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## HOUSING BOOM DECELERATES?

September 5, 2004

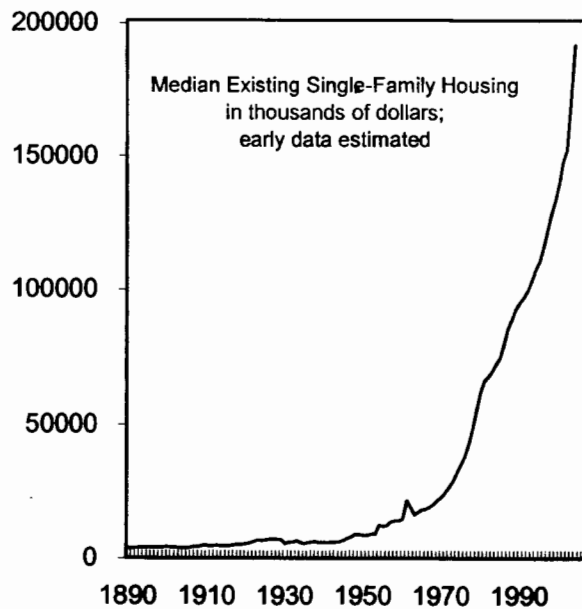
**Summary and conclusion:** *These pages have been long term bullish on Commodities and on Single-Family homes since the Spring of 1999. We are still long term bullish, but these respective advances may now need to take a breather. For example, the August 16<sup>th</sup> Cycle Date may mark a temporary high for Crude Oil—but not necessarily Oil Stocks. Also, while home prices are not, by our lights, in a “bubble,” they are approaching levels that can no longer properly be called cheap. Therefore, the bull market is likely to slow its advance.*

Last Tuesday the National Association of Realtors reported that the median-priced, existing, single-family home in July sold for \$191,300, a new all-time high. This leaves home prices some 42% higher than they were in March of 2000, and the report has elicited new jeremiads about our alleged “housing bubble.” By way of comparison, the NASDAQ is some 64% lower than it was in March 2000, having undergone a parabolic rise leading up to that time, and then having collapsed subsequent thereto. Besides the parabolic rise and collapse in the NASDAQ, we also have seen an essentially identical parabolic rise and collapse in the NIKKEI a decade earlier. We also have witnessed very similar rises and collapses in Silver and Gold the decade before that. On the basis of all these experiences, the current upsurge in home prices is understandably worrisome, and many have concluded that home prices are now in a similar parabolic “bubble,” which implicitly will end badly, just as all these previous bubbles did. These pages have never shared that outlook, because we believe that the operative dynamics of housing prices differ significantly from those driving the observed “bubble markets.”

In order to avoid any possible confusion, we must re-emphasize here that our bullish housing comments of the last several years have always been couched in terms of *median-priced, existing, single-family homes*. Everyone, ourselves included, has anecdotes about overpriced excesses in the housing market—e.g., eight-figure spec homes in Greenwich, and million-dollar starter homes in Palo Alto. However, such high end homes are not directly relevant to our analysis. We are rather talking specifically about the “median-priced” home, which by definition means that there are precisely as many homes priced *below* the subject property as there are priced *above* it. In fact, while there are obvious excesses at the high end of the housing market, there are less obvious, but in our view much more dangerous, excesses at the low end of the market. People currently are being hustled into homes with no savings, and with no experience meeting the sorts of responsibilities that home ownership necessarily entails. But we are not speaking to this particular segment of the market either. We are speaking to the “median” home, the very peak of the bell curve, not the right tail and not the left tail. Furthermore, we are

addressing “existing” houses. The reason for this choice is that while we may build 1-1½+ million *new* homes every year, there are probably 80+ million *existing* homes. So *existing* homes is a much larger and much more stable cohort on which to perform one’s analysis than the alternative available series. Also, we are speaking to actual, single-family homes that people actually buy and live in—not multi-family or rental properties, and not some hypothetical construct such as an imaginary home with some theoretic “*Imputed Rental Value.*” Finally, our discussion of home *prices* has no necessary implications for Home Building *stocks*. There is a tendency to conflate the outlook for a given commodity with the outlook for the producers of that commodity. Sometimes, with Silver and Gold for example, such an conflation is proper and heuristic. In other cases, with Crude Oil for example, the connection between the commodity and the producers thereof is a highly variable one. The correlation between home *prices* and home *builders* is the most tenuous of all, varying from direct to inverse to non-existent.

One analytic problem we must acknowledge is that good data for existing single-family homes is not available prior to 1968. So to do long term analysis it was necessary to get various different series, interpolate these data so as to make them relatively consistent, and then splice the results together to get a long term series. So our data are not perfect. But it is worth noting that in the 37-calendar years of good data we *do* have, there has never been a single



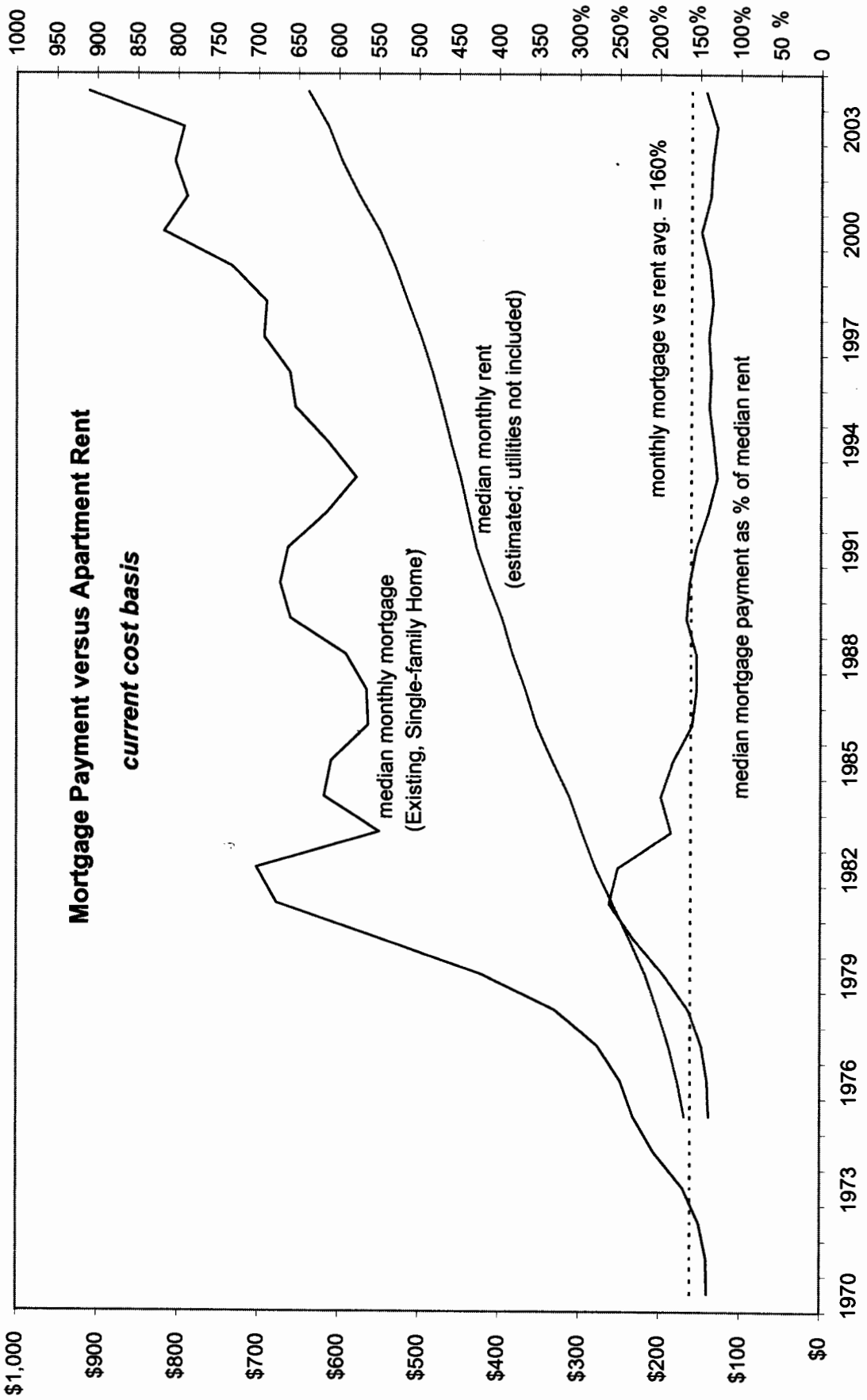
annual decline in the price of the median, existing, single-family home. So those predicting an imminent price collapse in home prices are to be commended on their fortitude. According to our quasi synthetic long term data series, there *have* in the past been price declines in the average single-family home. For example, from the peak of the Roaring '20s real estate boom in 1926, to the Depression low in 1935, there was a 20%+ decline in the price of the average new home. We do not have the data for *existing* home prices during this time, but there surely were price declines of some sort here as well. Subsequent to the middle 1930's, however, it is difficult to find evidence of *any* year-over-year decline in the median-priced, existing, single-family home.

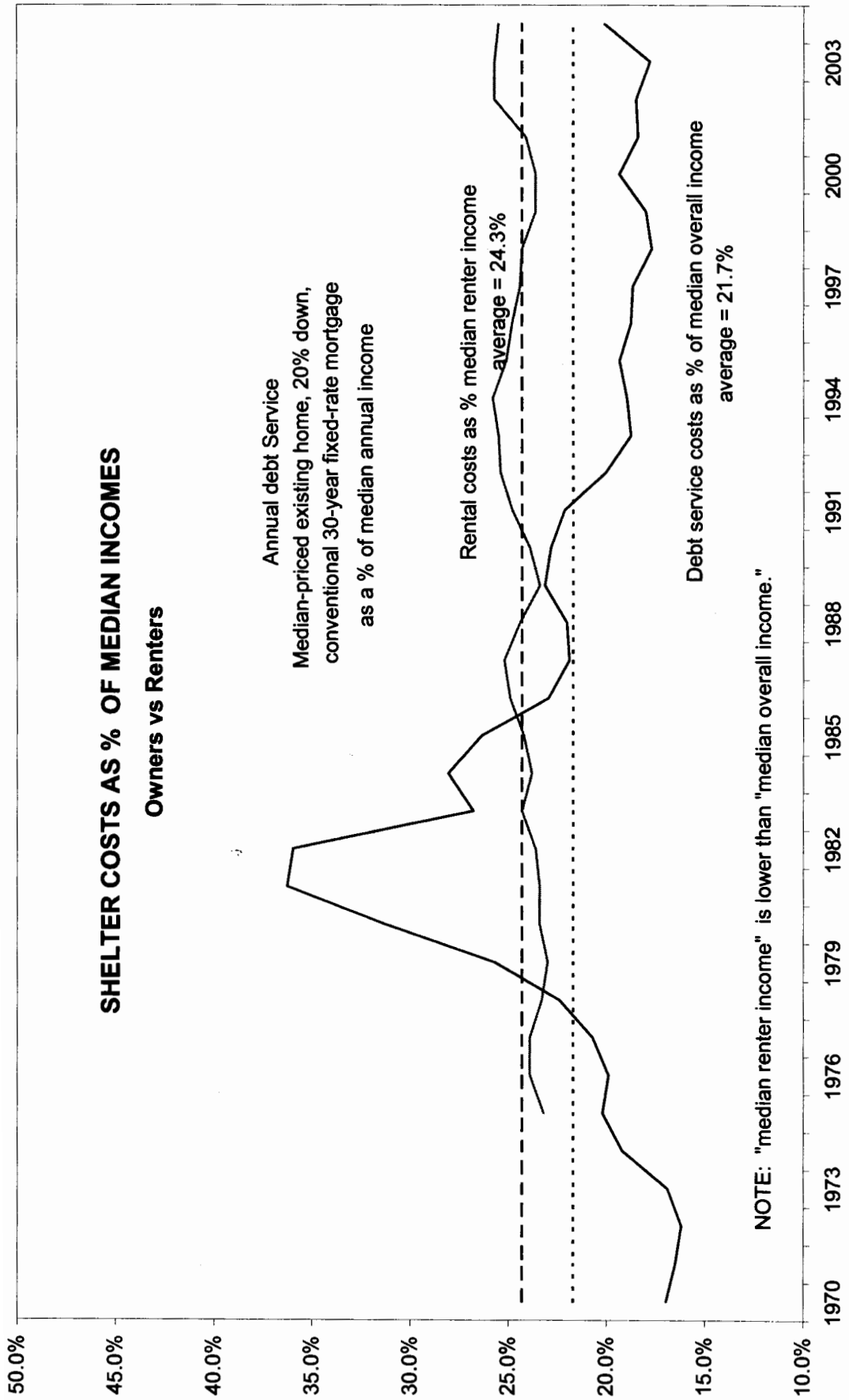
So despite admitted problems with the data, it is safe to say that there have never been any parabolic rises and collapses in average home prices such as there have been in stock prices and in commodity prices. This may seem strange inasmuch as a single-family home is in one sense “a basket

of commodities"--i.e. it consists of tin, lead and zinc, copper, glass and aluminum, lumber, plywood and concrete, land, labor and capital, etc. And houses, like commodities, are "leveraged." However, there is a major difference between homes and other commodities, which is that homes are both utilized, and paid for, not on a spot market, but on a monthly basis over a long period of time--usually measured in decades. One consequence of this unique payment schedule is that there are relatively few "short sales" of homes, and relatively few "margin calls" on home-owners. In the commodity market, 50% of the positions are short sales, and parabolic rises are in part a consequence of forced buying to answer margin calls. Then when prices inevitably reverse, forced liquidation takes over, often precipitating a price collapse. The dynamics of home prices, however, are very different from this. For one thing, so long as one meets the contracted monthly payment on his house, there is no forced buying or selling, irrespective of how the prevailing market price of homes might fluctuate. Also, the purchase of a home is by far the largest purchase families ever make. As such, there are natural limits to home price movements which do not obtain with purchases that constitute a very minor portion of household balance sheets--such as Silver or Cocoa or the QQQs. Hence housing prices tend not to get caught in the same sort of self-reinforcing, positive feed-back loop that periodically ensnares stocks and commodities, first kiting them skyward, then plummeting them Icarus-like back to earth.

But a case can be made on the other side. The major argument in the

bubble hypothesis is that houses are purchased out of income, and today the average home price is at a historically high multiple of the average family income. Consequently, housing prices are certain to stall here until national incomes can catch up. Or more likely, housing prices will decline sufficiently to bring the ratio of home price to income back to normalcy. But we have a problem with this argument, which is the fact that one simply does not buy a home by paying the nominal price of that house out of one's annual income. One rather buys a house by paying a much lesser amount in debt service each month for a very long period of time. And how much money this monthly payment constitutes is a *tripartite* determination. The payment *does* depend in part on the nominal price of the house. But it also depends heavily on the prevailing rate of interest at the time of purchase. For example, last month the median-priced existing, single-family home rose \$300, from \$191,000 to \$191,300. But during the same month, mortgage rates dropped 8 basis points--from 6.01% to 5.93%. This drop in interest rates more than offset the rise in home prices, lowering the monthly payment from \$917 to \$911. And then there is the third part of this tripartite calculation, which is average household income. More specifically, the median family annual income rose \$122 last month from \$55,006 to \$55,128, meaning that there was *more* money available to service a *smaller* debt burden. The health of the housing market is most dependant on "*monthly housing costs as a percent of income.*" And due to the combination of these three factors, the average home actually became more affordable last month--despite record high sticker





prices. One may properly argue that in the future mortgage rates will go up, or that incomes will go down, or that the work force will contract. But based on current conditions, housing is not in jeopardy, as will be explained below.

The other main argument of the house bubble hypothesis is that at current price levels, the average single-family home can not be bought and rented for enough income to service the debt. Hence housing is clearly over-priced on an "investment" basis. By our lights, this latter argument has a number of flaws. Firstly, assuming that housing actually is "an investment," its merit should be measured on a "total return" rather than on a "current income basis." And historically, the total return on houses has not depended solely on the "income" or "imputed rent," but also on equity build-up through mortgage curtail, and market price appreciation realized upon sale. Without considering what the future sale price will be, it is not possible to properly calculate what the "total return" on a housing "investment" might be. There is one school of thought that holds that the country is on the verge of a debt induced deflation, in which case the "gain on sale" from a housing investment is likely to be negative. There is another school of thought that holds that housing prices are to a large extent a reciprocal function of the real value of our unit of account--viz. the dollar. They contend that home prices have been going up for ever, especially since 1913 when the Federal Reserve Board was created, and even more especially since 1933 when Roosevelt and Congress abrogated the Gold Clause. And since history teaches that all currencies deteriorate over time,

home prices will necessarily *appreciate* over time. We are agnostic on the inflation/deflation argument but we do note the entire Louisiana Purchase, 512 million acres, cost \$15 million, the same amount as just one of those "eight figure homes in Greenwich" mentioned earlier. So currency depreciation has been a force to reckon with.

However, in our view an even more serious flaw in the "investment" approach, or the "*imputed rental income*" approach, to housing prices is that houses are *not* bought primarily as "an investment." Homes are bought primarily as "a service"--viz., as shelter, as a place to live. This being the case, the primary comparable for housing is not what alternative *investments* might return, but what alternative *shelter* might cost--a rental apartment for example. Historically, the monthly costs of owning a home have always been greater than the costs of renting, but a key to whether houses are in a bubble or not would seem to be just *how much* more home ownership costs than renting at present.

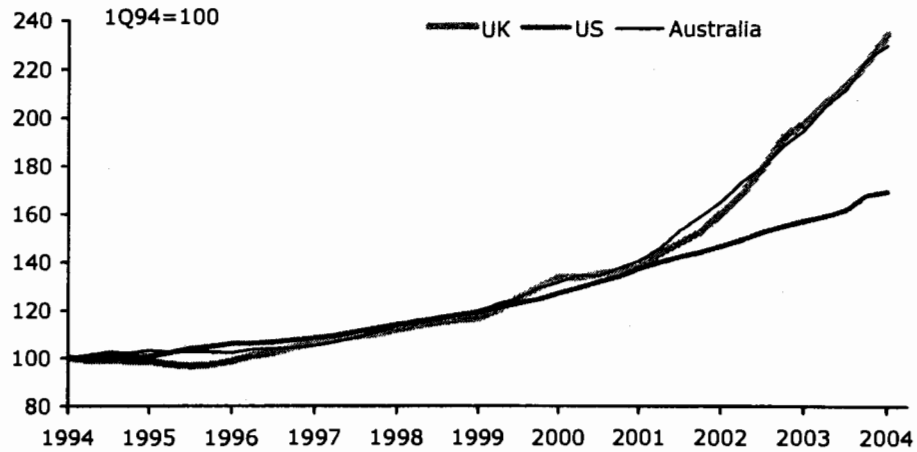
In order to better depict what we consider the most relevant metrics, and ideally to get an idea as to where the current housing boom might hit the wall, we have created the following original charts. The first chart, entitled "Mortgage Payment versus Apartment Rent," shows the monthly cost of the median-priced, existing, single-family home--at current mortgage rates--compared to the median apartment rent. One thing that is immediately obvious is that monthly housing expenses--on a current cost basis--have been highly variable, whereas rental costs have been extremely

stable. They have varied almost imperceptibly around an inexorably rising trendline. (This dynamic may suggest that multi-family housing is a buy-and-hold investment, whereas home builders are trading vehicles). For present purposes what is important is the fact that median monthly ownership costs are currently 151% of median monthly rental costs. This ratio is below the 30-year average ratio of 160%, so homes today are not inordinately expensive compared to renting, and therefore the bull market in housing should not be at risk. However, this ratio now *is* the highest it has been since the early 1990's, and therefore it may be sufficiently high to at least slow the recent exodus out of rental apartments and into home ownership.

The second chart shows both median home ownership costs and median rental costs as a percent of median income. Note again how stable rental costs are. For three decades, rental costs as a percent of income have barely deviated 1% from their long term average of 24.3%. Home ownership costs, in sharp contrast, have been all over the lot--from as low as 16% of income and to as high as 38% of income. Currently median home ownership costs are about 19.9% of median income. This is below the multi-decade average of 21.7%, and it also suggests that, despite anecdotal evidence to the contrary, home ownership costs have not yet reached onerous levels, and the long term bull market in housing is not yet at an end. However, costs as a percent of income *are* currently at a 12-year high. So housing prices very well could become a bit sticky here.

Obviously it is difficult to tell how high is "too high" with respect to home prices, but we would suggest two objective, quantifiable metrics. One observation is that historically renters have consistently paid about 24¼% of their income for the cost of shelter. So perhaps somewhere in that general area of 23%-25% is the natural limit of what *homeowners* also will consistently pay for shelter costs. Also, notice on the previous chart what was happening when the last housing boom went bust, in the early 1980s. Things apparently were going swimmingly until monthly debt service began to exceed 25%-28% of income in 1979/1980--on its way to a peak of 38%. At that same time, median ownership costs exploded to the point that they were more than 250% median rent costs. Given that environment, housing starts collapsed and the homebuilding industry, and many of the ancillary businesses, totally imploded. Many either went bankrupt or sold for pennies on the dollar (*Interestingly, the average home price continued to rise, even as the industry went into a depression*). As noted above, today housing costs as a percent of income, and housing costs as a percent of alternative shelter, are the highest they have been in a dozen years--which may cause some temporary indigestion. However, both ratios are still *below* their long term averages--and are well below levels that led to the 1980 debacle. By our lights, this suggests the long term bull market is still viable. But if, housing costs as a percent of income approach the 24% area, and/or if housing costs as a percent of rental costs reach the 160%-165% area, severe dislocations are likely to occur among the homebuilding and associated areas.

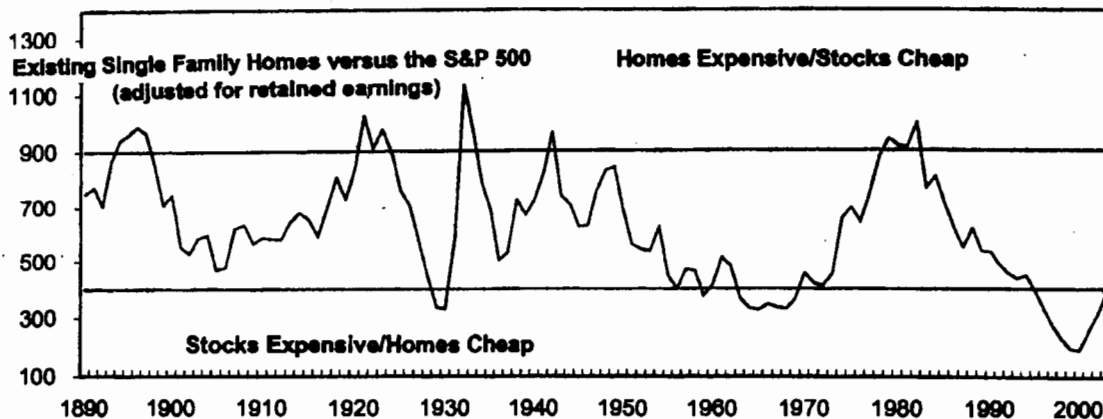
House price indices for US, UK and Australia



Addendum:

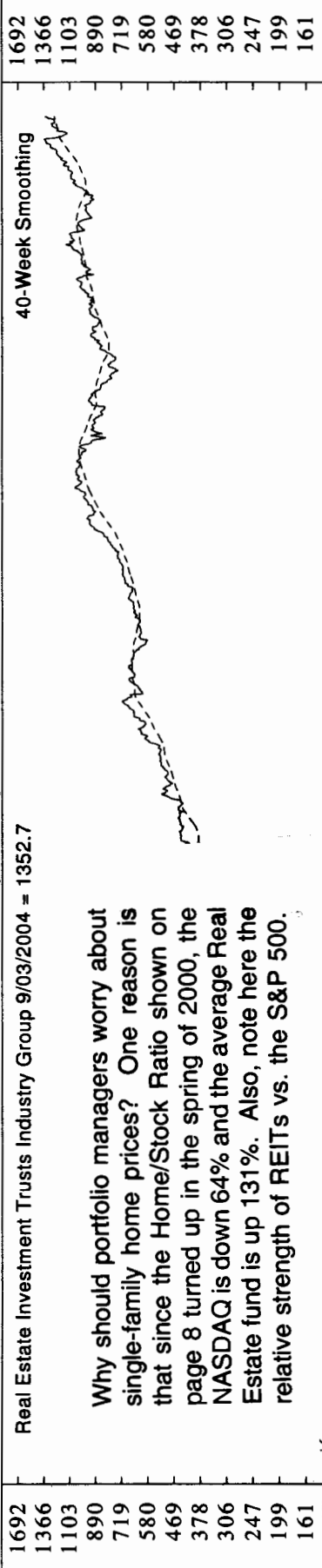
There are a lot of "Technical" data which suggests the housing boom is slowing. Transaction volume is slowing, and in many venues volume declines lead to price declines. Also there are "divergences" within the US market, with prices reported sticky in high end markets, and foreclosures picking up in low end markets. There are also reports of price declines in Australian and British home prices. The Central Banks of these two countries have been the most hawkish in raising interest rates, but whatever the "fundamental" cause, falling overseas home prices is a "technical" negative. However, as the above chart shows, housing prices in the UK and Australia have far outrun US housing prices over the last several years. Furthermore, household debt as a percent of disposable income in those two countries is fully one-third higher than in this country. Lacking the necessary data we can not be sure, but it may be the case that the monthly cost-to-income ratios in these two markets have already crossed the threshold of what we hypothesize constitute the danger zone--viz., 24%. (Chart from christopher.wood@cisa.com)

Another "technical" problem that worries some is that housing price "*momentum*" seems to be blowing off to the upside. The current one-year rate of change on some indexes is the highest since 1980, the point at which the housing industry last collapsed. However, we believe there is a 17-year cycle in the relative strength of housing prices versus stock prices. In 1980 housing prices were finishing a 16+ year bull market in the relative strength versus the stock market. In 2004, by contrast, housing prices were ending a 18-year bear market in relative strength versus the stock market. The significance of *momentum* depends on its context, and as a cycle theorist, our judgement is that the context for housing is still long term bullish, which renders the sharp price gains seen recently a *temporary* problem.



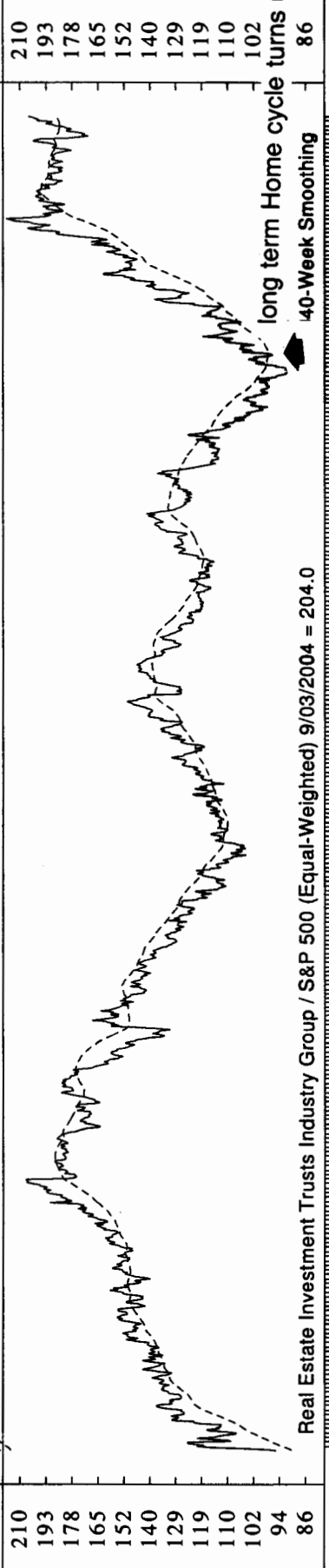
Weekly Data 1/04/1980 - 9/03/2004 (Log Scale)

### NDR Real Estate Investment Trusts Industry Group Mean Reversion

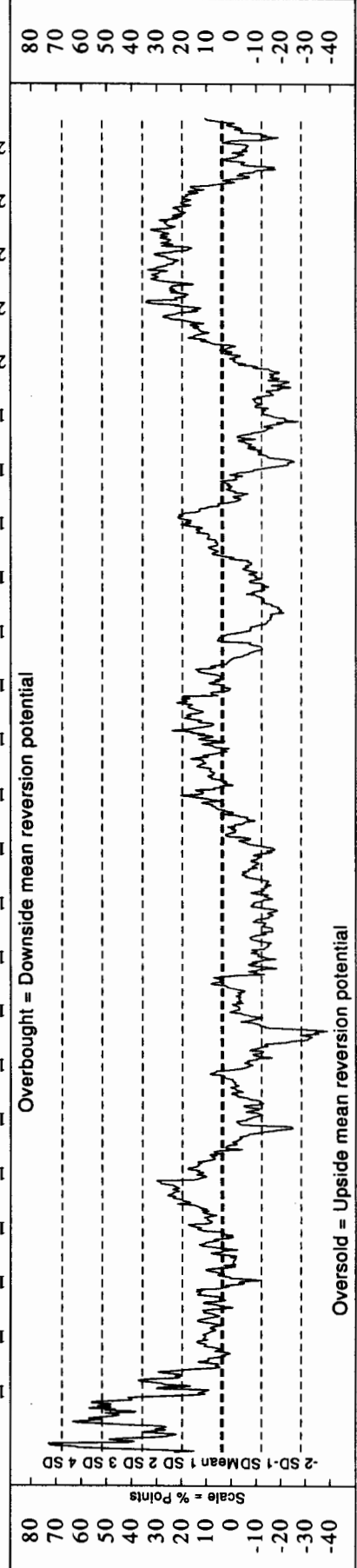


Real Estate Investment Trusts Industry Group 9/03/2004 = 1352.7

Why should portfolio managers worry about single-family home prices? One reason is that since the Home/Stock Ratio shown on page 8 turned up in the spring of 2000, the NASDAQ is down 64% and the average Real Estate fund is up 131%. Also, note here the relative strength of REITs vs. the S&P 500.

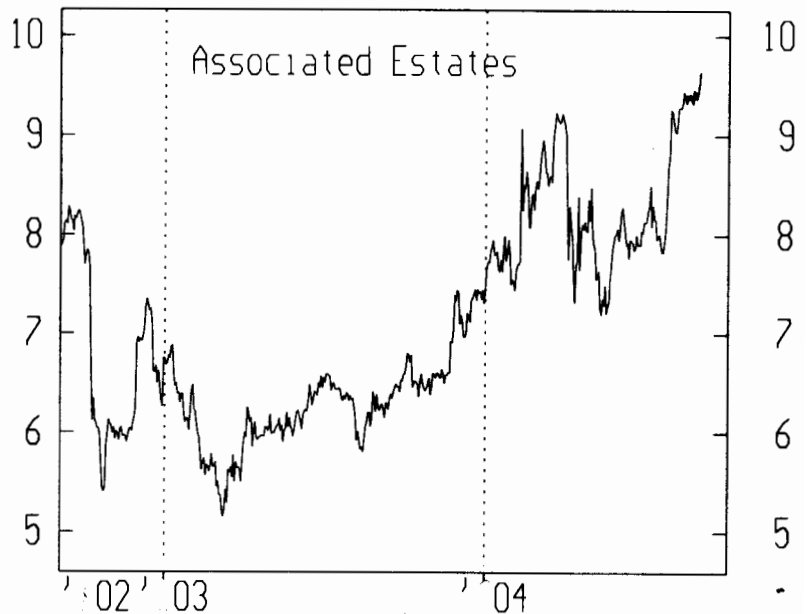
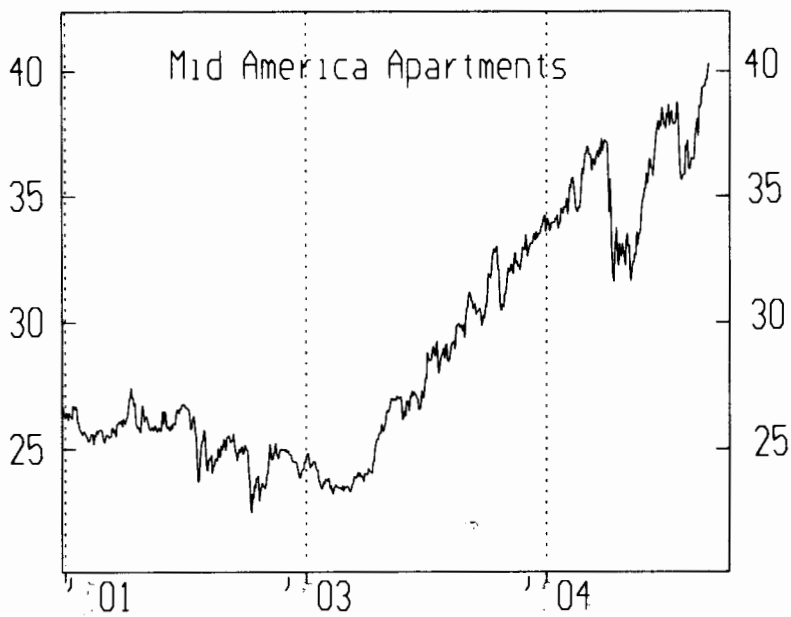
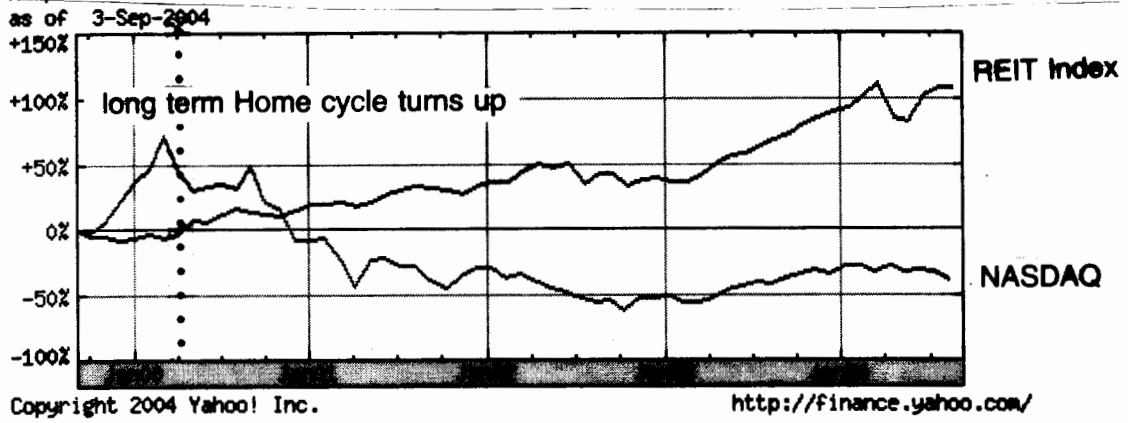


Real Estate Investment Trusts Industry Group / S&P 500 (Equal-Weighted) 9/03/2004 = 204.0



### NDR Real Estate Investment Trusts Industry Group (Y/Y) minus S&P 500 Equal-Weighted (Y/Y)

GIR44



A year or so ago these pages suggested that as an alternative to *shorting* Home Builders, investors who felt home prices were too high, should consider *buying* Apartments (These charts are illustrative only, and are not necessarily purchase recommendations).