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AN ANALYSIS OF NSW RURAL PROPERTY MARKET: 1990-2010

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ABSTRACT

Rural property in Australia has seen significant market resurgence over the past 3 years, with improved seasonal conditions in a number of states, improved commodity prices and a greater interest and purchase of rural land by major international corporations and investment institutions. Much of this change in perspective in relation to rural property as an asset class can be linked to the food shortage of 2007 and the subsequent interest by many countries in respect to food security.

This paper will address the total and capital return performance of a major agricultural area and compare these returns on the basis of both location of land and land use. The comparison will be used to determine if location or actual land use has a greater influence on rural property capital and income returns. This performance analysis is based on over 40,000 rural sales transactions. These transactions cover all market based rural property transactions in New South Wales, Australia for the period January 1990 to December 2010. Correlation analysis and investment performance analysis has also been carried out to determine the possible relationships between location and land use and subsequent changes in rural land capital values.

Keywords: rural property, rural land values, investment performance, capital returns, total returns.

INTRODUCTION

Rural land in Australia represents over 50% of the total land area of Australia and still plays an important role in relation to trade and overall GDP. According to the Australian Bureau of Statistics (2011) the total area of agricultural and pastoral land in Australia was 469 million hectares, with a total of 120,941 farms solely dedicated to rural land production (National Farmers Federation, 2011).

Over the 30 year period from 1974 to 2004, the average annual productivity growth in the agriculture sector of Australia was 2.8%, which was only exceeded by the telecommunications and information technology industries over the same period (Australian Government Productivity Commission, 2005). This level of growth in the agricultural sector is also evidenced by the generation of $155 billion a year in production by farms and closely related sectors. This level of production equates to 12.1% of Australian GDP (Australian Bureau Agricultural and Resource Economics, 2009).

Despite the size of this property sector, the level of productivity it generates and the contribution to exports and GDP, the focus of rural property from a property and investment sector has not been as significant as other property sectors, especially in the period from the 1980s through to 2006. In 2007, the world suffered a major food shortage due to droughts in a number of countries and the expanded use of agricultural land to produce bio fuels instead of traditional food crops. The impact of this food security issue was not an issue in major agricultural commodity exporting countries such as Australia, New Zealand and Canada, but was significant in developing countries such as Malaysia and Philippines, countries which for the first time required significant imports of rice, their staple commodity. These food shortage impacts included trade restrictions in grain commodities and panic buying of these commodities (European Commission, 2011).

A result of this food security crisis has been an increasing interest in rural commodity productivity, the importance of rural land for food production and the need to ensure food security by all governments. An additional consequence from the 2007 food shortage has been the added interest of many foreign governments, companies and individuals to buy rural land in recognised agricultural producing countries.

RURAL LAND OWNERSHIP in AUSTRALIA

All forms of agricultural production (including plantation timber) covers 61% of the Australian land mass. As at January 2011, there were 120941 farm enterprises in Australia, with the majority of these farms being located on the eastern seaboard, representing 76.8% of total Australian farm numbers. The most farm numbers are NSW (31.5%), Victoria (24.5%) and Queensland 20.8%.

Over the past 12 months there has been considerable debate and discussion in relation to the increase and level of foreign ownership of rural property in Australia (Taylor, 2009; Scopelianos, 2011; Houston and Millar, 2011; Gray and Dally, 2011). The more recent purchase of rural land in Australia has been linked to the 2007/2008 food crisis. Hassad Foods (a company owned by the Qatar government has recently increased their holding of Australian rural property with the purchase of an additional 8,000 hectares of grazing land in Victoria. Although not the largest foreign owner of rural land in Australia, this recent purchase by Hassad Foods brings their total Australian rural land holding to over 140,000 hectares, more than twice the 65,000 hectares of arable land available in Qatar (Houston and Millar, 2011).

This debate in relation to rural land ownership in Australia has led to the most recent survey of agricultural business and farm ownership by the Australian Bureau of Statistics. In this ABS (2011) report it states that 99% of agricultural businesses and farms were entirely Australian owned, with 89% of total rural land in Australia also being entirely Australian owned and 91% of all agricultural water licences also being entirely Australian owned (ABS, 2011). This report also confirmed that the highest percentage of foreign ownership of Australian agricultural businesses and farms were in the mushroom and vegetable growing industries, dairying, poultry, grapes and beef cattle, but all with foreign ownership between 2 to 4% (ABS, 2011).

Although the level of foreign ownership is not significant as a total percentage of the Australian agricultural land area, the majority of this ownership has occurred over the past ten years and is increasing, as Australian rural property is seen as an investment market by foreign institutions and companies. The question that can be asked in relation to this issue is "has this increased influence of foreign investors in agricultural land led to a significant increase in rural land prices?"

AUSTRALIAN RURAL PROPERTY INVESTMENT

The past decade has seen a significant increase in the level of institutional and corporate ownership of rural property in Australia. Rural land is now being considered as a viable investment asset for both Australian and international investment companies. Over the past two years the more significant investments have been IFFCO, a United Arab Emirates company, purchase of 20% of the Australian Agricultural Company, the Terra Firma purchase of beef cattle property for $425 million and the Hassad Food purchases totalling $100 million.

According to Franklin and Vasek (2010) the Foreign Investment Review Board approved the sale of agricultural land and agricultural companies to the value of AUD$2.8 billion to buyers from US, UK, Japan, Canada, Netherlands and UAE in 2008/2009. This excluded individual rural property purchases to foreign corporate and institutions, for the same period, to the value of AUD$327 million that were below the FIRB threshold of AUD$231 million for approval purposes. In 2009 Macquarie group and Terra Firma alone spent over AUD$1.3 billion on Australian cattle properties (Eves, 2010a).

There are now a number of listed and unlisted property trusts, which include an exposure to rural property, particularly in the US, as well as funds that are constructed only from rural property. In Australia the Macquarie Group Rural trust has invested in excess of AUD$550 million in rural property and Rural Funds Management has rural property to the value of AUD$300 million under management (Eves, 2010a).

Although there has been a substantial increase in the level and amount of institutional activity in the Australian rural property market, this has not been reflected in increased land prices across all rural property sectors (Eves, 2010b). Studies by Eves (1998, 2004, 2005, 2010), Eves and Painter (2008) and Eves and Nartea (2008), have critically investigated the investment performance of Australian rural property, however this investigation has been limited to New South Wales. These studies have shown that rural property in NSW is an inflation hedge, has provided significant capital growth and the investment performance has been negatively correlated to shares and bonds and in a number of cases negatively correlated to the traditional property investment sectors.

Similar rural property research trends are also evident in the USA, with Kaplan (1985), Lins et al (1992), Rubens and Webb (1995) and Eves and Newell (2000, 2008) and Eves and Painter (2007, 2008) investigating the performance of US farmland in an investment context, with these studies also showing that rural property can lower the risk and increase the return of a diversified investment portfolio. The analysis of the UK rural land market, from an investment performance perspective is also limited, with studies by Eves and Newell (2006) and the RICS currently providing data on rural land prices and investment performance. Again, the UK analysis also confirms the diversification benefits of rural land as an investment asset.

RESEARCH PURPOSES AND OBJECTIVES

The data for this research and the on-going update of this NSW Rural Land Investment Performance Index is based on all rural property sales transactions that have taken place during the period 1990-2010. This data base now in excess of 40,000 sales transactions and NSW accounts for 31% of all farms in Australia. The performance of rural property in NSW over this 20 year time period can also be considered as a reliable indication of rural price trends across Australia. With this comprehensive rural sales transaction data base it is now possible to:

- Rigorously and objectively assess the capital return investment performance of NSW rural property for the period 1990 to 2010.
- Compare the performance of NSW rural land on both a regional location basis and on a land use basis.
- Compare the total return performance of NSW rural property based on ABARE broad land use categories
- Determine if the more recent foreign interest in Australian rural land has influenced rural land prices in NSW.

RESEARCH METHODOLOGY

Rural land sales database: 1990-2010

This NSW rural property investment performance index and regional sub-indices have been constructed from data provided by the commercially available RP Data computer database. RP Data is a commercial computer database of all sales transactions and land title transfers that occur throughout NSW, with all sales recorded on an LGA basis. The computer database information is provided from completed notices of transfer which have to be provided to the Valuer Generals Department, the respective LGAs and Land Titles Office whenever land is transferred, sold or resumed. This computer database allows sales and transfers to be sorted on a land use basis, area, zoning, price and date of transfer.

The NSW rural property component within the RP Data database has expanded considerably since 1990. From 1985-89, rural sales are available for 21 NSW rural LGAs; from 1990, 113 rural LGAs in NSW reported all rural sales into the RP Data computer database. With the amalgamation of many of the smaller LGAs in rural NSW, the number of LGAs has declined to 97 rural based council areas. For the period 1990-2010, over 40,000 (including a number of smaller rural sales of less than 40 hectares) NSW rural property sales are available for analysis. The integrity and quality of the RP Data database compares favourably with the equivalent US NCREIF farmland database, annually involving 1,500 US rural properties valued at US$4 billion

Rural property database: quality control/audit

Three computer and manual sorts have been conducted to audit and improve the integrity and data quality of the RP Data database information; namely:

- Rural sales within and between government departments have been removed.
- "Same name" property transfers were examined, and eliminated if the price per hectare was significantly below the average price per hectare for that particular period.
- All family sales, no value sales and transfers initiated by the Family Law Court were excluded.
- All sales less than 40 hectares have been excluded from the analysis but do provide an indication of the extent of larger property subdivision for rural/residential development.

All of the above quality control audits ensure the continued integrity and reliability of this rural property database.

Rural property investment performance indices: 1990-2008

Based on these 40,000 rural property sales from 97 NSW LGAs over the period 1990-2010, a rural property investment performance index for NSW has been developed. Using $ per hectare as the benchmarking investment performance criteria and December 1990 benchmarked to an index value of 100, a semi-annual and annual rural property investment performance index has been established. These indices cover the main agricultural regions of NSW and also breaks down the capital return index on a land use basis (Coastal grazing, tableland grazing, Mixed farming and Pastoral grazing). With the addition of ABARE farm income data, the data base also allows the total return performance to be calculated for High Rainfall farms, mixed farms and pastoral properties. This total return analysis also compares the performance of the average NSW farm to the top 20% of NSW farms.

Database Characteristics

This rural property database is substantial, accounting for the following percentages of total Australian agricultural production over the period 1990-2010: wheat (36%), wool (34%), coarse grains (25%), cattle (24%), milk (12%) and oilseeds (58%) (ABARE, 2008). This further reflects the overall integrity, importance and quality of this NSW rural property database. As the majority of the eastern states in Australia have similar agricultural systems and also rely on the same international and national commodity prices, as well as very similar input costs, the underlying trends in the NSW rural property market would be indicative of rural property price trends in other States of Australia, particulalrly the eastern states.

RESULTS

The analysis of the NSW rural property market has been carried out on a capital return basis and a total return for the three main ABARE land use categories. The capital return analysis covers the seven (7) main geographic regions of NSW, as well as the four main geographic land uses being coastal grazing, tableland grazing, mixed farming and pastoral grazing.

NSW Rural Land Capital Return

The composite average annual capital return and the weighted average annual capital return for NSW rural property over the past 21 years is shown in Table 1. This table shows that over the period 1990-2010, the average annual capital growth for rural property in NSW has been 4.52%. However, the capital return across a number of rural farms in NSW has been considerably lower, and in a number of regions, negative over the past 12 months to three years. This has particularly been the case in the drought affected mixed farming regions of NSW. The higher rainfall grazing regions did not have the same fall in average farm prices over the same period.

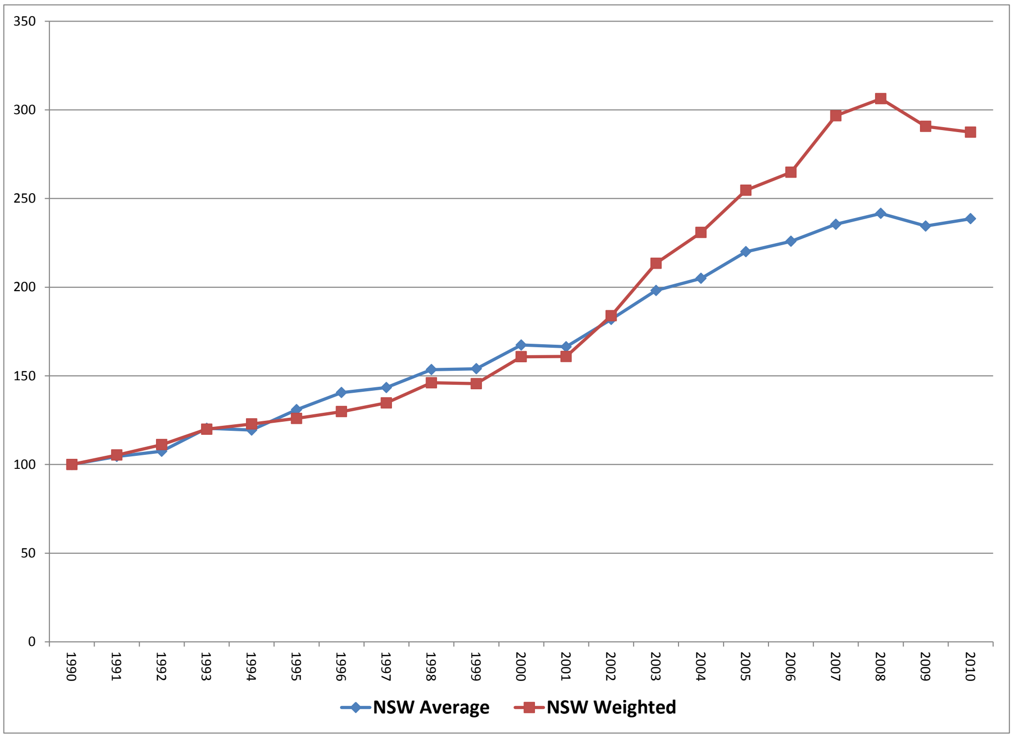
This is also evidenced by the results of the weighted sales performance over the period. The weighted analysis is based on the percentage sales volume each land use type contributes to the total NSW rural property sales transaction each year. Over the period of the study, mixed farming has contributed between 50 to 60% of annual sales transactions, with the pastoral grazing areas only representing 7 to 10% of all sales volume each year. The negative growth in mixed farming prices across most of NSW in 2009 and 2010 has been the main cause of the negative return of -1.12% for NSW rural land on a weighted basis. However, across the full 1990-2010 period, the NSW weighted average annual capital return has been 5.55%, which is higher than the 4.52% on an unweighted basis and was primarily driven by the significant increases in the price of mixed farming land from 2001 to 2005. Over the period 2000 to 2010, the average annual return for NSW rural property on a weighted basis was 6.19%, well above the unweighted return of only 3.68%

Figure 1 highlights the difference between the weighted and unweighted capital return for NSW rural property, particularly over the period 2000 to 2008. In 2001 the two indices were similar at 166 and 161 respectively. However, in 2010 the weighted index has increased to 306, while the unweighted index peaked in 2010 at 242. Both indices declined from 2008 to 2009, with the unweighted index improving in 2010 due to the increasing land prices and subsequent positive capital returns in the pastoral regions of NSW. The weighted index showed a decrease in 2010, due to the greater proportion of rural land sales in the mixed farming regions, with a number of these regions recording negative growth in 2010.

Table 1: NSW Rural Land Capital returns: 1990-2010

Period	NSW Average Capital return (%)	NSW Weighted Average Capital Return (%)
Last 12 months	1.75	-1.12
Last 3 years	0.47	-1.00
Last 5 years	1.67	2.61
Last 10 Years	3.68	6.19
1990-2010	4.52	5.55

Figure 1: NSW Rural Land Average Annual Capital Return Index: 1990-2010



NSW Regional Capital Return Performance

On a geographic regional basis, the average annual capital return for rural property has seen some significant variation from year to year over the study period. Table 2 shows the capital return performance breakdown over the 1990-2010 period, on a geographic region basis. This table shows that over the last 12 months all the regions that are predominately mixed farming (North West, Central West, South West, Riverina/Murray) all recorded negative capital growth. However, all grazing regions recorded an increase in the average price of land ranging from 2.43% in the South East to 10.9% in the North Coast and Hunter regions. The lowest performing NSW region other the last 12 months has been the South West region with a negative capital return of 2.88%.

Table 2: NSW Rural Regions: Average Annual Capital Return: 1990-2010

	North West	North Coast/ Hunter	Central West	South East	South West	Murray/ Riverina	Far West
Last 12 months	-0.06	10.9	-0.24	2.43	-2.88	-2.66	4.80
Last 3 years	1.66	2.46	5.16	-0.44	-2.10	-2.60	-0.84
Last 5 years	3.73	3.87	1.70	2.30	0.61	1.18	-1.72
Last 10 Years	4.77	5.64	4.95	3.47	3.35	3.01	0.54
1990-2010	4.62	4.05	4.76	4.41	3.91	4.45	5.43

Over the period 2001 to 2010, rural land in the north and central areas of the state has performed better than the southern regions. During this period, the North West, North Coast/Hunter and Central west have recorded an average annual capital return of 4.77%, 5.64% and 4.95% respectively. Over the same period the best performing southern region of NSW was the South East, with an average annual capital return of 3.47%.

Based on the full study period of 1990-2010, the best performing NSW rural regions have been the mixed farming areas of north and central NSW, with the highest average annual capital return being the Far West region at 5.43%, but with a volatility of 28.42%. In comparison, the volatility for the other regions ranged from 4.96% (North West) to 8.27% (Riverina/Murray).

NSW Land Use Capital Return Performance

Table 3: NSW Rural Land Use: Average Annual Capital Return: 1990-2010

	Coastal grazing	Tableland grazing	Mixed Farming	Pastoral grazing
Last 12 months	10.47	16.06	-11.16	3.19
Last 3 years	-3.70	1.18	-0.90	2.15
Last 5 years	4.66	9.26	0.45	-1.60
Last 10 Years	6.65	10.60	5.44	1.00

1990-2010	5.22	7.35	5.50	3.10

Table 3 shows the capital return performance for rural property in NSW based on major land use. Again, this table shows that over the past 12 months the mixed farming areas have shown a significant fall in rural property prices, recording a negative return of 11.16%. Tableland grazing property recorded a capital return of 16.06% during 2010. The other grazing land uses also recorded positive capital growth during 2010. Tableland grazing has also shown the best capital return over the full study period at an average annual return of 7.35%. The average annual return from mixed farming for the period 1990-2010, has only been 5.50%, but this lower return has been influenced by the negative returns for the period 2008 to 2010. The more recent purchase of larger grazing blocks by overseas investors has seen an increase in capital returns over the past three years, but this land use still has the lowest average annual capital return of 3.10% over the full study period.

NSW Rural Property Total Return Performance

ABARE conducts an annual survey of Australian farmers and produces a summary of income and expenditure for a range of agricultural production types across all States of Australia. This ABARE data has been analysed to determine an average income per hectare for the three land use classifications of High Rainfall, Mixed Farming and Pastoral Grazing in NSW. This $ rate per hectare allows an income return for the average NSW farmer to be determined. These calculations also allow the total returns for these specific NSW geographic and land use sectors to be determined. In addition to the total return analysis for the NSW average farmer, a return for the top 20% of NSW farmers in each of the defined NSW rural property sectors has been determined. This greater income return has been based on both the ABARE (2010) and Australian Government Productivity Commission (2005) figures that state that this sector of the farm production industry generates over 80% of total farm production and achieves an income return between 3.5 and 4 times the NSW average farmer.

Table 4: NSW Rural Land Use: Average Farmer: Average Annual Total Return: 1990-2010

	High Rainfall (%)	Mixed Farming (%)	Pastoral (%)
Last 12 months	7.90	-9.81	3.89
Last 3 years	0.28	0.34	2.50
Last 5 years	7.68	0.52	-1.86
Last 10 Years	9.25	8.00	0.85
1990-2010	7.06	8.37	3.34

Tables 4 and 5, when compared to the capital returns for NSW rural property, confirms that the majority of NSW rural property average annual total return is generated by increasing land prices and not farm income. The average NSW farmer has only achieved an income return over the period 1990-2010 of 2.97% (weighted), with the farmers in the high rainfall areas showing an average annual income return of 3.71% and those in the pastoral regions only achieving an average annual income return of 0.29%.

However, Table 5 highlights the significant difference between the average NSW farmer and the top 20% of NSW farmers in relation to average annual income return. With the addition of the higher income returns, the top 20% of NSW farmers have achieved total returns over the study period of 16.86% (High Rainfall); 16.48% (Mixed Farming) and 4.62% (Pastoral Grazing). The poor income returns generated by mixed farming properties and pastoral properties during the drought years from 2003 to 2008 have had a significant impact on total returns for both the average and the top 20% of NSW farmers in this classification.

Table 5: **NSW Rural Land Use: Top 20% Farmer: Average Annual Total Return: 1990-2010**

	High Rainfall (%)	Mixed Farming (%)	Pastoral (%)
Last 12 months	9.76	-6.27	5.73
Last 3 years	1.95	3.60	3.63
Last 5 years	17.83	2.97	-0.84
Last 10 Years	21.34	15.85	1.76
1990-2010	16.86	16.48	4.62

CONCLUSIONS

The seasonality of rural production in Australia is being reflected in both the capital and total returns of this property sector. The past three years has seen a significant decline in the capital value of mixed farming properties in the mixed farming regions of NSW, especially in those southern cropping areas. The impact of foreign investment in the North West and Central West regions since 2008 has seen these mixed farming areas still recording significant capital growth over the past three years and only a slight decline in property prices during 2010.

Higher rainfall areas in the NSW Tablelands have been the better performing farms in relation to capital growth over the past 3 to 5 years. Coastal grazing properties achieved the highest capital growth in 2010, with a portion of this growth reflecting competing urban land use rather than pure agricultural growth.

Major foreign investors have purchased large pastoral holdings in NSW over the past two years and this is being reflected in the improving capital returns for pastoral land, particularly over the period 2008 to 2010, with sales activity in 2011 indicating that this trend will continue in the short term. The increase in foreign ownership of rural land in NSW, over the past 12 months should also see an overall increase in rural land prices in the next two years, particularly in the tablelands and north west regions of NSW. Over the past 2 years there has also been an increasing trend for the larger mining companies to purchase farms adjoining their mine operation areas. This is also likely to result in increasing rural land prices.

The rural property analysis for NSW continues to show the very significant variation in total returns based on the management and skill level of the farm operator. The top 20% of NSW rural producers in the High Rainfall and Mixed Farming regions are achieving average annual total returns that are more than double the average farmer in the same locations. These high returns underpin the importance of these high performing rural properties as targets for both national and international investment institutions.

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