

PROPERTY VALUES AND REGIONAL ECONOMIC VITALITY: VALUATION METHODS AS AN INDICATOR OF PROPERTY MARKET BEHAVIOUR

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ABSTRACT: Excessive property values contribute a depressing effect on regional economies. Excessive prices are those that are significantly out of alignment with underlying economic value, understood as either utility or contribution to productive activity. Identification of excessive values is difficult in an environment where market price and underlying economic value have been conflated into the term ‘market value’. Sustainable management of urban and regional economic issues requires the identification of these misalignments and the pursuit of policies aimed at encouraging their correction. Property valuers are specifically trained in the estimation of price and value, where price is the sum the property will transact for in the near future, and value is the economically sustainable price. Markets that have developed price structures above value are unsustainable. Property valuers are well placed for identifying unsustainable price trends. Moreover, the methods adopted by property valuers to forecast market prices themselves are signals of changes in community attitudes to property. This paper employs a critical literature review and observations to examine emerging approaches to valuation practice to inform an understanding of community attitudes to real estate and its value. From this, observations will be made regarding dysfunctional attitudes that are at least contributing factors to a range of local economic and social problems. Finally, policy implications will be suggested.

This study found that recent changes in both urban and regional property valuation suggest that communities have changed their perception of property in a way that is susceptible to the formation of unsustainable price bubbles. Valuers have increased their use of income approaches in response to the belief that

buyers have become more likely to buy property for its income and growth potential rather than its utility in use. This would not be problematic if growth expectations were sustainable, however, there appears good reason to believe that future property growth will not follow the strong trends of the past.

KEY WORDS: Property valuation, capital gain, economic sustainability,

ACKNOWLEDGEMENTS: The authors would like to thank Ian Clarkson for his advice and suggestions on the valuation aspects of the text and the referees for their constructive suggestions for the improvement of the paper.

1. INTRODUCTION

Property bubbles have preceded many of the most spectacular economic collapses of recent times, including Indonesia, Thailand Malaysia and the Philippines (the South East Asian meltdown), USA, Greece, Ireland, Portugal and Spain (the Global Financial Crisis). The contribution of property market bubbles to major economic downturns has been argued for over a century (George, 1992). When local fervour causes property values to increase disproportionately, occupancy costs in the form of elevated debt repayments, or higher rents are increased. These costs are often paid to remote beneficiaries with the result being diminished domestic spending power, hence a depressing effect on the local economy.

While this mechanism is easy to observe on a national scale, especially after the event, it should be considered as a subtle influence on the vitality of regional economies as well. The difficulty is the transition from theory and distant spectacular evidence on a national level, to applications in the understanding of modest, but functional local economies. A related difficulty is the identification of inappropriately high real estate prices in local communities. This is exacerbated by the general belief that growing local property prices are a sign of economic vitality (Harvey and Jowsey, 2004). The challenge is to distinguish between property price rises that reflect a proportioned participation in local economic growth and excessive price growth that can act as an impediment to the economic success of local communities.

The spatial location of real property influences its economic productivity and hence its value (Harvey and Jowsey, 2004, Houston, 2005). Residential property prices in regional cities of Australia are often affected by regional factors, including the prices and volumes of the region's dominant products, natural hazards and life style changes, rather

than by the methods we choose for valuation purposes. The mining industry's booms and bust cycles have been shown to impact on regional residential property prices (Akbar *et al.*, 2013; Akbar *et al.*, 2015a). Agricultural property prices in rural and regional Australia are also affected by their respective commodity prices, regional economic factors and spatial factors. Spatial factors may be divided into physical, such as its soil types for rural land, and social, such as its relationship to population centres.

These various factors are objective, in that they contribute in a material way to the utility of sites, but their impact on price is far too complex to be able to compute using mathematical algorithms. Despite practical difficulties with computation, these factors remain as the foundation of economic value which forms the notional upper limit to price that an informed rational purchaser should be prepared to pay.

Unlike products that contain labour components in their value, the land component within real property has no cost of production, which means that its supply function cannot be constructed from marginalist supply theory (Jones, 1976). Adam Smith believed that land price functioned like a monopoly, even though its ownership is distributed (Smith, 1778 reprint 1910). This is because its price is set almost exclusively by its demand function and the spatial fixity of real estate means that competition for occupation can outweigh any actual sober estimate of economic value. This is not to say that the economic utility of a property is irrelevant, but only that other factors can dominate them. Of these, expectations of the future can be a powerful influence.

With the exception of some land affected by the nineteenth century gold rush, there has developed in Australia a robust belief that real estate is an excellent long term investment that in the long term only ever goes up in real value. This belief has taken many forms, including references to the solidity of 'bricks and mortar' as investments. Over the last half century, the rate of growth of real estate prices has been so strong, as shown by the Australian House Price Index (see Figure 1), that land price growth is now factored into estimates of the financial worth of real estate. By the end of the 1980s financial value included present profitability plus anticipated growth (Wilson, 1990 #121) and this approach was incorporated into the investment valuation of property.

This has meant that the market price now includes an allowance for its own future growth. While this might make some financial sense, it means that purchasers are willing to pay more for property than its immediate

utility justifies. It also means that purchasers are exposing themselves to the risk of future growth not fulfilling expectations.

The former problem is evident in several parts of the property market. Residential property has given rise to the housing affordability problem that has become a blight in several areas, mainly in capital cities. For productive land, such as commercial or rural land, it is apparent as yields that are too low to be financially viable.

The second problem is beginning to be considered in several markets as it has become evident that the growth patterns have taken property prices outside any sustainable relationship to the local economies in which they are embedded.

Property valuation (or appraisal) is the professional forecasting of market behaviour with respect to property price. The forecasted price is “*the estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm’s length transaction, after property marketing and where the parties had each acted knowledgeably, prudently and without compulsion*” (IVSC, 2013. P.5). The valuer forecasts what price people may be expected to exchange real property for, whereas the more interesting social or economic question is what people should exchange it for.

Property valuers often have at their disposal the necessary tools for estimating this second question, but usually their primary obligation is to avoid reference to it where it conflicts with the expectations of the market (Small, 2009c). This paper will use emerging approaches to valuation practice to inform an understanding of community attitudes to real estate and its value. It will then examine two case study markets, the residential market and the market for cattle properties, to consider if prices and growth patterns are economically sustainable. Conclusions will then be drawn regarding the contribution these factors may be making to a range of local economic and social problems. This is examined using critical literature review and observations. Finally, policy implications will be suggested.

The paper has been organised as follows: following this introductory section, Section 2 provides contextual background for the study; Section 3 uses pastoral property (cattle land) as a case study to examine the reality of excessive price patterns in a regional income producing property market Section 4 uses residential property as a case study to provide a critical review on rationality and market perception of property in an urban market dominated by owner-occupiers; Section 5 considers the sustainability of growth trends in residential property; and Section 6

explores policy strategies for realigning property value and price. The paper concludes in section 7.

2. VALUATION APPROACHES

There are several practical approaches, or methods, of valuation. These are summarised in Table 1. They are employed subject to the particularities of the property to be valued, but they also infer certain things about the way that the property is perceived. This has implications for the economic and social trajectory of both urban and regional property and their communities.

Valuation of land tends to be carried out using positive methods that merely locate a particular parcel of real estate within its local market, usually by reference to similar, or comparable, properties that have been recently sold. The simplest way to do this is by direct comparison between the property to be valued and similar properties that have recently been sold. This is known as the sales comparison approach. It is the most direct valuation approach and may be used on any form of property, so long as it is possible to find adequate recent similar sales.

The most elaborate form of direct comparison valuation uses multiple regression modelling to analyse a large volume of sales data on the basis of detailed property descriptions. This is an application of hedonic modelling and can include both physical and economic variables (Shabana et al 2015). These methods are finding applications in automated valuation systems for mass appraisal that are being employed in public valuation for rating and taxation uses.

The direct comparison method does not take any direct account of the economics of ownership of the properties concerned. It focuses instead on the direct positive evidence of the strength of the desire for real estate that is evident in the price of comparable sales. Since price here is the result of a subjective evaluation on the part of buyers, it is almost a psychological process, making property valuation almost a branch of applied social psychological research. This subjective psychological foundation for property value may be appropriate for property that is held purely on the basis of some non-economic quality, such as quality of views, or the social status of neighbours (Whipple, 2006) , but it seems out of place for productive property. For property that is primarily owned for productive purposes, such as for a shop, office or factory, the economics of the enterprise that operates on the site implies an economic, or perhaps financial, basis for value. Property of this nature takes its price

from its contribution to the profitability of the enterprise that uses it. This can be objectively determined.

David Ricardo's (1817) law of rent posited that if a merchant occupying a shop in one location is able to earn a gross profit higher than a merchant occupying a similar shop in a different location, then in a perfectly rational market the difference in rental value that the merchant might be prepared to pay would be equal the difference in gross profit, so long as other costs are unchanged. This process is currently evident in the contrasts between shops on the main streets of established towns and those in nearby shopping malls. The malls have attracted the shoppers into them, which leads to greater sales for the merchants locating within them, raising their gross profits, and the centre operators are able to charge higher rents accordingly.

Deriving property value from income is more appropriate for properties where the owner is less interested in the property as property, but more focused on the property as an income producing asset. The simplest and oldest income method of property valuation is the capitalisation method. It computes property value by dividing the rental of a given property by the anticipated yield, deduced from comparisons with comparable properties. While the method still relies on comparable properties for calibration, the focus on rents and yields causes this method to be thought of as an income method rather than a comparable sales method. The capitalisation approach uses net rent and yield to determine property value using the following relationship (Whipple, 2006):

$$V = \frac{R}{I}$$

Where: R= net rent (net operating income) and I = yield

The most complex is Discounted Cash Flow (DCF) analysis. DCF valuation is a relatively recent addition to the valuer's tool kit and is still considered controversial, despite now finding common application on more complex properties.

The third valuation approach is based on the cost of production of the property, known as the cost approach. This approach breaks a property into its component parts and sums their depreciated replacement costs to the land value to arrive at the total property value. It estimates property value on the basis of the following relationship:

$$V = L + (C - D)$$

Where: L= Land Value, C= Cost of construction of improvements and D=Depreciation on improvements

The cost approach is most commonly used as a check method, as the market tends not to consider costs in setting prices.

Table 1. Comparison of Valuation Approaches.

Valuation Approach	Area of Use	Advantages	Disadvantages
Sales Comparison Approach	Vacant land, Dwellings, Commercial, Industrial, Retail, Rural	Can give an accurate thought of current market if like sales available	The lag in sales being negotiated to the time they are officially recorded means market may change Requires like sales, or ones where minimal adjustment is required for accuracy
Income Approach	Residential flats, Commercial, Industrial, Retail	Values the property on the basis of earning capacity so relates property worth to income production so not as influenced by short term perceived bias	Accuracy of information to determine Income stream, Capitalisation rate or Discount rate Enough market evidence to provide accurate data. DCF relies heavily on forecasts not currently available data.
Cost Approach	Dwellings, Commercial, Industrial, Retail, Rural	Relates property to cost to replace. <i>(Useful for insurance valuation that focuses on construction costs)</i>	Requires intimate knowledge of costs for type of property or a Quantity Surveyor report Requires sales evidence to assess land value Requires evidence for assessing depreciation In a heated market a premium may be paid for immediate availability which this approach cannot reflect

Source: the Authors.

Property valuers usually aim to adopt the most direct comparison between a subject property and evidence of recent sales that is available (Whipple, 2006). Hence, the income and cost approaches tend to be used as check methods, unless direct comparison is difficult for some reason.

Behind the valuation approach is the expectation that the approach adopted responds in some way to the mental determination of the most likely buyer. In the residential markets where buyers were owner occupiers, the direct comparison approach fulfilled this objective. However, when investors became an increasing proportion of buyers some valuers suggested that an income approach may be more appropriate. Some submarkets, such as new apartments in major capital cities, are ripe for this approach but it is not limited to them alone.

The common income approach using capitalisation rates reveals the importance of yield to investors. In practice, investors consider yield very closely, along with anticipated capital gains. If yields are a substantial determinant in the investor's mind, then the valuer should aim to reflect this rather than ignore it, because the valuer's work is to predict the actions of the market, not determine them.

3. RURAL PROPERTY VALUATION

The sales comparison approach finds a specific application in rural valuation by using comparable sales to establish the value per hectare applicable to the subject property (Baxter and Cohen, 2009). Despite the primary purpose of a farm being income production, this method avoids the economic productivity of the farm.

Implicitly, this approach recognises the complex relationship between owner occupiers and their farming properties taken from an age when the 'family farm' was the basic unit of rural production. The relationship is complex because the farm provided for the owner's housing and some subsistence needs as well as generating commodities for sale. While the house may be valued as a component of the improvements on the rural property, its utility as a home is not central to the value of the property as a rural business.

Today's rural residential properties have taken this aspect to an extreme, where what is apparently a farm has the primary function of a residence. Motor transport has increased the urban penumbra well into supposedly rural areas. Rural properties directly adjacent to growing towns often have inflated values due to their possible potential for urban development, and rural residential use further adds to demand for these localities. The rural residential phenomenon appears to influence rural

values to perhaps thirty minutes drive from stronger regional centres and more so for major cities. For this reason, when considering rural property it is more reliable to consider only those areas that are beyond the rural residential belts that surround these centres. Smaller and more remote towns suffer less from this effect.

Over the last half century transport and mechanisation improvements have increased rural production per unit of labour and farm produce prices have fallen relative to wages. This has meant that the labour density in rural Australia has fallen relative to output and former family farm properties have had to be aggregated in order to be economically viable. Older and smaller parcels of farming land no longer support their owners by providing them with a livelihood. Houses on these properties are perceived as elements of over-capitalisation.

Rural property is primarily held for income production, based on the physical use of the land. The land is intimately and physically connected with its economic use. The farm's purpose is to produce an income for its owner and this income is the result of the land itself, the improvements on it, the stock and its spatial relationship to markets and suppliers. While there is a tradition of farms providing accommodation for their owners, this is secondary to their function in providing a livelihood and their valuation must respect this balance. Farms are best valued as 'going concerns' and their value should be linked to their durable ability to produce income. For any given land use, the revenues and costs are usually fairly objective and knowable for a district. This suggests that given the income and rate of return requirements on capital providers, the business circumstances of each property should be able to provide a good estimate of the economic value of the property.

Under these conditions it is no surprise that there have been calls for more emphasis on the use of income based valuation approaches. Income approaches are not interested in the physical characteristics of farms beyond appraising their capacity to contribute economic productivity. This can be denominated as cash flow and valued using the DCF approach, though this approach is still less commonly employed for rural property.

The economics of pastoral properties can also be appraised using a number of alternative methods that are often based on various production metrics which serve as proxies for income potential, but in practice have more the character of sales comparison approaches. Best area valuation (BAV) is one common approach. The BAV approach estimates the sustainable carrying capacity of property, and multiplies this by a factor

representing the land value per sustainable head of stock (Baxter and Cohen, 2009, pp.102-7). This factor can be estimated from the costs and revenues associated with farm operation in a district and reduced to a per head unit, or simply by analysing the value and sustainable carrying capacity of comparable recent sales.

If the value per head of carrying capacity is deduced from some form of economic analysis, then the method is an indirect income approach. However, it is more commonly deduced from comparable sales, which makes it instead a form of indirect sales comparison, though it is considered by valuers to be a separate approach to either of these.

For pastoral properties, this implies that analysis using the sustainable carrying capacity and the economic value per head should determine the financial value of the property. Put another way, the value of rural property should reflect its participation in the productivity of the venture. McLean (2013) effectively tested this assumption when he analysed the cattle industry in Queensland and developed measures of key financial parameters. He found that for the decade from 1999/2001 to 2009/2011 cattle income had been stagnant but land values had increased by 179 per cent. Despite efficiency increases that permitted earnings before interest and taxes to rise by 12 per cent over the same period, debt and interest costs had risen by over 300 per cent to leave average farm viability questionable. McLean focused on the problem of increasing debt, and noted that much of the farm profit over the period was due to capital gains in land.

McLean's concern was that the level of debt that had entered the industry was unsustainable. It had helped fuel capital appreciation and created the illusion of profitability whereas in fact the entire industry was becoming less profitable in real terms. Implicit in McLean's findings was that the BAV factors that are in use do not value properties in terms of their genuine economic value, which is the purpose of the farm, but merely in comparison to its local market, most of which is trading at unsustainable levels. Vail (2014) noted that cattle properties in Queensland appear to be priced at levels that make it very difficult for incoming owners to make them viable and has developed an alternative valuation method based on their economic productive capacity.

Vail's (2014) method employs a multiplier that is applied to the farm gate price and multiplied by the sustainable carrying capacity to deduce a rational property value. The multiplier may be determined from financial analysis of the industry to yield the maximum property price that could still leave the farm adequately profitable. The application of this approach is especially useful for informing potential purchasers of the price

threshold between farming success and failure. This method has the advantage of being a genuine income approach that would satisfy the Spencer test assuming rational buyers. The Spencer test refers to conditions for fair market value set down in the case *Spencer v Commonwealth* (1907) 5 CLR 418 that are now implicit in Australian and international standards for property valuation.

Applying this analysis to an array of cattle properties across Queensland has revealed that many properties are significantly over valued by the market (Vail, 2014). Vail's approach provides a tool that satisfies the Spencer test of estimating the price that an informed, but not overanxious buyer would be willing to pay (Small, 2009c). The fact that the actual market is operating well above this level demonstrates that the market is imperfect. Given the available information, it appears that the inefficiency has more to do with irrationality than ignorance, which is consistent with a growing body of literature in what has become known as behavioural economics (Kahneman and Tversky, 2011). Simply put, an irrational trust in future capital gains appears to have rendered the pattern of property prices unsustainable.

There are certain buffers that can soften this bleak outlook, such as efficiency gains from consolidating adjacent parcels, possible emerging management practice, or stronger future prices, but all of these are imprudent as foundations for an entire market. Other rural analysts, such as Mercardo (2015), are questioning how the upward trend in rural markets can continue, especially as it is becoming evident that many pastoral properties are already unviable. This has led to Michael Vail's 'bigger fool' notion which suggests that many buyers, once they discover the foolishness of their purchase, hope to sell their property to a *bigger fool* who will emerge to take the property at an even higher price.

4. THE POLITICAL ECONOMY OF RESIDENTIAL PROPERTY

The dynamics of residential property are quite different, but there is reason to believe that it is also suffering from the same fundamental problem. Using residential property as a separate case study illustrates that the problematic over pricing of land is not limited to a single property sector.

Owner occupied residential property is held purely for its utility in physically supporting the household. Therefore the cost of residential property is a part of the total utility budget of the household. Assuming other costs, such as food, medical care, entertainment, education and

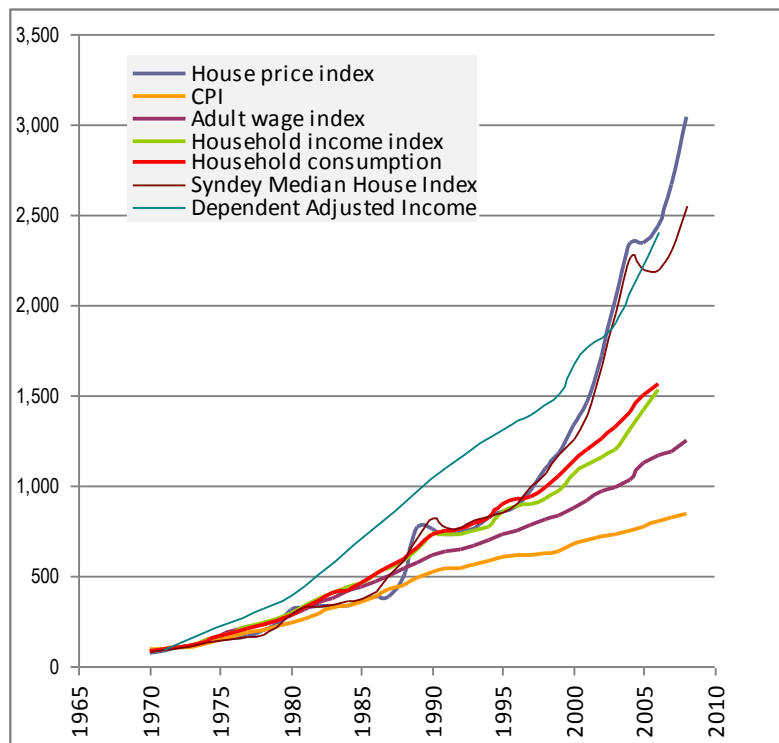
clothing are relatively stable, then the household's capacity to pay for housing may be thought of as a residual which may absorb whatever is left from the household income, apart from savings.

If the market was rational, bidding for property would stop once it reached a price that threatened standard of living. However, humans are more complex, and housing is heterogeneous. Housing has two meanings for the owner occupier. It can mean a domicile location, or it can mean an investment.

As a domicile it competes with the other goods and services of life to deliver a standard of living package in the present. Part of the utility of housing is its intrinsic physical qualities and part is its social utility as a spatial social status marker. There can be trade-offs between these two utilities depending on the social aspirations of the household. As an investment, the property has no relationship to utility and for owner occupier the investment merit lies in the capital gain on sale which will potentially contribute to the owner's future standard of living.

The promise of a capital gain on sale is by no means certain, but if there is a strong enough belief it will be realised, then it has the potential to entice buyers to invest at a higher price than the direct utility would suggest prudent. That is, the promise of a future profit has the capacity to cause households to ignore the immediate reality that the cost of their housing choice will cause a fall in their current standard of living. Moreover, accepting a lower present standard of living is often perceived as prudent, due to the promise of future profit. This has become almost a cultural value, but it carries a strange irony. While it is true that for a particular owner, the foregone standard of living in the present is repaid with an additional profit on sale in the future, for the purchaser in that future transaction the property will mean an even greater sacrifice of living standard. Abelson and Chung (2005) noted this when they concluded that house prices were violating intergenerational equity.

Evidence of the implicit falling standard of living of dwelling occupants over the last half century was presented by Small (2009b) and shown in Figure 1. Small found that the average Australian household must be smaller and earn a double income to have the same relationship to housing costs as in 1970. Warren and Tyagi (2004) found a very similar pattern in the USA. During the period 1970-1990 residential property became associated with capital gains, which relaxed focus on yields. Overall, affordability over the period deteriorated which implied a fall in occupant standard of living. To some extent therefore, the affordability crisis can be attributed to the way that owner-occupied housing is perceived by its buyers as more of an investment than a home.



Source: Small (2009b).

Figure 1. House Prices Compared to Incomes and Inflation.

The experience of the last fifty years evident in Figure 1 has produced confidence in ongoing capital gains which may explain the popularity of negatively geared investments. Generally over that period capital gains have been above inflation. Conversely, there is also a growing belief amongst economists that the future pattern of capital gain will be very different to the past (Keen, 2009, 2015).

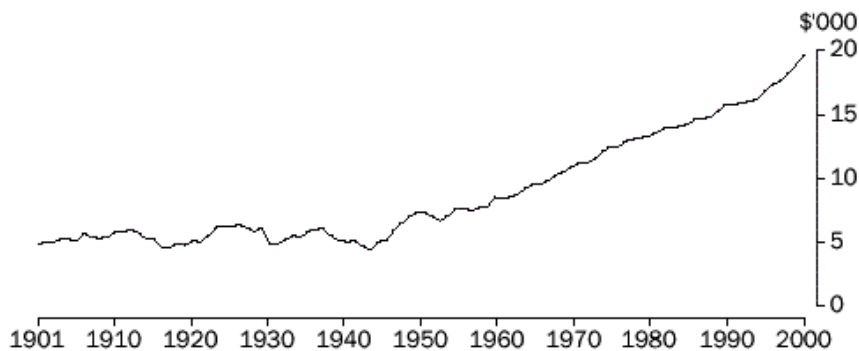
Confidence in future capital gains has inclined both owner-occupiers and investors to accept conditions that superficially appear unattractive, including lower standards of living and lower rental yields. To the extent that rents have exceeded inflation over the longer term, tenants have also suffered as a result of the capital gain culture. The shifting in valuation approach from direct sales comparison to the income approach is

consistent with this shift in community perception of the nature of property.

5. SUSTAINABILITY OF TRENDS IN RESIDENTIAL PROPERTY GROWTH

Some insight into the trends in property prices can be gleaned from the patterns in household consumption. A close inspection of Figure 2 reveals that household consumption has followed household incomes, whereas house prices have exceeded their growth. It also shows that for the ten years following 1995 consumption grew ahead of incomes.

The Australian Bureau of Statistics Year Book (2001) contained Figure 2 that showed that real household consumption over the twentieth century contained a mid-century transition from stability to steady growth.



Source: Data for 1900 to 1980 are from Appendix Tables 1 and 4 of Maddock and McLean (1988), supplemented by ABS population and national accounts data from 1981.

Figure 2. Real Household Consumption over time.

Small and Waxman (2002) dissected that growth phase into two sections. The first lasting about twenty years from 1945 and consisting of post war reconstruction and proliferation of technology accelerated by the war. The second of about the same duration resulted from social changes, largely revolving about the formation of double income families as the dominant household form. Small (2009b) added a third growth phase that began in the early 1990s, but this stalled with the Global Financial Crisis. This third growth driver was rapidly rising indebtedness and reflected in the ongoing concern shown by many economic observers of the

Australian economy such as the Reserve Bank (Connolly and McGregor, 2011; RBA, 2003, 2004).

The third phase of post war growth has ridden on the back of increasing indebtedness driving speculative investment (Small, 2009a), but has been situated within faltering employment and reliance on resources sales rather than value added products to balance the national economy (Keen, 2009). Rising indebtedness also explains why consumption exceeded incomes during that same period. More recently, foreign investment in Australian housing is being actively promoted by government policy that assumes “that foreign investment in Residential Real Estate should increase Australia's housing stock” (FIRB, 2015). The real impact is popularly believed to have more to do with propelling prices higher, though some argue that foreign investment still represents only a minor part of the market (Hendrischke and Li, 2015).

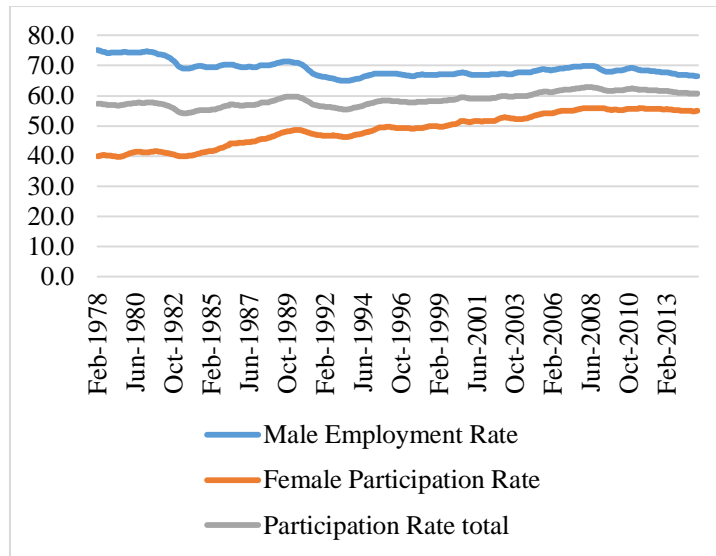
As a whole, the Australian residential market relies on the capacity of households to pay for housing, either as rent or mortgage repayment. That capacity depends on household incomes, hence measures of wages and employment are the necessary indicators of the sustainability of house prices. Labour force participation rates provide an insight into the longer term trends and the following graph (Figure 3) of participation rates over time reveals a stagnant labour force with falling male participation rates:

This stagnation is magnified when combined with the shift from full time employment to part time employment evident in the Figure 4 below. It shows that from 1978 to 2015 part time employment grew from 15 per cent of the workforce to 31 per cent.

Despite this, during about the same period, household debt has risen spectacularly. Reserve Bank of Australia statistics reveal that in 1977 households on average owed about 33 per cent of their annual income. This rose modestly to 44 per cent by 1990, but then to 94 per cent in 2000 and 125 per cent in 2003. Arguably, this is not a statistic that should change over time. In 2003 the Reserve Bank of Australia issued an analysis of what it considered to be the dangerously high level of household debt and warned that increases beyond the level at the time would probably stall the economy (RBA, 2003). Four years later it had risen to over 160 per cent and the economy did stall. It now sits above 184 per cent.

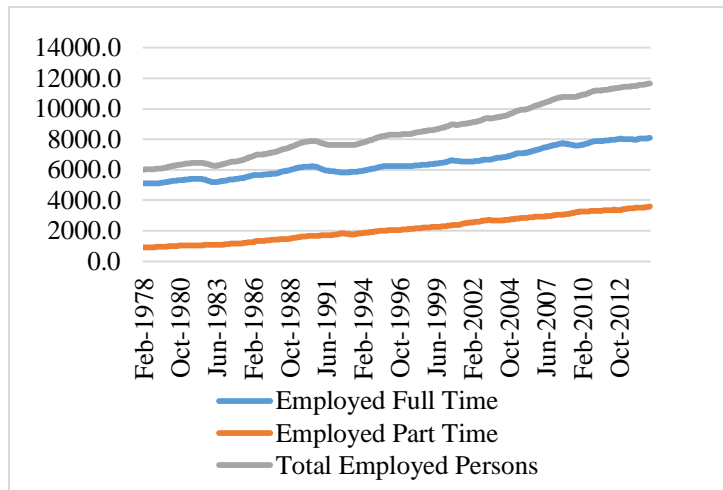
The significance of these trends for real estate markets is that the economic foundations for capital growth that were very robust in the forty years to 1990 have weakened with recent growth based on rising

indebtedness and sale to overseas interests. On this basis, it is unlikely that the previous pattern of property growth can continue.



Source: ABS cat. 6202001

Figure 3. Labour Force Participation by Sex.



Source: ABS cat. 6202001

Figure 4. Full time and part time employment.

6. REALIGNING PROPERTY VALUE AND PRICE

The further prices stray from value, the more dysfunctional the result for the community. The necessity for double incomes, rising debt and faltering employment signal more than economic correction. Warren and Tyagi (2004) began their study of the problem seeking an explanation for extreme levels of household bankruptcy and discovered a raft of social dysfunctions thinly submerged by the humiliation that households experienced in not being able to support themselves. Despite having some different causes, Queensland pastoral property is also showing signs of prices that are well above their sustainable connection with the circumstances of their occupants and owners, with similar impacts on them.

The 'fundamentals' in real estate refer to the sober realities of economic value. If property prices are out of step with the 'fundamentals' then the only way forward is to adopt strategies that will realign them. Until that is achieved the victims are far more widespread than the occupants who pay rents or high mortgages, they also include the surrounding community that is denied the spending power of those occupants. It is not sustainable.

The difficulty is the general misunderstanding of the economics of high property prices. If a newspaper proclaims that property prices are moving upwards, then the community thinks that is a good sign, despite the reality being that purchasers will have heavier mortgages and tenants will be paying higher rents. Since debt repayment and rents are often paid to distant beneficiaries, these increases diminish domestic spending power for everything else, radiating a depressing influence into the local economy. Sustainable local economies therefore require strategies to pull capital growth in property back into line with other prices.

Australia has 556 local councils across the country and their main revenue is property taxes based on the rateable or unimproved value (Creighton and Hartwich, 2011). Local councils in rural and regional Australia are struggling with their operation, maintenance and development work because of a tendency for policy directions which have capped the level of ad valorem local taxes items, making local government increasingly dependent on state or federal government grants and loans. At the same time, the dilution of the connection between land values and local government rates has indirectly facilitated capital growth in land. For example, recent foreshore development in Yeppoon impacted the businesses and establishments in and around them, increasing land values (Akbar, Williams and Rolfe, 2015) but property taxes have not

been increased proportionately. Sound local government infrastructure initiatives increase land values, but the capping of land based rates and taxes not only fails to gather revenue to fund them, but contributes to further property growth which has been shown to be causing various dysfunctional outcomes.

Land taxes apply a mild discouragement to inordinate increases in capital values, which makes their capping especially unfortunate in an environment of excessive capital growth. A return to a fixed percentage of land values would strengthen local government and state revenues, while discouraging capital growth. This could contribute to more sustainable urban and regional economies.

7. CONCLUSION

Expectations of capital gains have distorted property markets away from the fundamentals of direct profitability. Over the period 1970-1990 there was a transition of focus away from yield and direct productivity to capital gains in residential markets. During this period there was evidence of social and economic factors providing sustainable support for this shift, especially the trend towards smaller double income families. However in the period from 1990 to the present, despite property investment performance continuing to rely heavily on the continuing trend in high capital gains, the evidence for its underlying support into the future is more variegated. Bursts of capital gains have been very strong, but corrections and periods of stagnation have become more prominent features. There has been a similar trend in pastoral property, though perhaps driven by different forces. In both cases the strong growth this side of 1990 has been closely associated with unsustainable increases in indebtedness. Also in both cases, the way that property is valued provides insights into the changing meaning of property to land owners.

In part, this transition has been the result of a change in the way that property is perceived. In 1960 residential property was primarily viewed in the light of the Australian dream of owner-occupation, and rural properties were typically family farms. As residences have become investments and not homes, and rural properties merely capital assets on corporate balance sheets, the focus has moved to speculative possibilities for the future, rather than productivity in the present. The time is fast approaching when the buoyancy of the last quarter of the twentieth century will be overtaken by the sober realities of the twenty first.

The technological, social and economic developments and changes of the earlier period that did support strong capital growth in property have

given way to realities that cannot support the same optimism for the future. As Australian employment contracts wage levels will have difficulty keeping pace with the trends of the second half of last century. As Australia runs out of borrowing capacity the reality of our underlying economic strength will become more obvious. While there is currently some debate over the actual extent and impact of foreign purchasers on urban and rural property, there is only so far that foreign investment can go in propping up a local property industry if the fundamentals are not sound.

Similar mechanisms may be influencing some rural values. Pastoral properties derive their value from the kilos of meat that may be sustainably produced on the property and the net value to the owner of that meat, given the farm's distance to market. If property owners have been relying on capital appreciation alone to make pastoral investments viable, and that capital appreciation is the result of rising indebtedness, the investment framework is unsustainable. Evidence is now showing this process is reaching its limit and incoming purchasers are facing considerable difficulties in operating their pastoral businesses profitably. Farm prices must find a way to return to a practical relationship with operating profits and this implies the necessity for a genuine income approach of some sort that does not rely on future capital gains for viability.

Local and regional policy has a role in this matter. Already, policy aimed at controlling the land tax burden has had the unintended effects of making the community less concerned about the shortcomings of land value inflation and simultaneously destabilising local and state government fiscal independence. This would suggest that fixing land tax rates to ensure that the land tax revenue was allowed to grow in proportion to land values, could discourage problematic capital gain in property and reduce local and state dependence on federal government.

Both in the cities and the regions, the perception of what property is, the prices that are paid for it and the amount of debt that is taken on to get it all need to be changed if they are to be sustainable.

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