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Development Implications of Long Term Social Trends

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Most property decision making is based on the assumption that the property market fluctuates on about an eight to ten year basis about a relatively stable underlying long term trend. This has inclined research to focus on investigations using data usually less than three periods long in forecasting future directions.

The longer terms data, say over the last century, suggests that the last thirty five years represents a marked change from the longer term trends in economic behaviour. Analysis of this period suggests that the causal factors are largely exogenous to the economy and appear to be in the process of another change similar to that experienced in the decade loosely centred about the year 1970.

The implications for development and investment are explored within this wider view of the likely long term direction of property. It is argued that the current interest in housing affordability should be viewed as reflecting a structural rather that cyclic change. The viability of the development industry within a stable-state yield dominated property market is considered. It is concluded that despite property ownership moving to an investment profile last seen in the 1960s, it has the capacity to remain a viable, and perhaps more desirable investment vehicle, despite an initial adjustment phase.

Keywords:
Property market forecasting, long term demographic and economic trends, property development, social change, housing affordability

Introduction

Peter Saunders (2005) noted that the pattern of house price change in Sydney over the past two decades differed from what was normally economically sustainable. He noted that while house prices typically exceeded inflation, they were usually linked to wages. In this way, while older house owners took capital gains in excess of inflation, they did not burden the following generation with a greater housing cost compared with incomes. The behaviour of the past two decades raises issues of intergenerational equity and sustainability as well as implications for dwelling construction into the future. Two questions are raised from this trend, how was it caused and what implications will it have for the future. This paper will explore the first question primarily using Australian Bureau of Statistics (ABS) data in order to shed light on the second.

Capital gain in land is usually taken for granted as one of the peculiarities of property however it must have a cause. Saunders quoted conventional economic theory when he blamed the inelasticity of supply but this is superficial and essentially only descriptive. Adam Smith (1778) had earlier concluded that land behaves as a monopoly, though his insight in this regard tends to be ignored in recent times. Certainly there have been a number of authors who agree with Smith that it is the land and not the developed property that enjoys the capital gain and have shown this empirically (Ball and Wood 1995; Hendershott 1995). The Australian Bureau of Statistics (ABS 2006) recognised this in data on house prices noting that since project homes did not contain a land component, the rise in established house prices was associated with the land component. See figure 1, below.

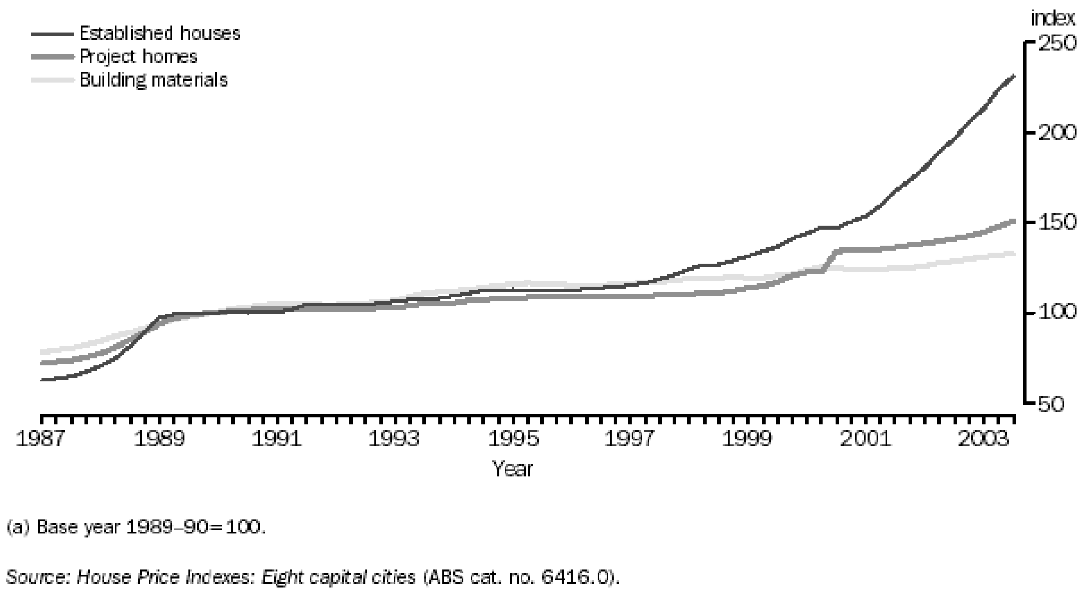

Figure 1: House Prices, CPI and Average Earnings from ABS Year Book Australia 2006 cat.1301.0

The housing market operates freely, hence the trajectory of prices is in part the willing choice of purchasers as well as vendors. The criticism that prices make housing unaffordable is necessarily unfounded, since it is based on actual transactions, situation where purchasers have considered the price affordable and acceptable, given their needs and expectations of the future. While this appears to exonerate the market from appearing to be some sort of villain that sets prices above the capacity of needy purchasers, it does disguise some practical realities. People need dwellings to live in and if their lives are focused on a city, then their housing choices are not totally free. Also, the market it not homogenous. For some, purchase is a way of eliminating dependence on renting, for others it is merely a move, and for some it is a financial investment. The dynamics and interaction of these three sub-groups complicates simple conclusion regarding market behaviour.

Saunders' observation still suggests an overall anomaly. If housing costs are rising faster than incomes, then housing will necessarily become less affordable. Abelson, Joyeux et al. (2004) also attempted to investigate the causes of this change using standard statistical techniques on similar data. While they found that *"Between 1970 and 2003, Australian real house prices rose by over 3 per cent per annum"* and that in the longer term house prices correlated to *"real disposable income, the consumer price index, unemployment, real mortgage rates, equity prices, and the supply of housing"* they failed to identify the significance of the magnitudes of the correlations. In large measure this demonstrates the methodological shortcomings of their approach. Published quantitative analysis too often is content to use regression to confirm relationships *"consistent with economic theory"* (Abelson, Joyeux et al. 2004), but incapable of identifying genuinely interesting aberrations that could suggest important causal relationships that warrant attention for policy. The importance of Saunders' concern is illustrated in Figure 2 below:

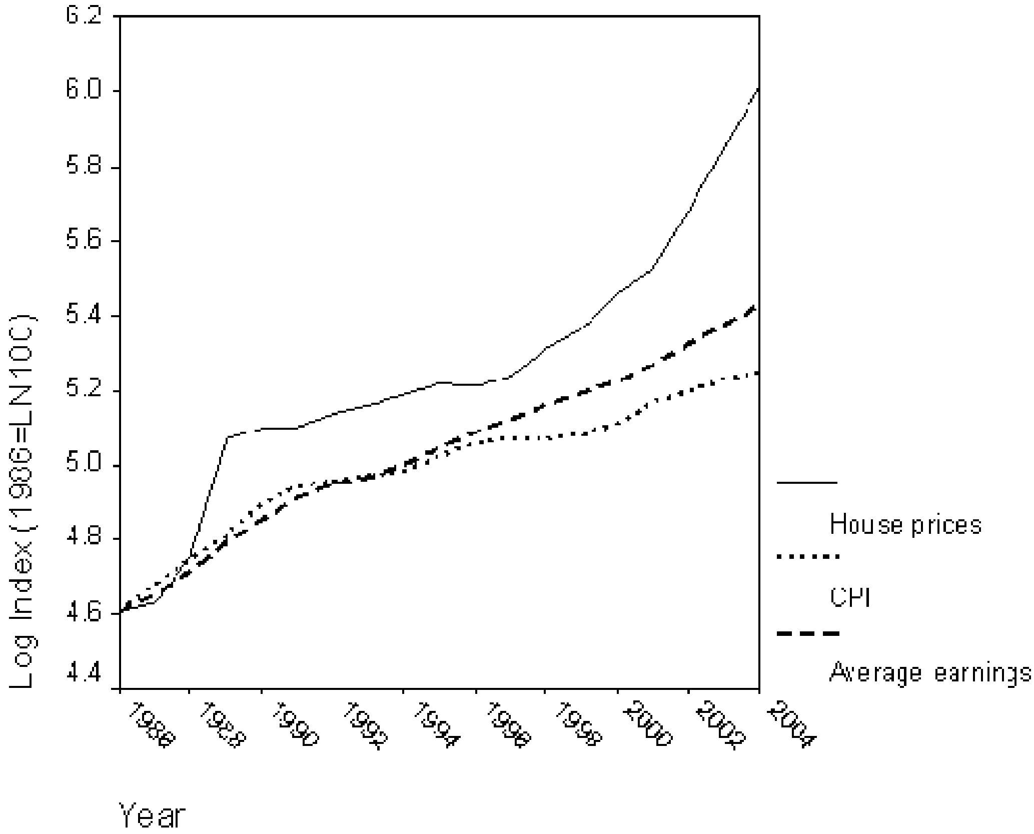

Figure 2: House Prices, CPI and Average Earnings from Saunders (2005)

It is one thing to have house prices correlated to average earnings, but quite another to recognise that the correlation coefficient is inappropriate for long term equity and social sustainability. Saunders recognised in Figure 2 the significance of the growing gap between house prices and average earnings and demonstrated in his analysis an understanding of house prices that went beyond the prosaic. Most people believe houses appreciate faster than inflation, but find the cause mystifying. Saunders reasoned that if wages exceeded inflation, which is the case in periods of rising standards of living, house prices could follow wages without creating inter-generational inequity. Saunders' insight in this regard is valuable, though its parameter still raise some complications. Saunders is arguing in terms of equity, this places the discussion in the realms of ethics, not economics as commonly understood, though it ripples with economic repercussions. Intergenerational equity suggests initially that there is an ethical relationship of equity to be maintained between generations. If it is violated, future generations will have to commit more of their wages to housing. This will affect demand for housing in the future, and if the higher housing prices are realised, they will necessarily adversely affect demand for that suite of consumer goods that households need to survive.

The common measure relating housing costs to incomes is housing affordability. Housing affordability *"relates to ongoing payments actually being made for housing, not the initial purchase price of dwellings"* in particular *"housing costs include payments of rent, mortgage and rates"* (ABS 2004). This means that financial variable, mainly interest rates, have a major influence on affordability. Over the last fifteen years interest rates have fallen substantially, leading to a strengthening in affordability that has largely facilitated rising prices. These two complimentary influences have left housing stress, the possibility of housing costs becoming impossibly onerous, relatively stable, as shown in Figure 3. This apparent stability in affordability has disguised the gap between house prices and incomes that has continued to widen.

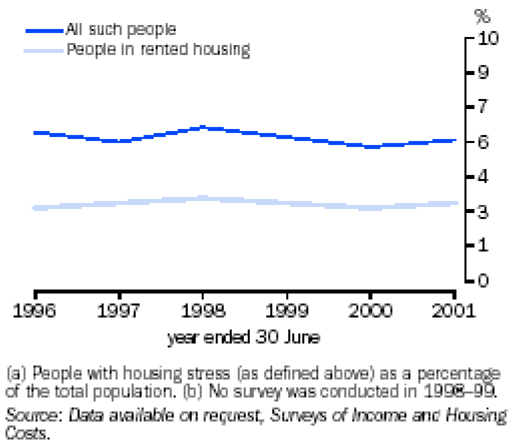

Figure 3: People with housing stress (a)(b) Source: ABS cat. 1370.0 (2004)

A key change that has developed in Australian society over the last three decades or so has been the growth of household income compared to personal incomes. Figure 4 shows real household incomes have been rising at about twice the rate of the adult wage index since 1970. This means that house prices have followed household incomes more closely than individual income levels. Moreover, over the first half of that period, household income growth exceeded house price growth.

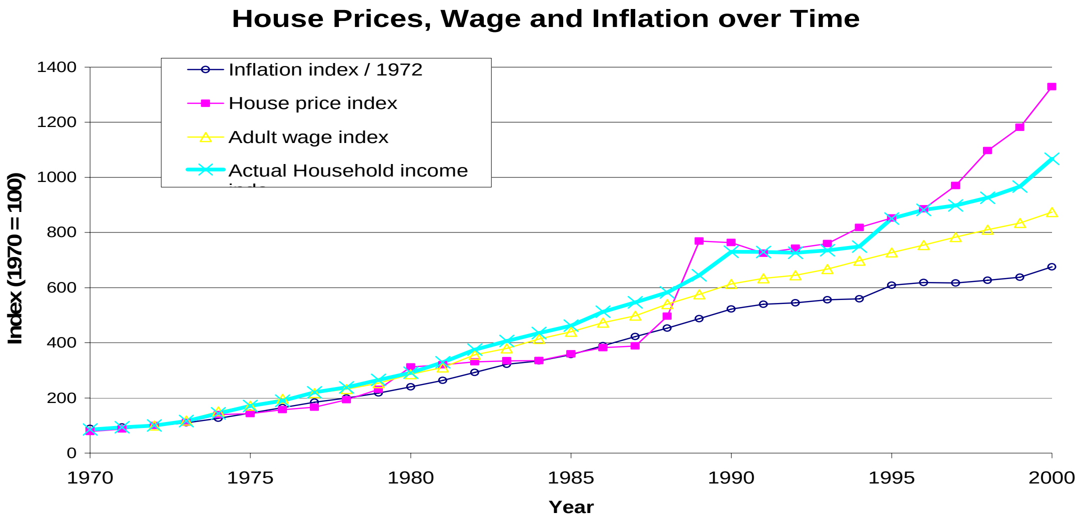

Figure 4: House Price, household income, adult income and Consumer Price Indexes. 1972 = 100
Source: Various ABS data

An explanation of this trend must include consideration of why household incomes departed from individual incomes, why house price growth was able to exceed household income growth, what additional factors have influenced the long term pattern and what the future patterns of each of these influences is likely to be. The disparity between adult incomes and household incomes is best explained in Figure 5 which shows female labour force participation over the last century for key age groups. The sharp rise in female labour force participation beginning in about 1960 and apparently stabilising about 1990. A close inspection of figure 4 reveals that it was over that period that household incomes pulled away from adult wages. The remaining variations could be the result of changing working hours, patterns of full and part time, relative movements between male and female wage rates and the relative contribution of investment income. The major cause however is undoubtedly the transition to dual income family structure as the norm.

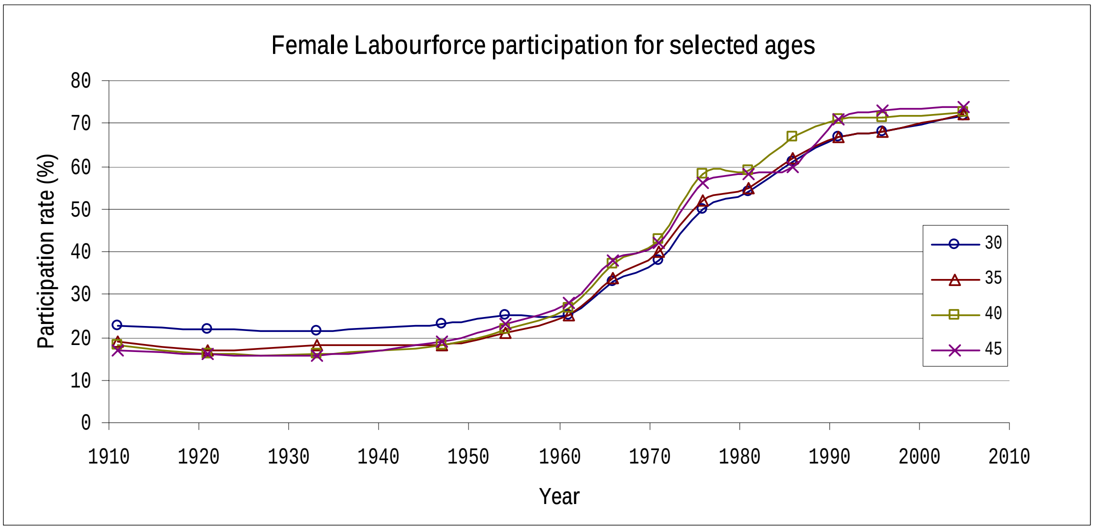

Figure 5: House Price, household income, adult income and Consumer Price Indexes. 1972 = 100 Source: ABS Year Books 2001 & 2006

Behind the rise in female labour force participation has been changes in the birth rate. Figure 6 shows Australian birth rates to 2003.

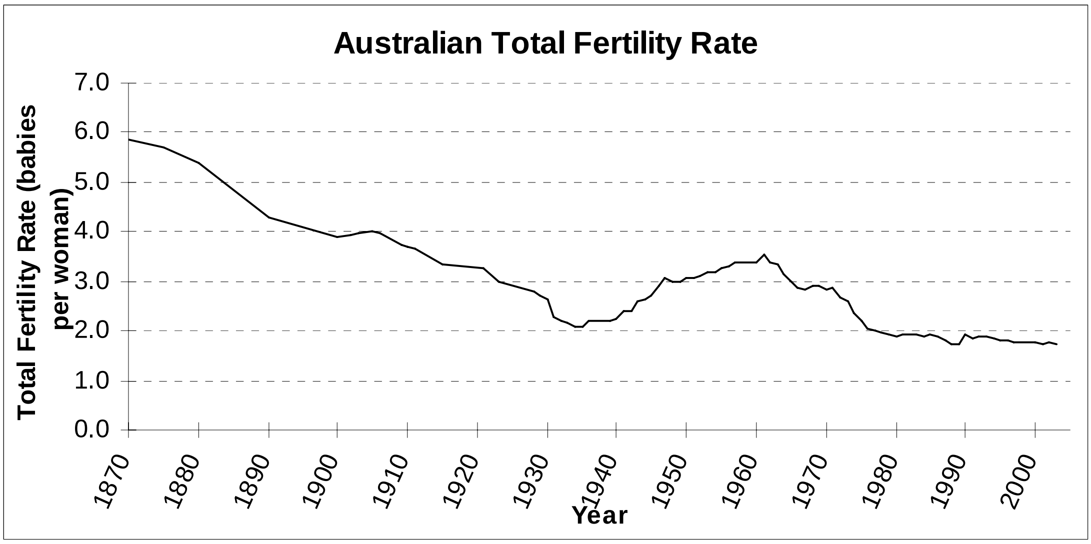

Figure 6: Australian Birth Rates to 2003. Source: ABS Year Books 2001 & 2006

Australian birth rate began falling rapidly from about 1960, largely with the introduction of the contraceptive pill, but also as the result of changes in religious attitudes to contraception, to find a new stable level between 1.7 and 1.9 babies per woman. This level is significant as it lies significantly below the natural replacement level of 2.1. It means that the Australian population will naturally diminish over time. Australia in this respect is similar to most European countries, where total fertility rates down to 1.2-1.4 are not uncommon. This will become the major influence in Australian society for the foreseeable future.

The birth rate record has other significant features that warrant attention as the influence housing demand, and hence prices. A major depression in the birth rate followed 1930. This date is usually associated with the Great Depression, but is also the year of the seventh Anglican Lambeth Conference that decreed that contraception was an acceptable practice for Anglicans. At the time the determination was taken by members of other Protestant denominations and even the Jewish community as a signal that contraception was not contrary to religious practice. Given the significance of religion in the community at the time, it is likely that Lambeth greatly magnified the effect on birth rates that is usually attributed to the depression. Whatever the cause, it resulted in a gap in birth rates that has resulted in relative under-representation today of persons aged 60-75. The combination of this absence with the fall off in fertility that marks the post 1975 period has combined to create the illusion of an excessive aged demographic bubble that currently attracts press as the problem of aging population. The apparent bubble is really the return during the 1950s to prior birth levels.

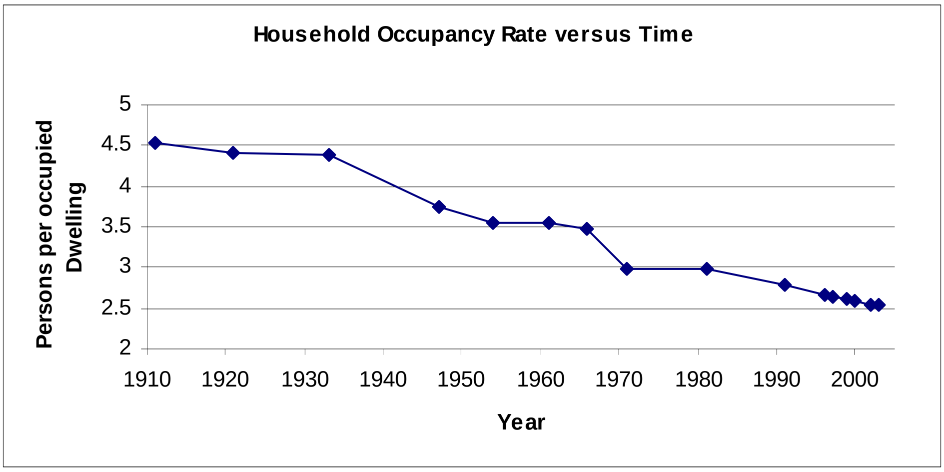

Figure 7: Household Occupancy Rates to 2003. Source: ABS Year Books 2001 & 2006

The falling birth rate has been blamed for falling occupancy rates, though this is probably an oversimplification. Occupancy rates have an important influence on housing demand and Figure 7 shows that they have fallen over the last century. In that time they have tended to follow trends in the birth rate, with major changes following 1930 and about 1965. As well, the current pattern is partly due to changed family structures and demographic anomalies that have resulted from the sudden drop in birth rates. The 1975 Family Law Act facilitated divorce in Australia, reflected in the divorce statistics shown on Figure 8. Divorce has an effect on household size, but also its easy availability may be having more complex impacts on housing choices.

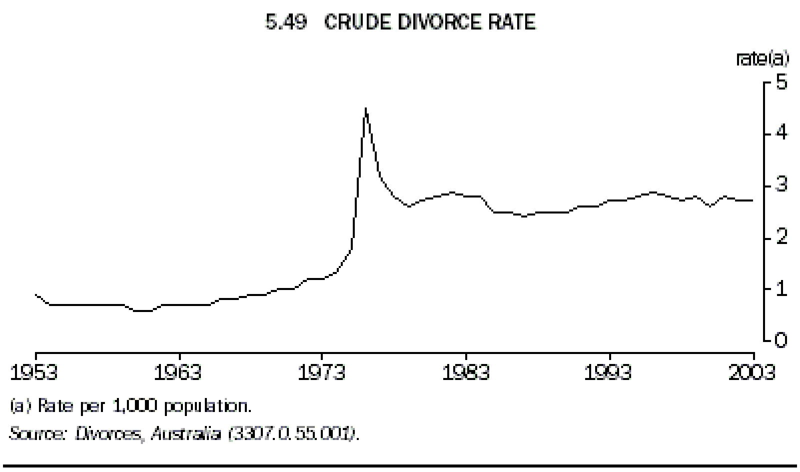

Figure 7: Household Occupancy Rates to 2003. Source: ABS Year Book Australia 2006

There are also financial factors that have changed connecting income to housing. Figure 8 shows interest rates from 1930 to the present. Running almost coincidental to female labour force participation growth, interest rates grew from about 1970 to 1990. The effect of this growth could be expected to have dampened demand for house finance, hence housing demand. Figure 4 shows that it was not sufficient, with house prices still pulling away from incomes.

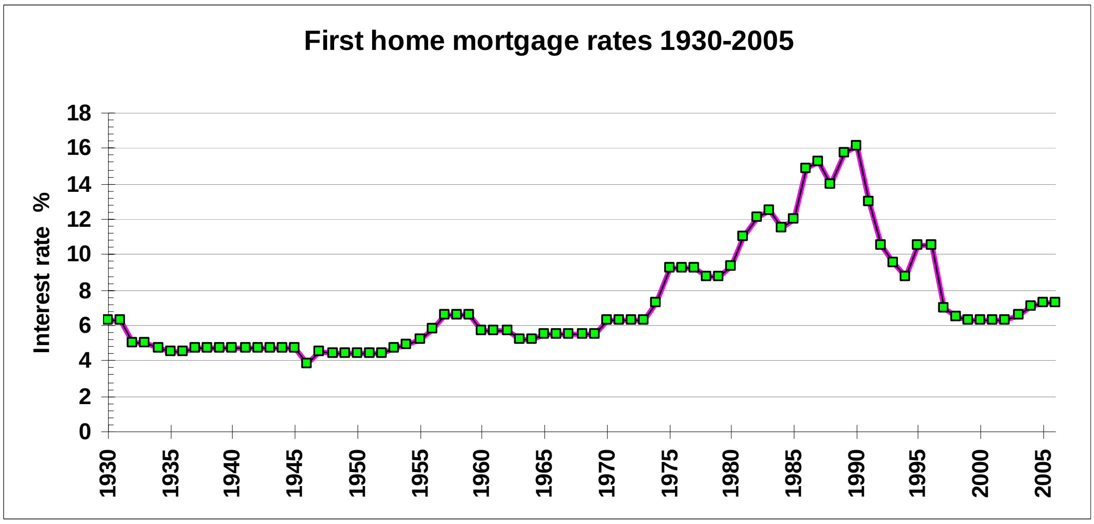

Figure 8: First home mortgage rates. Source: Commonwealth Bank of Australia

What does stand out in the graph is the way that interest rates were able to be sustained for about two decades at levels that would have been totally unsustainable at any period earlier in history. The longer record of mortgage rates in Australia, that in the case of NSW reach back to 1852, show that before 1970, mortgage interest rates have been typically within 0.5% of 5% except for very short excursions above or below that range.

Closely related to interest rates are inflation rates. Figure 9 shows inflation over the last century. If inflation below 5% is ignored, Australia has had three significant periods of inflation. There were short periods of inflation following the ends of the two World Wars and a period of twenty years following 1970. While there are many factors that are said to influence inflation, it is coincidental that it also correlates with the period of rapid growth in female labour force participation. More interesting is its positive correlation with interest rates, a correlation that economic theory claims should not exist, but one that persisted for two decades. In theory, when interest rates rise they discourage borrowing, which in turn reduces demand and this dampens inflation.

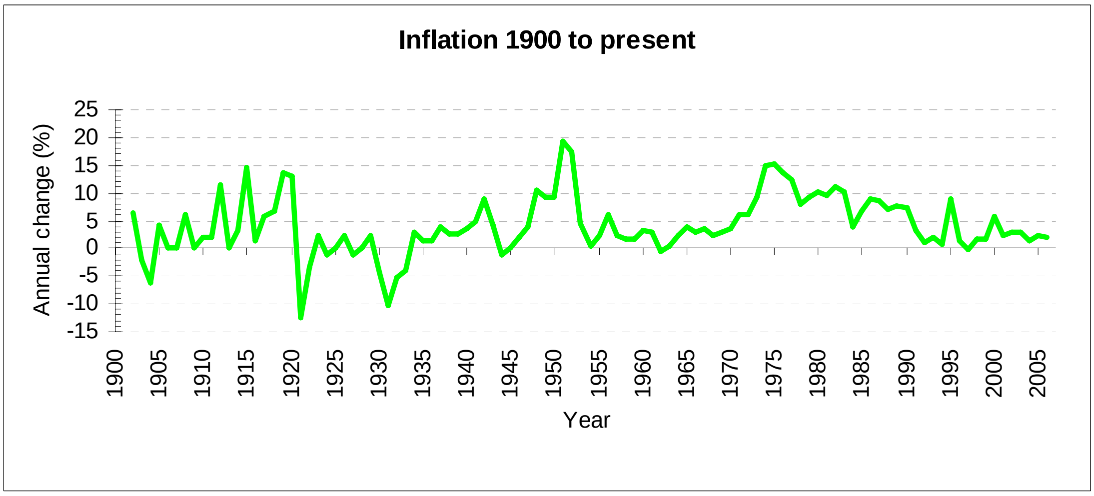

Figure 9: Inflation as annual changes to the Consumer Price Index. Source: ABS

The reality appeared to have been that rising female labour participation increased household incomes and hence household demand. This translated, amongst other things into property price growth. But when interest rates rose that would normally discourage borrowing, households responded with more female labour force participation, negating the otherwise balancing influence. This process was able to support coincidental inflation and high interest rates until female labour force participation had risen to as close to its maximum as is currently humanly possible. This is reflected in Figure 10 that shows participation rates for men and women, both of which are now slightly falling.

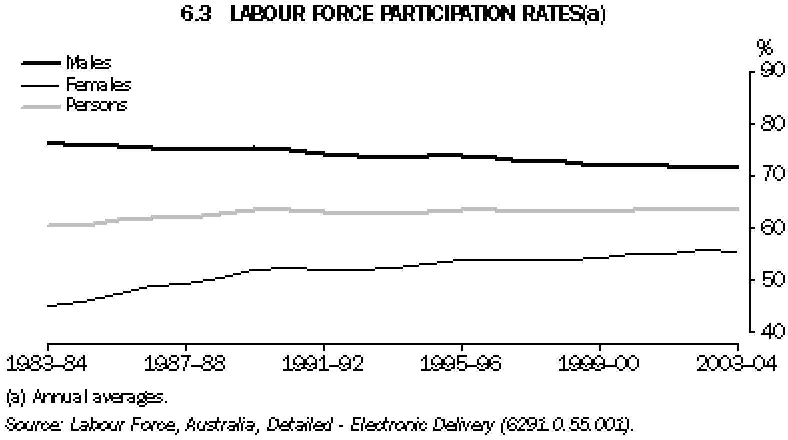

Figure 10: Labour force participation rates. Source: ABS Year Book Australia 2006

The changes in household structure and labour force engagement have also resulted in various housing finance strategies over the period under review. It has been noted that 1970-1990 households have been resilient to both interest rates and inflation. Abelson and Chung (2005) noted that house price growth exceeded inflation during this period by about 3%pa. That, combined with high inflation, meant that capital growth in property had become very high and at the residential level was available to most households willing to work two incomes. That circumstance resulted in a very positive view of real estate investment that basically educated an entire generation into the benefits of debt driven property investment, especially fuelled through the mechanics of negative gearing and its associated tax benefits in Australia.

The discussion so far does not consider the period following 1990, but it will be shown that the social influences of the earlier two decades has spilled over into investment practices over the post-1990 era. Borrowing levels 1970-90 were limited by the debt servicing ability of households and in a high interest rate environment this was in a way effective. Following 1990 interest rates fell and consequently the effective borrowing capacity of households has risen. Figure 11 illustrates the way that debt servicing obligations have been relatively stable in terms of interest paid, but the level of debt has expanded considerably over the past two decades.

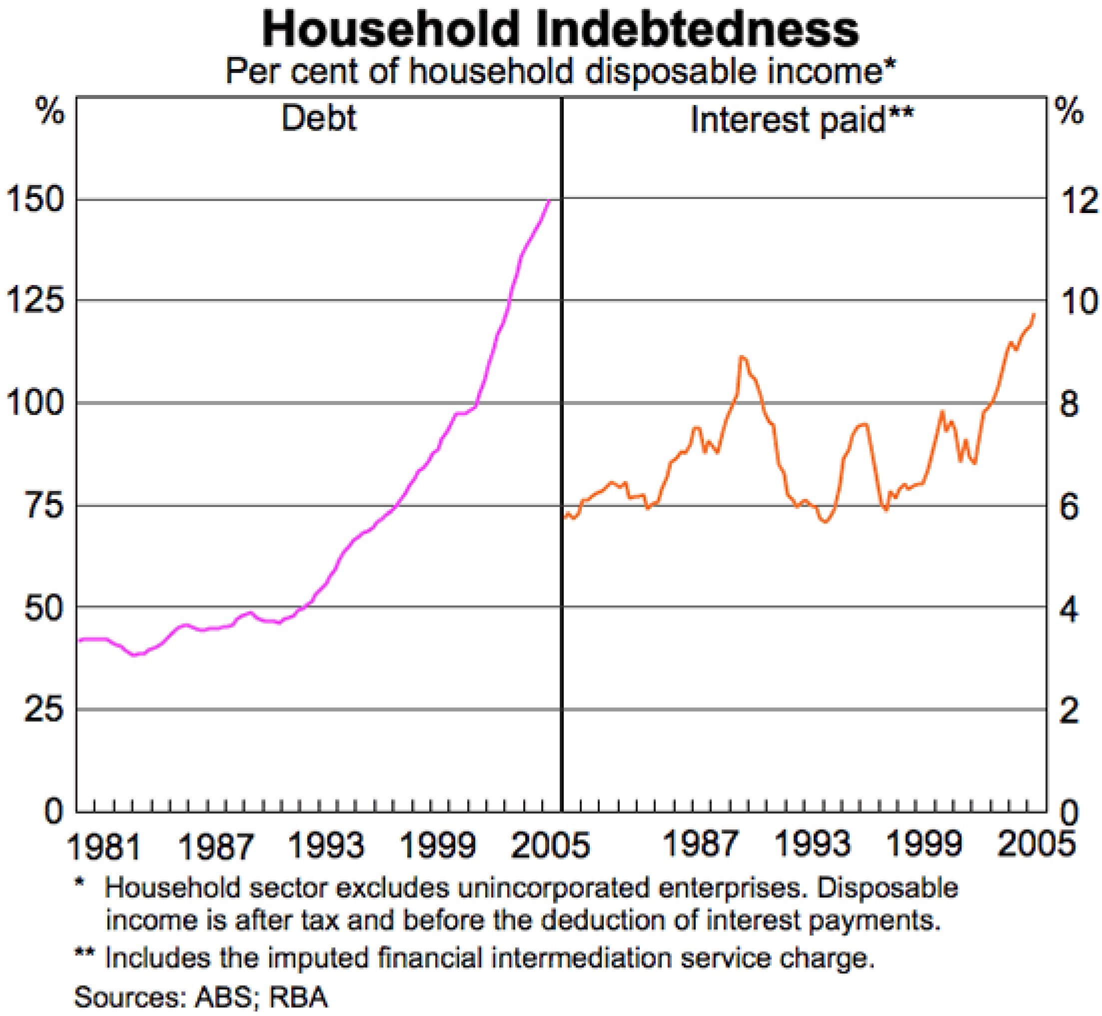

Figure 11: Level and Costs of Household Debt.

This graph explains why house prices as shown in Figures 2 and 4 have been able to exceed income growth over the last twenty years. In part the openness to debt shown by the Australian community since about 1993 is the result of attitudes to debt and investment returns produced by the preceding two decades that ultimately trace back to changes in fertility. While the total effect has been an apparently consistent growth in house prices from about 1970, and one that has been substantially above general inflation, it is ultimately grounded on influences that are not sustainable. Household indebtedness is now over three times what it was in 1990 and debt servicing obligations are showing signs of exceeding long term norms. With near universal adoption of dual income households, the solution of the 1970s is no longer available.

Social change futures

The falling birth rate was part of a set of social changes that took root in Australia in the period 1970-90. Along with it came rising divorce rates and non-married couple households. The net effect of these changes has been an increase in household income combined with a reduction in household size and the relative proportion of household dependants—with fewer children and more incomes the domestic dependency rate has plummeted.

All of these have had positive effects on the demand for, and prices of, houses, however they are effects that have now become integrated into the Australian society and to varying degrees cannot be expected to change in similar ways into the future. Birth rates may fall to perhaps 1.0 from the current 1.7, but below that level contraceptive failure and human needs will make further falls unlikely. Even then the fall will not be of the same magnitude or have the same impact as the fall 1960-75. The transition below replacement is itself an extremely dangerous one as it signals the beginning of a demographic spiral that will eventually phase out Australian culture as we know it. The current solution to the demographic problem is immigration. This has been extremely successful for Australia in the past, however its long term future is dubious. Figure 12 shows international fertility rates.

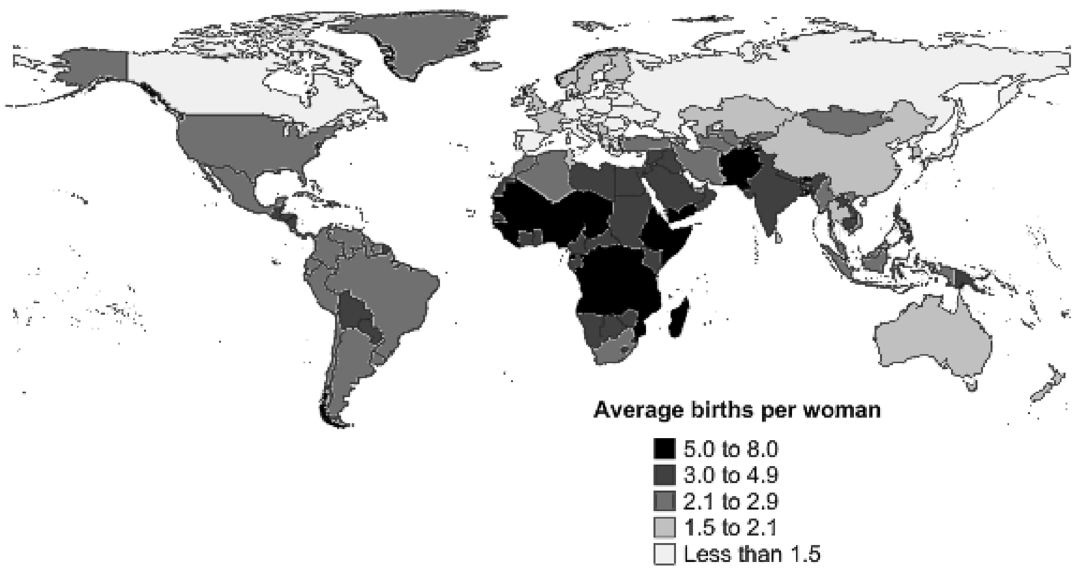

Figure 12: Total Fertility Rates by Country. Source ABS Year Book 2006

In the past Australia has benefited from immigration from countries that have cultural similarities to the dominant Australian culture. These have often come as a result of local economic stress or political upheaval. A survey of Figure 12 reveals that culturally similar countries, such as Europe, now have fertility rates similar or below Australia's. That means that there will be little prospect of them wanting to immigrate over the longer term. The countries that are having children, and are therefore potential sources of future immigrants are culturally dissimilar and tend have lower standards of living. While many of these people may be more than willing to migrate to Australia, the eventual result will be a progressive transition into the cultural profile of the new majority. The future population may be unable and unwilling to sustain property prices at the level they are currently trending.

Household size is also a social change that has undergone a substantial change, but will probably stabilise into the future. With average occupancy of about 2.5 there is negligible scope for family. In many urban localities occupancies are below 2.0—that is, having someone to speak to at dinner time puts one in an above average sized household. There is a human reality here that is not apparent in trend lines—

occupancy rates are already socially problematic and have been since they fell below 3.0.

Conclusion

It appears that house prices have absorbed much of the additional economic capacity obtained by households in the period 1970-90 as a result of fertility restraint and female labour force participation. House prices are now at levels that demand small families and dual incomes. The trajectories of house prices over that time have probably responded to those social changes and hence have been set by exogenous influences that are not capable of being reproduced in the future.

The period following 1990 has been dominated by a trend of increasing household borrowing. This has resulted in an apparent continuity in the pattern of house price growth, but one that is also destined to be only temporary. In the past, the longer term connection between house prices and household income provided a robust grounding for prices and rents. While household incomes provide limits to debt service capacity, they also limit rental payment capacity for investment properties. This may become a problem for current house owners who anticipate rental growth on investment properties. If household incomes have stabilised relative to wages, then future house price growth and rental growth will be more sober than in the past.

In terms of Saunders' intergenerational equity, outgoing landowners have in the past capitalised into their land prices the increases in income purchasers have gleaned through birth control and permanent dual incomes. Their capital gains have been funded by greater household work commitment and comparative sterility. The ethics of that appropriation may be debated. Oddly, it has been the result of free market choices on the part of purchasers, which, given the implicit ethical supremacy of the free market, makes questions of ethics levelled against vendors inappropriate. If the next generation freely chooses to shackle itself to longer working hours or more incomes per household, how can this reflect adversely on vendors? If there is an ethical issue, it cannot be simply a criticism of vendors.

The free choice of purchasers to rely on increasing levels of debt leverage has also been shown to be a factor that has led to greater capital gains for outgoing landowners. It has been suggested that the price growth has been largely speculative, driven by the momentum and optimism of the market which was groomed in a fundamentally different era and fuelled recently by cheap debt.

The community does not have the capacity that it had 1970-90 to tolerate high interest rates and it is sitting on record leverage levels. This is a very unstable combination. It is definitely not the stuff that confidence in future price growth is made of. In terms of intergenerational equity, outgoing landowners in the last decade have capitalised the rash borrowing inclinations of purchasers who are unlikely to see price and rental growth in a timely manner sufficient to justify their purchases, especially when adjusted for risk. Like the capitalisation of dual incomes, it was the free choice of purchasers, hence above the ethical responsibility of vendors, at least within the ethical paradigm of Western economics.

From a policy point of view, a different perspective emerges. If the market institution as currently practiced is capable of inclining the majority of the community into freely adopting adverse circumstances, then it would appear there may be grounds for external controls. The two circumstances that have emerged over the past thirty five years are quite dissimilar, yet they have the same overall impact. Adam Smith observed that *"every improvement in the circumstances of the society tends either directly or indirectly to raise the real rent of land, to increase the real wealth of the landlord"* suggesting that the problem is fundamentally associated with the institution of property (Smith 1778). While this is probably true, the free availability of debt is also somehow involved and the current practice of controlling debt through interest rates alone may be due for review.

The implications for the development industry are clear, though it highlights the short term horizon of most developers. In the longer term demand for residential space will not follow the expansive patterns of the last three decades. In addition, developers need to be far more sensitive to interest rates than in the past as small changes will have greater impacts on purchase decisions. As the trajectory of demand slows, especially in the wake of the last decade of debt driven speculative investor demand, the call for development will be considerably more modest. This does not mean that development will stop, but rather that it will not flourish until land prices have adjusted back to a point where development is feasible.

Overall, this study has shown that house prices over the last thirty five years may be understood in terms of household circumstances better than by simple reliance on economic data alone. Further, the future is unlikely to be a projection of the past, hence econometrics may be becoming an increasingly risky analytic tool for house prices. Many studies that use data from only a only a decade or two have not been able to capture the underlying causality, however the data presented here shows that a major structural change in the dynamics of residential demand is immanent, and will not be detected by conventional time series analysis. Finally the underlying causal influences are exogenous and raise interesting ethical and policy issues that both deserve further attention.

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