pre-tax income. Much is said about the benefits of this 'negative gearing' in reducing your tax bill, but it's important to remember that you're paying less tax because you're losing money. The strategy works best in times of high inflation, where the losses you make on an annual basis are offset by inflation in the property's value, which isn't taxed until the property is sold. If the property value doesn't go up, negative gearing is simply money down the drain.

There are other financial benefits, though: you can avoid management costs if you live in the property; if and when you've paid off your mortgage you'll be saving yourself a cost—either rent or interest—that you'd otherwise have to meet out of your post-tax income; and there's a benefit from not having to pay capital gains tax on your home (although your mortgage payments are, unfortunately, not deductible).

There are also the 'soft benefits' to owning your own home—you can bang a nail into the wall whenever you feel

like it and you can't be kicked out at a month's notice.

How much all that's worth will vary according to taste—young singles probably won't value the 'soft benefits' as highly as a couple with a young family. And these soft benefits of owning your own home are perfectly legitimate reasons to buy a house. But don't confuse them with financial benefits.

So we've got a value that might range from about \$673,000 to \$750,000, depending on the circumstances. How much would you pay? Well, earlier this year, someone paid \$1.175m for the almost identical townhouse next door (the original asking price was \$1.4m). I have no idea whether the purchaser is now living in the property or renting it out but, however I look at it, I just can't make the sums stack up to justify that price.

Turning things around, that price would give a net rental yield of 3.2%, which with growth of 5% would mean an annual return of just 8.2%, significantly less than current mortgage rates. If you include management costs, the yield falls to 2.9%, and growth of 5% would mean a return of 7.9%.

Of course, my old home is just one example. There are stories circulating of properties in western Sydney selling for yields of 8% or more, but usually they're yet to be rented at the amounts suggested, and they're in areas that might be more prone to being left without tenants.

In fact, while Bellevue Hill mightn't be your run-of-the-mill suburb, that rental yield is nothing out of the ordinary. Statistics from the Real Estate Institute of Australia show more than 20 years of declining rental yields. As you can see in Figure 3 over the page, after costs you'd be lucky to get a 3% rental return on current prices. The buyer in

[ CONTINUED ON PAGE 3 ]

#### The only way to save?

How much might Greg save if he resists his better half's urges to 'get a foot on the property ladder'?

Well, repaying a 25-year \$1.175m mortgage would cost him \$123,192 a year—assuming a 9.5% mortgage rate (any deposit you put down has an 'opportunity cost', consider it borrowing from your savings). To that you need to add his annual expenses of \$6,700 (and we'll assume these grow at 5% a year). So, his first year of owning would cost him around \$130,000.

If instead of paying the mortgage Greg chose to rent for the next 25 years, how much would he end up with? Well, after paying rent of \$44,200 in the first year, he'd have a surplus of about \$86,000 to invest compared to if he'd bought. And he'd have a little bit less to add to his savings each year after that (because the rent is growing at 5% a year but the mortgage repayments aren't—the rent would finally overtake the costs of owning in the last year of the mortgage).

If Greg could compound his investments at 10% a year he'd end up with about \$6.6m after 25 years, and if he could make 15% a year he'd have almost \$16m and a nice big tax bill. Enough for a house? Perhaps.

### 3. My old home in Sydney's Bellevue Hill

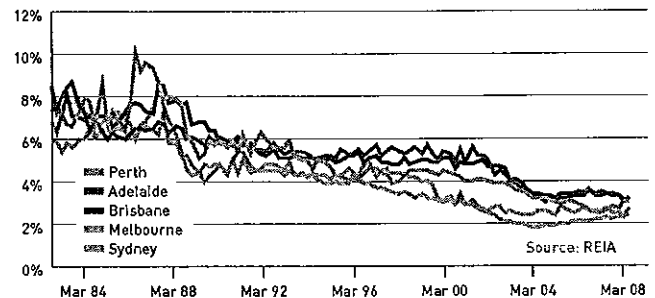
our example might, in fact, have done relatively well. What's extraordinary is the extent of the overvaluation. We've been generous in our assumptions and still come up with a value that is nowhere near the current price. Throw in a couple of hundred thousand dollars' worth of soft benefits and it still looks 20% overpriced.

Now consider this: if property prices halved, average net rental yields around the country would be between 5% and 6%. While that would do significant damage to the economy and the national psyche, it still wouldn't represent the financial opportunity of a lifetime. Add the 5% expected growth and you'd be looking at a return around the 10% or 11% mark. More palatable, for sure, but hardly a bargain.

We should stress that we're not actually suggesting that falls like this are going to happen. But falls are certainly possible, and we'd recommend keeping this possibility in

mind, not only for any properties you have, but also for your stockmarket investments.

Figure 3: Rental yields tumble



Greg Hoffman is The Intelligent Investor's research director

### 4. A GLOBAL PHENOMENON

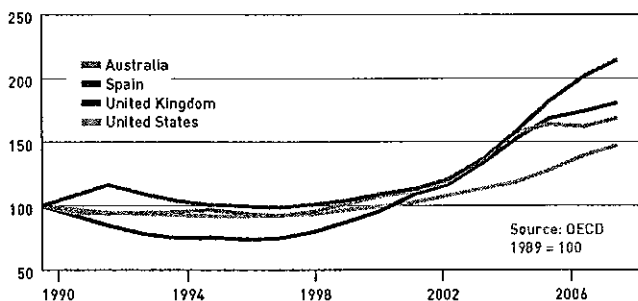
Steve Johnson, Managing Director

**We're not on our own when it comes to overpriced property. It's been a global property boom.**

The world's financial markets are fixated on the US housing market. Global banking losses from the 'sub-prime' crisis, come credit crisis, come housing crash total \$380bn so far. One of the world's oldest brokers, Bear Stearns, had to be bailed out by the Federal Reserve. Residential house prices, according to the oft-used Case-Schiller index, have fallen 17% so far—the largest fall ever.

The blame game is in full swing. Alan Greenspan's faith in financial markets' ability to get pricing right has come in for plenty of criticism, as have fat-cat bankers and mortgage brokers peddling low-doc, no-doc and—our favourite—'NINJA' (No Income, No Job and no Assets) loans to customers that couldn't possibly afford to repay them.

Figure 4: Real property prices



While an extremely active securitisation market in Australia enabled the likes of RAMS and Wizard to build huge mortgage books without any capital, the financial alchemy that turned piles of risky loans into apparently indestructible AAA-rated securities in the US doesn't seem to have taken place here. You could argue, therefore, that we're not going to have the same problems.

The striking thing about the US, though, is that, at its peak, the property market wasn't as overpriced as ours is now.

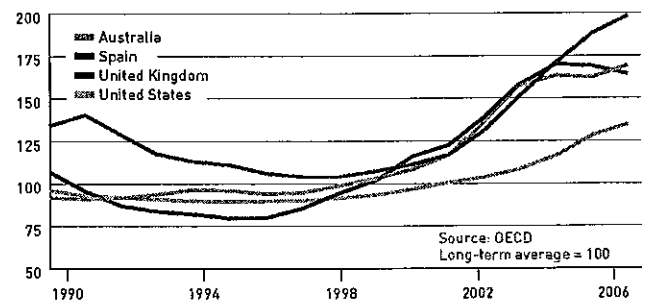
The decade-long boom in Australia, the UK and Spain has pushed prices to levels more than 65% in excess of their real

long-term averages (see Figure 4). In the US, that number was 'only' 47%.

While a useful illustration, that argument is still related to past prices, not to the cash you expect the investment to deliver. Alternatively, we can compare price-to-rent ratios which, like price-to-earnings ratios, measure the amount you have to invest to get \$1 of current-year rent (or earnings).

Again, the differences are stark. The US market, using this measure, was the least overpriced of the four boom markets in Figure 5.

Figure 5: Price-to-rent ratio



There are some important differences between the Australian market and America's. Thanks to comparatively restrictive planning laws and a mining-induced immigration boom, Australia has a chronic housing shortage. In the US, if you want to build, you build. So the housing boom fuelled the construction of millions of speculative new homes—there are enough unsold homes to meet demand for the next 11 months. Excess supply is forcing a rapid readjustment in market prices in the US whereas the process could be more protracted here.

The other key difference is that you can lock in a 10-year mortgage in the US and pay about 6.5% a year in interest. Here, the interest on a 10-year mortgage loan is in excess of 9%. Other things being equal, rental yields should be lower in the US because long-term interest rates are lower. Instead, they are higher.

While there are important differences, the similarities

between Australia's property boom and the same phenomenon in other developed countries suggests there's more to high prices than the great Australian dream. Thanks to low interest rates around the world, a

corresponding liquidity boom and financial 'innovation', credit has been made available to millions of people previously not deemed worthy of the privilege. That caused property prices around the world to boom. Its reversal may well cause them to bust.

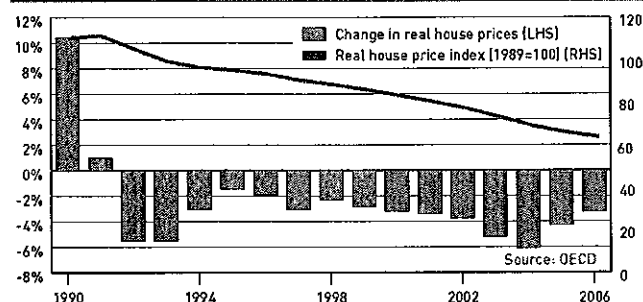
## 5. OH YES THEY CAN

**One of the most absurd arguments in favour of residential property is that prices can't fall. It's time to put that fallacy to the knife.**

The current US property market meltdown should dispel this myth immediately. But, in case you're not convinced, we've gathered compelling evidence from around the world to show you that property prices can, and do, fall.

One of Greg's favourite holiday destinations is Japan. He first visited the land of the rising sun on a school trip and has returned three times since. He came back from his latest trip pondering something Australians find inconceivable. Japanese mortgage loans were being offered through NAB Hong Kong at an interest rate of 1.5% a year. You can buy a property with one of these loans and rent it out on a yield of 4% or 5% a year (the residential portion of the **Babcock & Brown Japan** property trust yields 5% on the purchase price), sit back and collect the difference.

**Figure 6: Japanese residential property**



Why, he put to the analytical team, are Japanese investors not buying property with their ears pinned back? The reason can be seen in Figure 6. Property prices have fallen, uninterrupted, for 15 straight years.

The reason people don't buy is the exact opposite of the reason people justify incredibly low yields here: what use is a high rental yield if the value of your capital depreciates every year?

Again, there are substantial differences between Japan and Australia—it's bad form to live in someone else's house and people don't move often. If they do, they'll often knock down the previous owners' perfectly good dwelling and build a new one.

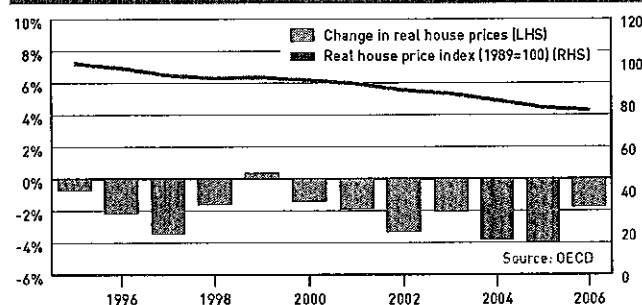
But put yourself back in boom-time Japan and consider some of the arguments that were used to justify absurdly high prices. The economy was motoring, absolutely everyone had a job and interest rates were low. Not only that, but Japan has 128 million people to squeeze into a land area half the size of New South Wales. How could property prices possibly fall?

Well, fall they have—the latest OECD data shows real Japanese property prices 40% lower than their 1992 peak.

Europe provides further examples. OECD data shows German property prices falling in 11 of the past 12 recorded years (they managed to eke out a 0.4% return in 1999—cause

for celebration). Again, it's a country where mortgage rates are now lower than rental yields, but past experience is scaring investors off.

**Figure 7: German residential property**



Switzerland has also been having problems. The Swiss endured 11 straight years of falling property prices through the 1990s and into the current decade. There has been some relief in recent years, but those who bought in 1990 are still a long way under water.

### Beware the most dangerous thought in investing

None of this means property prices have to fall in Australia. They have looked expensive for a number of years now but, despite rising interest rates, we're yet to see a market-wide correction. But to believe that prices 'can't' fall is exactly the thinking that allowed the banking gurus to turn NINJA loans into supposedly indestructible mortgage-backed securities in the US. They've learned the hard way a lesson the Japanese learned long ago. Property prices can, and do, fall.

### Real vs. nominal returns

The numbers used throughout this section of the report are all 'real' returns. That is, they are adjusted for the effects of inflation. Many of those that accept property is overvalued based on any conceivable forecast of the cash you are going to receive, still fall back on the argument that 'property prices might go sideways for 10 years, but they won't fall'. But, even if it does play out that way, it will be a very serious erosion of your wealth.

To start with, inflation is eating away at your capital—if your \$1m house is only worth \$1m in 10 years' time, it will buy fewer loaves of bread and litres of petrol (if inflation averages 3%, everything will be 34% more expensive 10 years from now). Secondly, if you buy a place on a 3% net rental yield, you *need* it to double over the next decade just to generate a 10% return.