DEPARTMENT OF TREASURY

AFFORDABLE HOUSING IMPLEMENTATION GROUP WORKING PAPER

"DO HOUSE PRICES FALL OVER TIME?"

Policy Coordination and Development Division

ACT Treasury

August 2008

INTRODUCTION

The ACT Government is implementing a comprehensive and innovative *Affordable Housing Action Plan* to ensure the dream of home ownership can continue to become a reality for Canberrans.

One of the 62 affordable housing initiatives the Government is implementing is the Land Rent Scheme (the Scheme). The Scheme enables an aspiring homeowner to rent land rather than purchase land, and gives the homeowner the flexibility of purchasing the land whenever they are ready, able and desired to do so.

This is possible because of the leasehold system in the Territory. Under this system, people seeking access to land currently payout or commute the value of the Crown lease upfront. Usually, this is financed through borrowing. Under the land rent scheme, the households do not need to payout the lease value, and as such, do not need to borrow for the land.

The Scheme improves housing affordability and allows more people to become homeowners, and sooner than otherwise may have been the case, by reducing both the entry costs and mortgage repayments.

The Scheme has been well received by industry, households and independent reviewers.

However, some concerns have been raised to the effect that under the scheme, households will have an asset decreasing in value, while the Government retains an asset increasing in value. Potential for negative equity has also been raised as a concern.

Residential property (house and land) prices are subject to movements depending on the conditions in the market, in particular the balance between supply and demand. Information on such movements is readily available from a range of sources.

The question is, whether the two components of residential property (house and land) move asymmetrically over time. However, information on movements in land and house components is not readily available. For example, the ABS publishes price data for established houses (i.e., including land) and for project homes, but not for land.

Treasury has undertaken a longitudinal study and cross-sectional study of house and land price movements in the ACT, and both studies show that in the short run both land and house prices tend to rise over time. This paper presents the results of these studies.

LONGITUDINAL STUDY OF HOUSE AND LAND PRICES

Treasury has undertaken a longitudinal study of house and land price movements in the ACT which shows that in the both land and house prices tend to rise over time. This paper presents the methodology and findings of the study.

Methodology

The methodology involved tracking the re-sale price of new house and land purchases. In order to conduct a longitudinal study of house and land prices in the ACT over time, data for newly established dwellings was collected. A random sample of about 60 vacant blocks of land in the ACT mostly released in 2000-01 was selected.

The sample was limited to the most recent decade so as to minimise the extent to which major alterations and additions are likely to have been made to the house[1]. Given the volume of the land release, the sample size is considered reasonable.

These blocks were then tracked over time, where the most recent resale data was analysed for the purpose of this study. The data for the unimproved value of land was used as an approximation to the market value at the time of sale. For this data sample, we are able to separate out growth in both the house and the land components over a longer time period.

Results

The results of the longitudinal study show that both the land and building components tend to increase in value over time. For the longitudinal study, a sample of land and new home purchases at the beginning of this decade (i.e., around 2000-01) were tracked, and the most recent subsequent re-sales were analysed, along with the unimproved land value used as an approximation to the market price at the time of the sale.

The results based on a random sample[2] of about 60 new properties that were subsequently re-sold show that the average annual growth in the land component is around 16 per cent while the average annual growth in the building component is around 10 per cent. The results from this longitudinal analysis show that while the average growth in land value is greater than the average growth in house value — the rate of growth in the house component is significant. The results for this analysis have been attached at Appendix A.

These results provide clear indication that both the land house and the house components contribute to the nominal growth in residential property prices.

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[1] Major house improvements may influence the apparent movement in house prices. However, this does not exclude the possibility of landscaping and gardening which may not be included in the building costs but improves the value of the property (building) for the benefit of the owners.

[2] This sample is about 17 percent of the population, which is significant.

CROSS-SECTIONAL STUDY OF HOUSE AND LAND PRICES

The results from the longitudinal study — that both the land and building components tend to increase in value over time — are consistent with results from a cross-sectional study.

Values of houses are not published separately but can be derived from the data on unimproved land values and price data for established houses.

The data in the table and chart below show that house and land prices have both increased over time, and that growth in house prices constitutes around 45 per cent of the increase in house and land prices.

The data also show that the house component as a proportion of the total house and land value has been reasonably constant in recent years.

Table: Canberra Median House and Land Values, 2001-02 to 2006-07

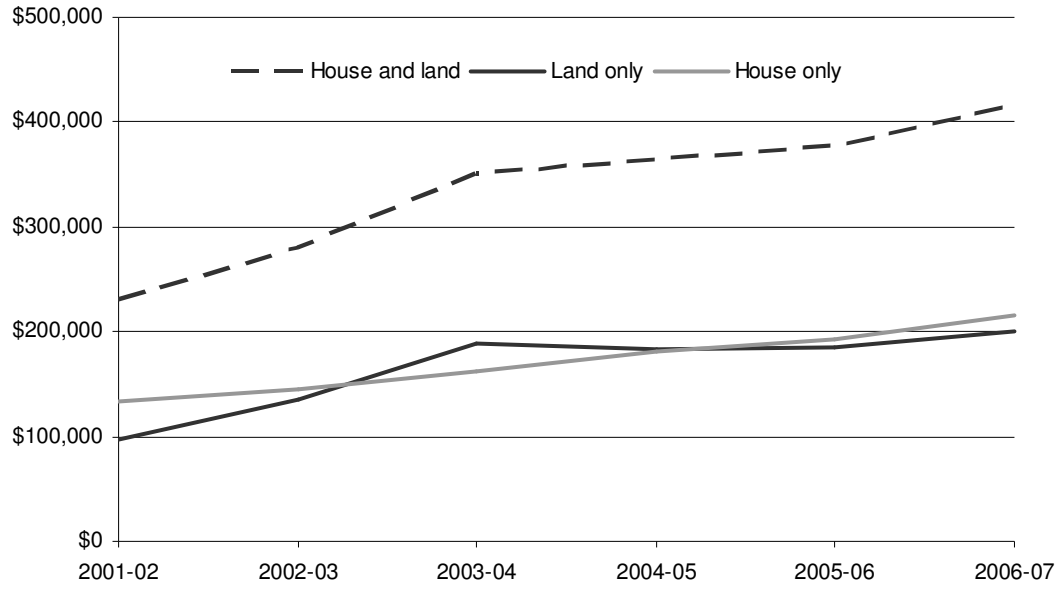
	House and land [1]	*Land only* [2]	*House only* [3]	*House proportion*
	$	*$*	*$*	*%*
2001-02	230,000	97,000	133,000	57.8
2002-03	280,000	135,000	145,000	51.8
2003-04	352,000	189,000	163,000	46.3
2004-05	365,000	183,000	182,000	49.9
2005-06	378,000	185,000	193,000	51.1
2006-07	416,000	200,000	216,000	51.9
Change in value between 2001-02 and 2006-07	186,000	103,000	83,000	44.6

(1) The 'house and land' values are based on standard residential house and land sales data from the ACT Planning and Land Authority.

(2) The 'land only' value is the median unimproved property value for standard residential blocks and is sourced from the ACT Treasury Revenue System.

(3) The 'house only' values are derived as the difference between the median 'house and land' value and the 'land only' value.

Chart: Canberra Median House and Land Values, 2001-02 to 2006-07



Source: ACT Planning and Land Authority and ACT Revenue

CONCLUSION

The results from the longitudinal study show that, over the study period, both the land and the house components contribute to the observed growth in residential property prices. On average over the study period, property prices rose by 50 per cent —with the house component accounting for a little over a half (28 percentage points) of this increase.

The results from the cross-sectional study are broadly consistent with the results from the longitudinal study. The property price increase over the cross-sectional study period was 81 per cent — with the house component accounting for a little under a half (36 percentage points) of this increase.

The study results show that the price of both the land and the house component rise over time.

The contribution from the house component was found to be slightly above 50 per cent in the longitudinal study and slightly below 50 per cent in the cross sectional study.

In any case, there is no evidence to suggest that, under the Land Rent Scheme, households will have an asset decreasing in value.

APPENDIX A: Results for Longitudinal Study of new House and Land in the ACT since 2000-01

		FIRST SALE			MOST RECENT SALE			AVERAGE ANNUAL GROWTH			TOTAL GROWTH	
	Suburb	Unimproved Land Value[1]	Implied House Value[2]	Total Property Value	Improved Property Value	Unimproved Land Value[3]	Implied Building Value	Years	Land	Building	Land	Building
		($)	($)	($)	($)	($)	($)		(%)	(%)	(%)	(%)
1	Dunlop	55,900	130,390	186,290	312,000	108,000	204,000	4.0	17.9%	11.8%	93.2%	56.5%
2	Dunlop	77,000	145,950	222,950	315,000	110,000	205,000	2.0	19.5%	18.5%	42.9%	40.5%
3	Gungahlin	95,000	186,200	281,200	555,000	178,000	377,000	5.0	13.4%	15.2%	87.4%	102.5%
4	Amaroo	97,000	196,000	293,000	492,500	212,000	280,500	5.0	16.9%	7.4%	118.6%	43.1%
5	Conder	77,000	219,000	296,000	376,000	117,000	259,000	1.5	32.2%	11.8%	51.9%	18.3%
6	Bruce	90,000	170,000	260,000	379,000	200,000	179,000	3.0	30.5%	1.7%	122.2%	5.3%
7	Gordon	76,000	131,500	207,500	328,000	141,000	187,000	2.5	28.0%	15.1%	85.5%	42.2%
8	Dunlop	82,000	203,000	285,000	375,000	126,000	249,000	4.0	11.3%	5.2%	53.7%	22.7%
9	Amaroo	82,600	182,350	264,950	332,000	105,000	227,000	1.0	27.1%	24.5%	27.1%	24.5%
10	Nicholls	151,200	248,800	400,000	820,000	243,000	577,000	5.0	10.0%	18.3%	60.7%	131.9%
11	Dunlop	45,000	106,000	151,000	300,000	131,000	169,000	5.0	23.8%	9.8%	191.1%	59.4%
12	Conder	82,000	249,000	331,000	410,000	134,000	276,000	2.0	27.8%	5.3%	63.4%	10.8%
13	Amaroo	94,500	210,450	304,950	525,000	215,000	310,000	6.0	14.7%	6.7%	127.5%	47.3%
14	Nicholls	74,000	171,950	245,950	432,000	143,000	289,000	5.5	12.7%	9.9%	93.2%	68.1%
15	Amaroo	77,500	302,500	380,000	424,000	100,000	324,000	1.0	29.0%	7.1%	29.0%	7.1%
16	Dunlop	68,000	116,000	184,000	295,000	105,000	190,000	3.0	15.6%	17.9%	54.4%	63.8%
17	Gungahlin	85,000	250,000	335,000	445,000	153,000	292,000	1.0	80.0%	16.8%	80.0%	16.8%
18	Banks	91,000	304,100	395,100	530,000	150,000	380,000	2.5	22.1%	9.3%	64.8%	25.0%
19	Gungahlin	143,000	234,000	377,000	437,000	189,000	248,000	5.0	5.7%	1.2%	32.2%	6.0%
20	Amaroo	80,500	175,500	256,000	477,500	188,000	289,500	6.0	15.2%	8.7%	133.5%	65.0%
21	Amaroo	94,500	210,450	304,950	525,000	215,000	310,000	6.0	14.7%	6.7%	127.5%	47.3%
22	Dunlop	82,000	185,950	267,950	365,000	132,000	233,000	4.0	12.6%	5.8%	61.0%	25.3%
23	Gordon	185,000	272,400	457,400	477,000	187,000	290,000	2.5	0.4%	2.5%	1.1%	6.5%

24	Amaroo	98,000	198,850	296,850	480,000	179,000	301,000	4.5	14.3%	9.7%	82.7%	51.4%
25	Dunlop	85,000	304,950	389,950	498,000	160,000	338,000	4.0	17.1%	2.6%	88.2%	10.8%
26	Dunlop	83,000	137,000	220,000	375,000	138,000	237,000	5.0	10.7%	11.6%	66.3%	73.0%
27	Dunlop	41,000	115,000	156,000	315,000	97,000	218,000	5.0	18.8%	13.6%	136.6%	89.6%
28	Dunlop	76,000	129,200	205,200	389,950	132,000	257,950	5.0	11.7%	14.8%	73.7%	99.7%
29	Nicholls	84,000	155,950	239,950	297,500	90,000	207,500	1.0	7.1%	33.1%	7.1%	33.1%
30	Nicholls	101,000	331,480	432,480	732,000	191,000	541,000	6.0	11.2%	8.5%	89.1%	63.2%
31	Conder	82,000	223,000	305,000	525,000	195,000	330,000	5.0	18.9%	8.2%	137.8%	48.0%
32	Dunlop	60,100	119,900	180,000	365,000	126,000	239,000	6.0	13.1%	12.2%	109.7%	99.3%
33	Banks	82,000	283,000	365,000	435,000	110,000	325,000	2.5	12.5%	5.7%	34.1%	14.8%
34	Amaroo	58,000	120,000	178,000	430,000	137,000	293,000	6.5	14.1%	14.7%	136.2%	144.2%
35	Dunlop	61,200	118,800	180,000	295,000	114,000	181,000	3.0	23.0%	15.1%	86.3%	52.4%
36	Nicholls	140,000	344,000	484,000	532,000	150,000	382,000	1.0	7.1%	11.0%	7.1%	11.0%
37	Bruce	110,000	187,800	297,800	495,000	233,000	262,000	3.5	23.9%	10.0%	111.8%	39.5%
38	Dunlop	90,000	260,000	350,000	425,000	130,000	295,000	3.5	11.1%	3.7%	44.4%	13.5%
39	Gungahlin	160,000	224,000	384,000	400,000	172,000	228,000	2.0	3.7%	0.9%	7.5%	1.8%
40	Dunlop	50,000	95,000	145,000	365,000	127,000	238,000	3.5	30.5%	30.0%	154.0%	150.5%
41	Palmerston	46,000	204,000	250,000	352,000	108,000	244,000	4.0	23.8%	4.6%	134.8%	19.6%
42	Dunlop	66,000	209,000	275,000	511,000	200,000	311,000	6.5	18.6%	6.3%	203.0%	48.8%
43	Gungahlin	85,000	221,400	306,400	445,000	163,000	282,000	5.0	13.9%	5.0%	91.8%	27.4%
44	Amaroo	76,400	182,600	259,000	322,000	92,000	230,000	1.0	20.4%	26.0%	20.4%	26.0%
45	Amaroo	65,000	195,000	260,000	400,000	157,000	243,000	4.0	24.7%	5.7%	141.5%	24.6%
46	Amaroo	88,000	199,000	287,000	500,000	158,000	342,000	5.0	12.4%	11.4%	79.5%	71.9%
47	Dunlop	83,000	102,000	185,000	287,100	120,000	167,100	2.0	20.2%	28.0%	44.6%	63.8%
48	Dunlop	47,000	128,000	175,000	330,000	122,000	208,000	5.0	21.0%	10.2%	159.6%	62.5%
49	Amaroo	79,000	174,000	253,000	389,000	151,000	238,000	2.0	38.3%	17.0%	91.1%	36.8%
50	Amaroo	58,000	145,000	203,000	374,300	137,000	237,300	4.0	24.0%	13.1%	136.2%	63.7%
51	Palmerston	58,500	208,500	267,000	405,000	113,000	292,000	5.0	14.1%	7.0%	93.2%	40.0%
52	Banks	170,000	215,000	385,000	465,000	173,000	292,000	3.5	0.5%	9.1%	1.8%	35.8%
53	Dunlop	85,000	264,500	349,500	409,950	139,000	270,950	3.0	17.8%	0.8%	63.5%	2.4%

54	Gungahlin	92,000	196,500	288,500	380,000	136,000	244,000	2.0	21.6%	11.4%	47.8%	24.2%
55	Dunlop	142,500	307,050	449,550	508,113	184,000	324,113	2.0	13.6%	2.7%	29.1%	5.6%
56	Dunlop	96,000	223,295	319,295	590,000	140,000	450,000	5.0	7.8%	15.0%	45.8%	101.5%
57	Gungahlin	64,000	135,550	199,550	350,000	145,000	205,000	4.0	22.7%	10.9%	126.6%	51.2%
58	Banks	100,000	180,000	280,000	403,000	119,000	284,000	2.0	9.1%	25.6%	19.0%	57.8%
59	Gordon	79,000	116,000	195,000	315,000	122,000	193,000	3.0	15.6%	18.5%	54.4%	66.4%
	AVERAGE	**86,905**	**195,861**	**282,766**	**424,032**	**148,169**	**275,863**	**3.7**	**15.6%**	**9.7%**	**70.5%**	**40.8%**

(1) The actual cost of land (market value).

(2) Implied house value is equal to the improved property value minus the unimproved land value.

(3) As estimated by the Australian Valuation Office.