

# Australian Bureau of Statistics

## FEATURE ARTICLE: VALUING LAND AND DWELLINGS OWNED BY HOUSEHOLDS

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## INTRODUCTION

ABS has upgraded the estimates of the value of land which are published as part of the national and sectoral balance sheets within the annual **Australian System of National Accounts** (ASNA) (cat. no. 5204.0) release. For residential land, the revised estimates are based on data on the value of the residential dwelling stock, which includes the value of the land, compiled by the Reserve Bank of Australia (RBA). Previously differing estimates of the value of land and dwellings have been published by ABS and the RBA. The estimates differed because of differences in source data and methodology. With the release of this edition of the ASNA the ABS estimates are consistent with those published by the RBA.

For other types of land (rural, commercial and government land) some improvements in the application of existing data sources have been made.

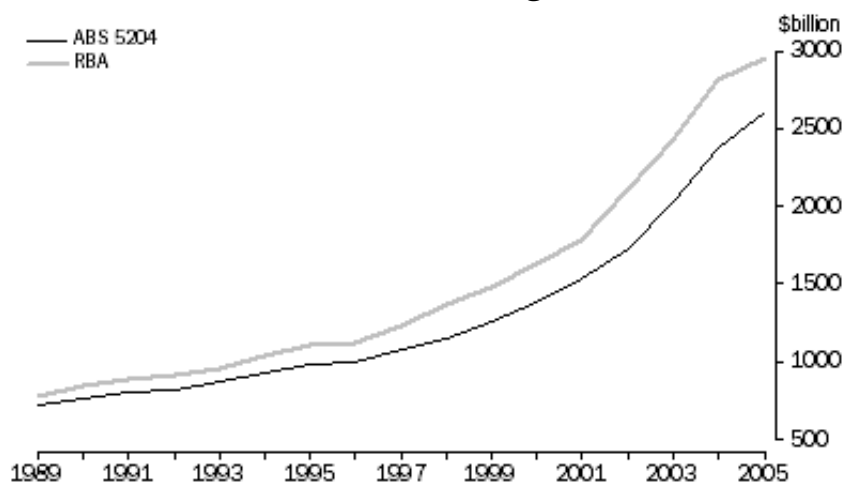
This article describes the alternative approaches to estimating the value of land, notes problems with the source data previously used by ABS, and gives reasons for adopting the RBA-based estimates for residential land.

## RESIDENTIAL LAND: FORMER ABS METHODOLOGY AND ESTIMATES

ABS previously estimated the value of land and the value of dwellings independently. Estimates of the value of land were sourced from state government Valuers-General. The data, classified into residential, commercial and rural categories, were recorded in the sectoral balance sheets, and were also published separately in Table 83 (Value of land, Land use by state) of the ASNA.

In the 2004-05 ASNA, ABS estimates of the value of land were revised, increasing the proportion of land allocated to the household sector, and increasing the economic lives of some categories of dwellings. The effect of the revisions was to increase the total value of dwellings and land owned by the household sector. However, when commercial and rural land are excluded, the revised estimates were still significantly below those published by the RBA in table B20 of its monthly Reserve Bank of Australia Bulletin, and a divergent trend over time is evident (see graph below).

### Residential dwellings and land, Stock at end of June (all sectors)



In principle, Valuers-General value land at market prices. In practice there are a number of difficulties in applying observed prices to the whole of the land stock. An example of the difficulties faced by Valuers-General in all jurisdictions

in this regard is illustrated by a recent report by the NSW Ombudsman 'Improving the quality of land valuations issued by the Valuer General' presented to the NSW Parliament in October 2005. This report pointed to systematic under-valuation of land in NSW. That under-valuation is reflected in ABS estimates of the value of land based on that source. The probable under-estimation of the value of land in all jurisdictions, in large part, accounted for the discrepancy between the previous estimates released by ABS and the implied value of land published by RBA.

The points below summarise some relevant findings of the NSW report:

- best evidence of market changes comes from sales closest to 1 July. In a sample of 39 districts, over 40 percent had not adjusted sales for time and a further 20 percent adjusted 10 percent of sales or less.
- a number of practices departed from basic methodology and resulted in values being more conservative (i.e. lower) than the benchmark valuations would otherwise indicate. One regional valuer encouraged contractors to ensure results were as close to 90 percent of market valuation as possible. The Ombudsman said that while this practice was defensible in some circumstances (e.g. in areas with low turnover) it undermined the consistency of the valuation process across the state.
- in an investigation of valuation outcomes in 2004, in the vast majority of cases sampled, the issued valuations were found to be less than the market-recognised value. That is, there was undervaluation rather than over valuation.
- Valuers-General use a system of mass valuation, with land divided into components with similar characteristics. Sales of properties within each component are used to determine the values of the other properties. Best international practice suggests that baseline data should be up-dated every six years. However, since NSW had gone 16 years without a systematic review and correction of the baseline valuation data, the Ombudsman found there had been a deterioration in quality of baseline data causing distortion in the relativity of values.

ABS expects these types of difficulties exist to some extent in the Valuers-General data for all states and territories.

## **RBA ESTIMATES OF RESIDENTIAL LAND AND DWELLINGS**

From 1998 to the present RBA has estimated, on a quarterly basis, the combined value of residential land and the dwellings owned by the household sector by applying sales data supplied by a private sector contractor to ABS Census of Population and Housing data on the number of dwellings. The sales data provide broad geographical coverage, encompassing both metropolitan and non-metropolitan areas. The census data on the number of dwellings are comprehensive in coverage and include all

houses, flats and units, both occupied and unoccupied, for all states and territories. Estimates of the number of dwellings are projected from the last census quarterly using building completions data and an estimate of demolitions. These estimates are revised when later census results become available.

The sales data are based on contract dates, which give an accurate indication of market prices at the time. However, the data are susceptible to systematic upward revisions because there can be lags of several months between contract dates and settlement, and data do not become available until after settlement. To reduce that problem the dwelling price series is 'rated forward' using the growth rate in the ABS house price index for the two most recent quarters. Prior to 1998 RBA used a number of different sources on dwelling prices. Those price series have been spliced onto the data, using growth rates, to create a continuous series going back to 1960.

RBA use average sales price data provided by a private sector contractor, who in turn obtain the elemental sales data from Valuers-General, but because RBA applies these prices to population census based estimates of dwelling stock, the problem of under valuation, which characterises the Valuers-General mass valuation approach, is avoided.

## COMPARISON OF ALTERNATIVE ESTIMATES

The RBA estimates are broadly supported by the 2003-04 results from the ABS Survey of Income and Housing Cost (SIHC), catalogue No. 6554.0. An estimate of the mean value of dwellings owned by households of \$335,235 was derived from the SIHC, taking into account both owner occupied and tenanted dwellings and making the assumption that 'other property' reported by households comprises dwellings and land. The previously published June 2004 ASNA estimates of the value of land and dwellings imply an average value of residential land and dwellings of \$298,679 per dwelling. The mean dwelling price estimated by the RBA for 30 June 2004 was \$348,787. The RBA estimates are broadly supported by SIHC results.

On the basis of census data RBA estimates that 92 per cent of the combined value of residential land and dwellings is owned by the household sector and attributes the remaining 8 per cent to other sectors.

The following table shows estimates from three different sources at 30 June 2004 (the reference period for the last SIHC). The former ABS national accounts estimate is the lowest, the RBA and the SIHC results are of similar magnitude.

### Combined value of residential land and dwellings owned by households, at 30 June 2004

Source	Total value \$b	Mean dwelling value \$'000
National Accounts(a)	2 216.2	299
Survey of income and housing 2003-04(b)	2 487.4	335
RBA(c)	2 588.0	349

(a) Value of dwellings plus 92% value of residential land.

(b) Weighted average of owner occupied other dwellings owned by households.

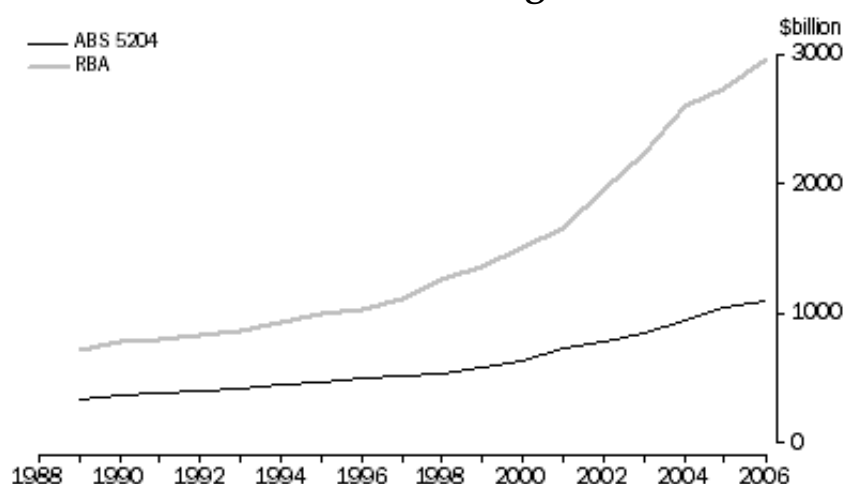
(c) RBA Bulletin, June 2006, Table B20.

The Survey of Income and Housing value is an estimate derived from survey data and assumes that all 'other property' reported by households comprises dwellings and land.

### NEW METHOD FOR RESIDENTIAL LAND

The ABS has adopted the RBA's estimates of the combined value of residential land and dwellings. The ABS estimates of the value of dwellings owned by households has been deducted to calculate the value of residential land as a residual, see graph below.

### Household dwellings and residential land, Stock at end of June



Estimates of the value of land held by sectors other than the household sector are estimated residually by the ABS by deducting the estimate of residential land and dwellings held by households from the aggregate

estimate of the value of residential land and dwellings estimated by the RBA. This approach will be retained until more direct information becomes available.

The estimation of residential land using RBA data has resulted in an increase in the total value of land on the national balance sheet, see following table.

## **COMMERCIAL AND RURAL LAND**

ABS has retained the existing data sources (i.e. Valuers-General) for commercial and rural land, which each comprise about 10 per cent of the total value of land. The sectoral breakdown of those land use categories have been revised to better capture the role of corporations, particularly in commercial activity. For commercial land, 68% has been allocated to trading corporations, 12% to financial corporations and 20% the household sector (which includes unincorporated business and non-profit institutions serving households in ASNA). For rural land 80% has been allocated to households (including unincorporated business) and 20% to trading corporations. Although there is no specific information available to make these sectoral allocations, the breakdowns are considered plausible and will be retained until more authoritative information becomes available.

## **NON-RATEABLE LAND**

In the past ABS estimated the value of non-rateable land for inclusion in a footnote to the balance sheet. Non-rateable land includes crown land, national parks and other land owned by government, and land held under native title and other types of arrangements. Reliable measures of land values covering most types of non-rateable land owned by government from 1998-99 have become available following the adoption of accrual accounting by all jurisdictions. ABS has decided to use the reported accounting measures of government owned land in the balance sheet proper, and has made estimates based on these measures back to 1988-89 using various capital stock ratios. ABS has decided to discontinue the estimation of the remaining non-rateable land because of lack of data.

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## **REVISIONS**

As a result of the foregoing considerations the impact of revised sources and methods on the sectoral allocation of residential, rural and commercial land in total are pre-

sented in the following Table.

### Land and Dwellings, by sector and land type - at June 2005

	Non-financial \$b	Financial \$b	Government \$b	Households \$b	Total \$b
<b>Dwellings</b>					
at June 2005	44.6	-	3.7	1 038.9	1 087.3
at June 2006	44.1	-	3.6	1 038.5	1 086.2
revision	-0.5	-	-0.1	-0.4	-1.1
<b>Residential land</b>					
at June 2005	83.4	-	-	1 437.7	1 521.1
at June 2006	179.1	-	10.8	1 683.0	1 872.9
revision	95.7	-	10.8	245.3	351.8
<b>Land and dwellings</b>					
at June 2005	128.0	-	3.7	2 476.6	2 608.4
at June 2006	223.2	-	14.4	2 721.5	2 959.1
revision	95.2	-	10.7	244.9	350.7
<b>Commercial land</b>					
at June 2005	32.4	22.3	-	138.7	193.4
at June 2006	138.4	24.4	-	40.7	203.5
revision	106.0	2.1	-	-98.0	10.1
<b>Rural land</b>					
at June 2005	16.7	-	-	192.2	208.9
at June 2006	16.6	-	-	191.4	208.1
revision	-0.1	-	-	-0.7	-0.8
<b>Other land</b>					
at June 2005	-	-	-	-	-
at June 2006	-	-	133.2	-	133.2
revision	-	-	133.2	-	133.2
<b>Total land</b>					
at June 2005	132.5	22.3	-	1 768.6	1 923.4
at June 2006	334.1	24.4	144.0	1 915.2	2 417.7
revision	201.6	2.1	144.0	146.6	494.3

- nil or rounded to zero (including null cells)

### CONCLUSION

The data underpinning the previous ABS estimates of residential land and dwellings have been shown to be unsuitable for measuring the market value of residential land. The RBA estimates are of better quality than the ABS estimates and are broadly supported by SIHC 2003-04 results. ABS has adopted the RBA's estimates of the combined value of residential land and dwellings and then deducted the value of dwellings to calculate the value of residential land as a residual. The use of RBA data to estimate residential land has resulted in an increase in the total value of land on the national balance sheet.

For further information on the measurement of the dwelling stock and land, please contact

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## REFERENCES

**Census of Population and Housing: Selected Social and Housing Characteristics, Australia, 2001** (cat. no. 2015.0)

**Household Wealth and Wealth Distribution, Australia, 2003-04** (cat. no. 6554.0)

**Australian System of National Accounts, 2004-05** (cat. no. 5204.0)

**Household Dwelling Wealth: A New Estimate**, unpublished Reserve Bank of Australia paper, September 2004.

**Australian Net Private Wealth**, Treasury Economic Round-up Summer 2006, March 2006

**Improving the Quality of Land Valuations Issued by the Valuer General: a special report to (N.S.W.) Parliament**, October 2005

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