## 4 Country-Specific Information<sup>24</sup>

## 🐮 🛛 AU – Australia

The Australian Bureau of Statistics (ABS) produces a house price index for new and existing, single-family dwellings located in the eight capital cities (Sydney, Melbourne, Brisbane, Adelaide, Perth, Canberra, Darwin, and Hobart). ABS uses the concept of established houses to differentiate from project homes (which are not yet completed). An established house may be existing or new. The index is created using the mix-adjusted method, with dwellings grouped by suburbs. The median price is calculated for each group according to the price that is first documented in a sales contract. This price is then weighted by the value of dwelling stock, determined by the most recent five-year census. The 2006 census is the most current publication. There is a recent break in the methodology of the series. Prior to 2002, ABS documented house prices according to the final price documented in a sales contract, weighted by the financial commitment (the value of the mortgages). The main purpose was tracking mortgage interest rates. The index is reported at a quarterly frequency starting in the second quarter of 1986.

To extend the data back to 1975, we splice the ABS house price index with growth rates of the Australian Treasury house price index, obtained upon request. The Treasury index measures prices for all types of dwellings, new and existing. The Treasury index is itself a compilation of indexes: From 1986 onwards the data draws from the ABS series described above. Prior to 1986, only six capital cities are included (Sydney, Melbourne, Brisbane, Adelaide, Perth, and Canberra; Darwin and Hobart are excluded). From 1978 to 1986, data comes from the Real Estate Institute of Australia and represents median house prices weighted by housing finance data. From 1960 to 1978, data comes from Bis-Shrapnel, a private consulting company that gathered price information from published auction sales. The index represents a weighted average of median prices in each capital city, with the same weights used to aggregate the 14<sup>th</sup> CPI series.

None of the house price series are seasonally-adjusted by the source. We seasonally-adjust the spliced series using a BSTS model, and re-base it to 2005=100. We deflate this house price series using the personal consumption expenditure (PCE) deflator obtained from the OECD Economic Outlook database.

We complete the Australian data by reporting personal disposable income (PDI) on a *per capita* basis, which we compute by dividing the household disposable income series by the working age population series. Both series are reported at a quarterly frequency and originally obtained complete from the first quarter of 1975 through the OECD Economic Outlook database. The source of personal disposable income (PDI) and working age population changed with the 2012 first quarter update, affecting all subsequent updates. Gross disposable income and consumption of fixed capital for households are collected from the Australian Bureau of Statistics. These two series start in the third quarter of 1959 and come seasonally adjusted from the source. Consumption of fixed capital is subtracted from gross disposable income to compute a net disposable income series. Current working age population data is obtained from the OECD Main

<sup>&</sup>lt;sup>24</sup> We use the two-letter country codes defined under ISO 3166-1 (published by the International Organization for Standardization (ISO) as part of the ISO 3166 standard) to identify the countries in our database.



Economic Indicators database. It is reported at a quarterly frequency and begins in the first quarter of 1978. We use the quarterly growth rates of the discontinued working age population series from the OECD Outlook 90 database to extend the series to the first quarter of 1975. We use the PCE deflator to express the PDI *per capita* series in real terms. Both nominal and real PDI measures are re-based to 2005=100.

## References:

Abelson and Chung (2005): "The Real Story of Housing Prices in Australia from 1970-2003." Australian Bureau of Statistics (2006): "A Guide to House Price Indexes: Australia 2006." Australian Bureau of Statistics (2009): "House Price Indexes: Concepts, Sources and Methods, Australia."

## Information Resources:

Reserve Bank of Australia Data http://www.rba.gov.au/statistics/frequency/occ-paper-8.html#section 5

Australian Bureau of Statistics Data

http://abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/52AFA5FD696482CACA25768 D0021E2C7?opendocument

Acknowledgements: Alex Beams from the Australian Treasury and Peter Abelson from Sydney University.