



Australian Institute for Progress

# Housing Affordability Index

September Quarter, 2021

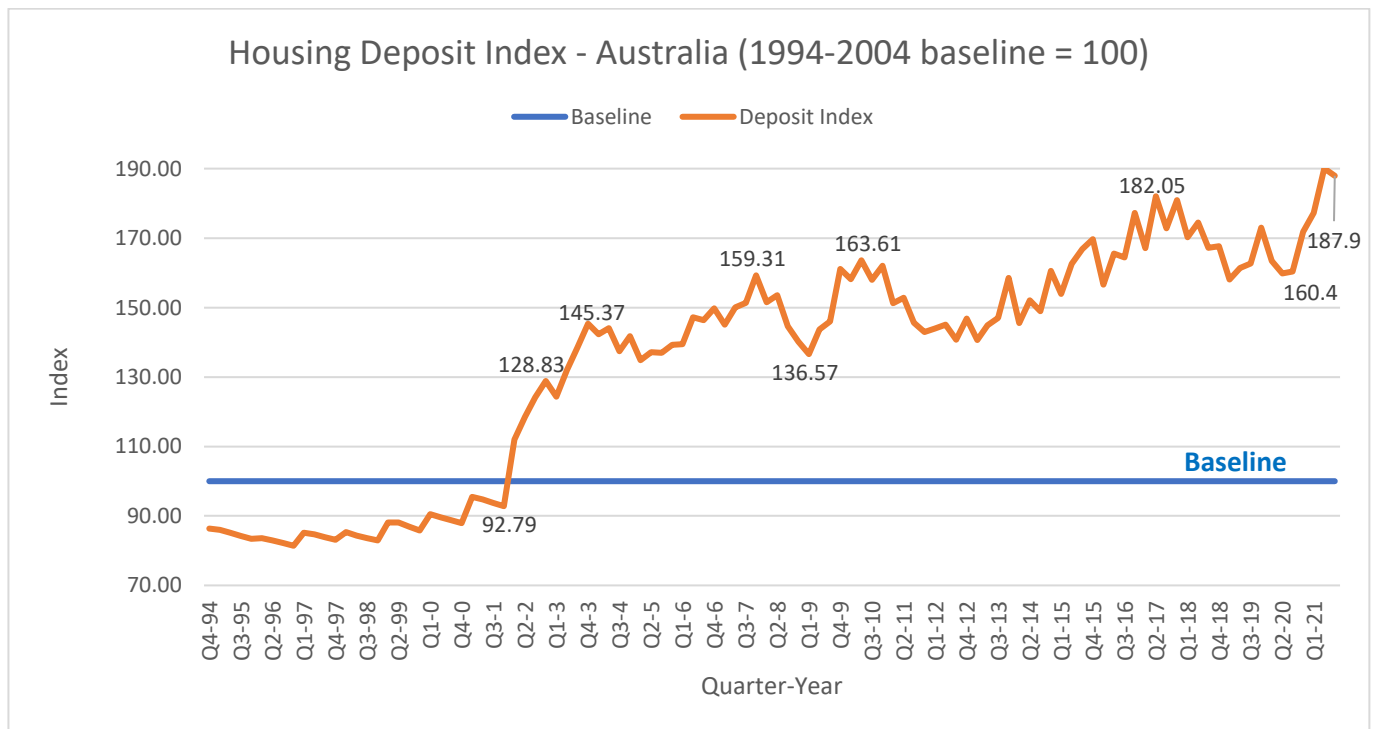
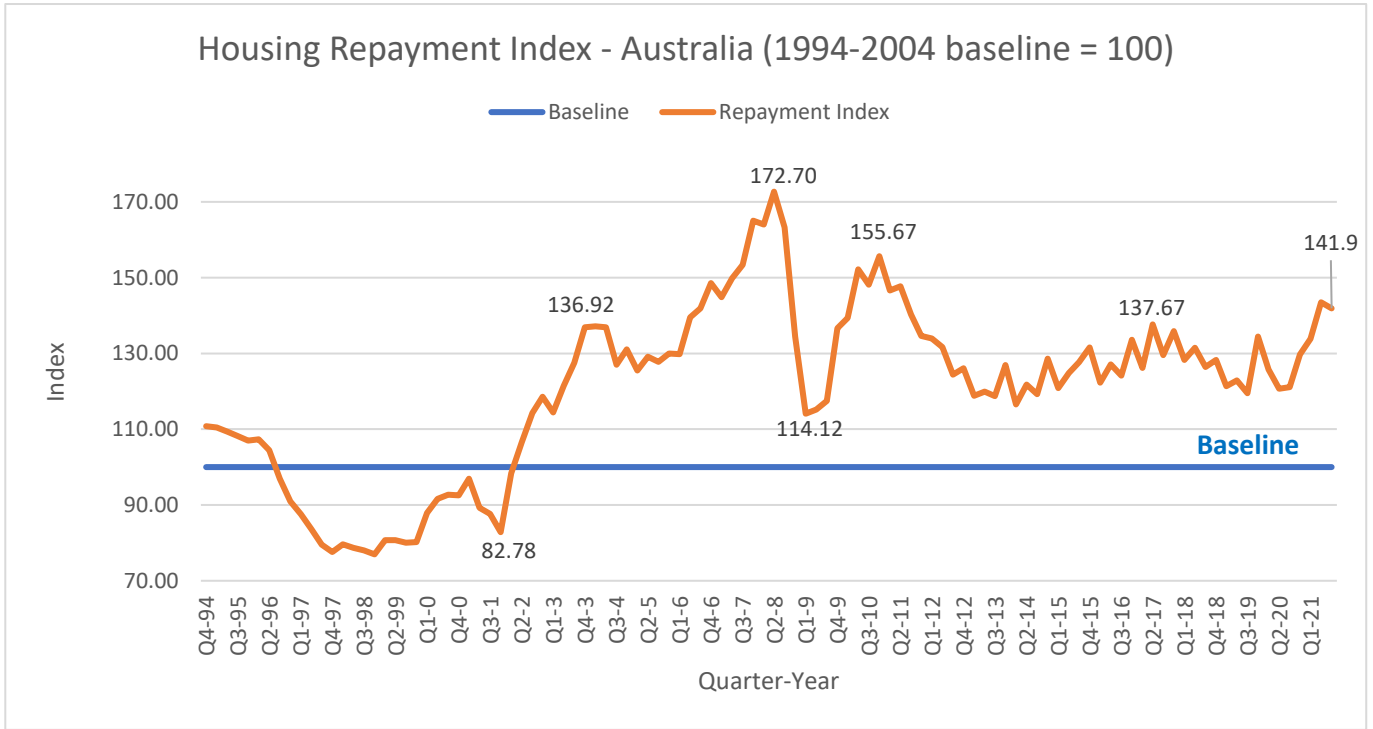
A Quarterly Review of Housing Affordability

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Highlights

- Repayment costs have slightly decreased over the 3rd quarter of 2021, with the repayment index decreasing from 143.5 to 141.9.
- Deposit costs also decreased over the 3rd quarter, with the deposit index decreasing from 190.1 to 187.9.
- The change in deposit and repayment costs is attributable to a decrease in median house prices by \$12,753.1 (7.09%), with both Perth and Melbourne experiencing price falls.
- Established house transfers fell across all major capital cities over quarter 3 for a total of 13,239 houses.



## Summary

The 2021 Quarter 3 Australian housing market saw a minor increase in affordability of both housing deposits and repayments across all capital cities. Aggregating across Australia, national housing repayment and deposit costs decreased by 1.6 and 2.1 index points respectively. The increase in national housing affordability is the result of a quarterly decrease in median house prices (\$13,238) and the number of house transfers falling in more expensive cities (Sydney, Melbourne) relative to cheaper cities (Hobart, Darwin). Melbourne and Perth experienced a decrease in their repayments index by 3 and 5.6 percentage points respectively, while the remaining capital cities had slight increases in repayment costs.

Darwin, Perth, and Brisbane remain the most affordable cities when it comes to repayments. Repayments in Perth became more affordable, over the 2021 3<sup>rd</sup>, quarter than the 1994-2004 average repayment used as the index's baseline. Hobart continues to be the least affordable with a repayment index of 185.9, with a Hobart's repayment costs further increasing by 11.1 index points.

	<i>Deposit Index</i>		<i>Repayment Index</i>	
<i>Sydney</i>	189.5	(1.6)	143.7	(1.2)
<i>Melbourne</i>	210.3	(-4.0)	159.3	(-3.0)
<i>Brisbane</i>	167.3	(6.9)	125.3	(5.2)
<i>Adelaide</i>	187.1	(9.5)	140.9	(7.2)
<i>Hobart</i>	248.6	(14.8)	185.9	(11.1)
<i>Darwin</i>	140.0	(0.4)	104.3	(0.3)
<i>Canberra</i>	209.7	(8.4)	158.1	(6.3)
<i>Perth</i>	131.6	(-7.5)	99.0	(-5.6)
<i>Average</i>	187.9	(-2.1)	141.9	(-1.6)

We measure our repayment affordability index using median house prices and calculating the ratio of repayments to average weekly earnings and expressing it as a percentage of the average for the first 10 years of the time series. We measure our deposit affordability index by calculating the ratio of an average 20% deposit to average weekly earnings and expressing it as a percentage of the average figure for the first 10 years of the time series. National figures are based on using a weighted average of the 8 most populous cities in Australia, weighted by the number of established housing transfers in each city for each quarter.



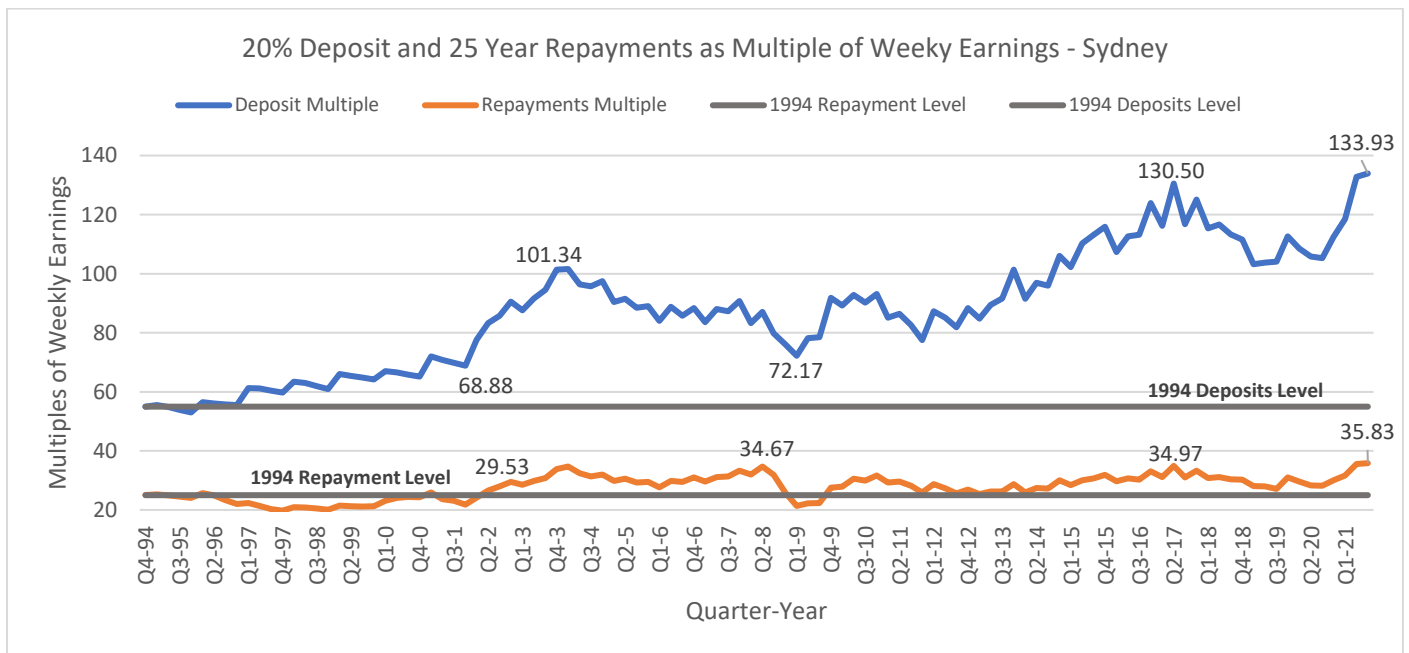
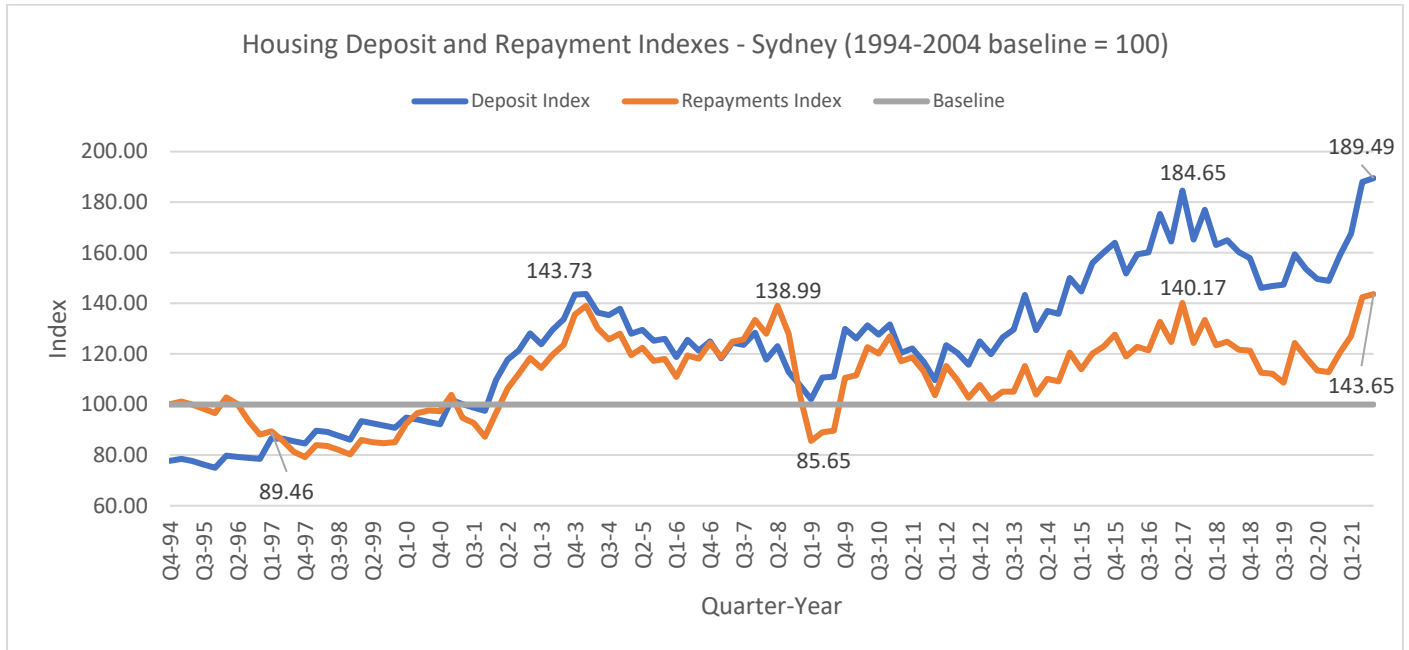
Graham Young  
Executive Director  
**Australian Institute for Progress**



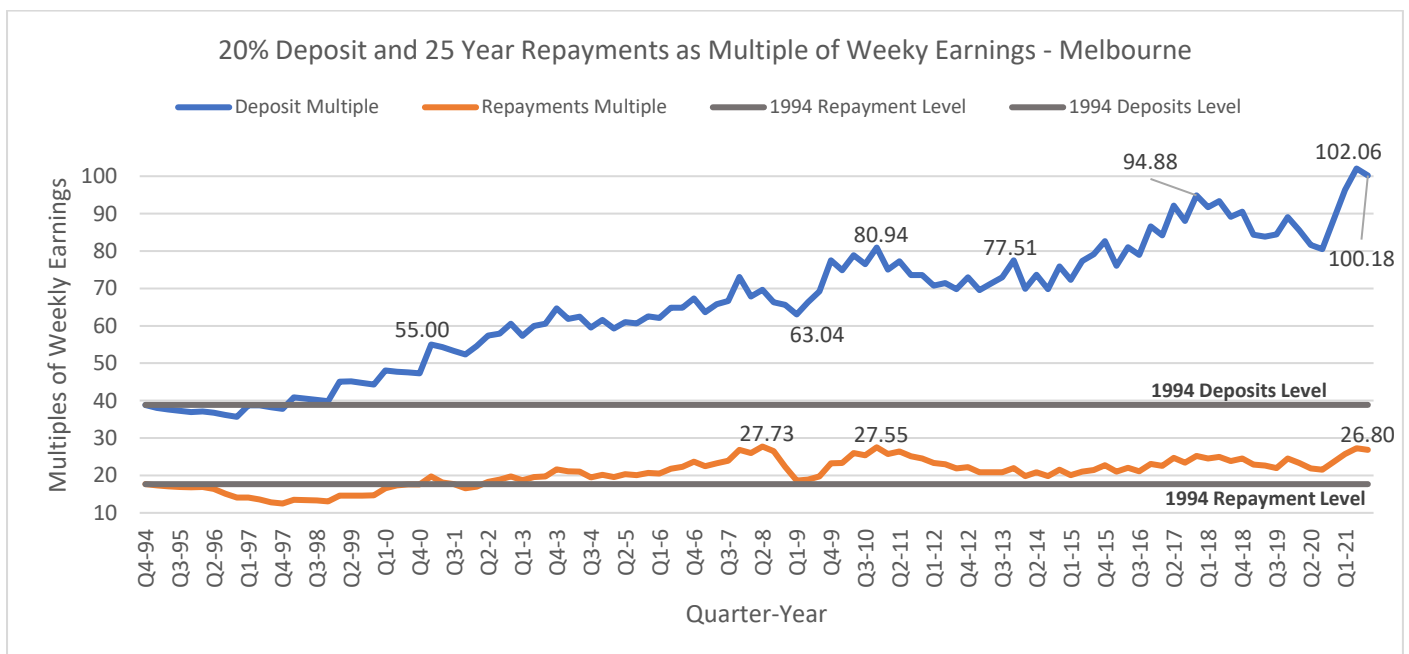
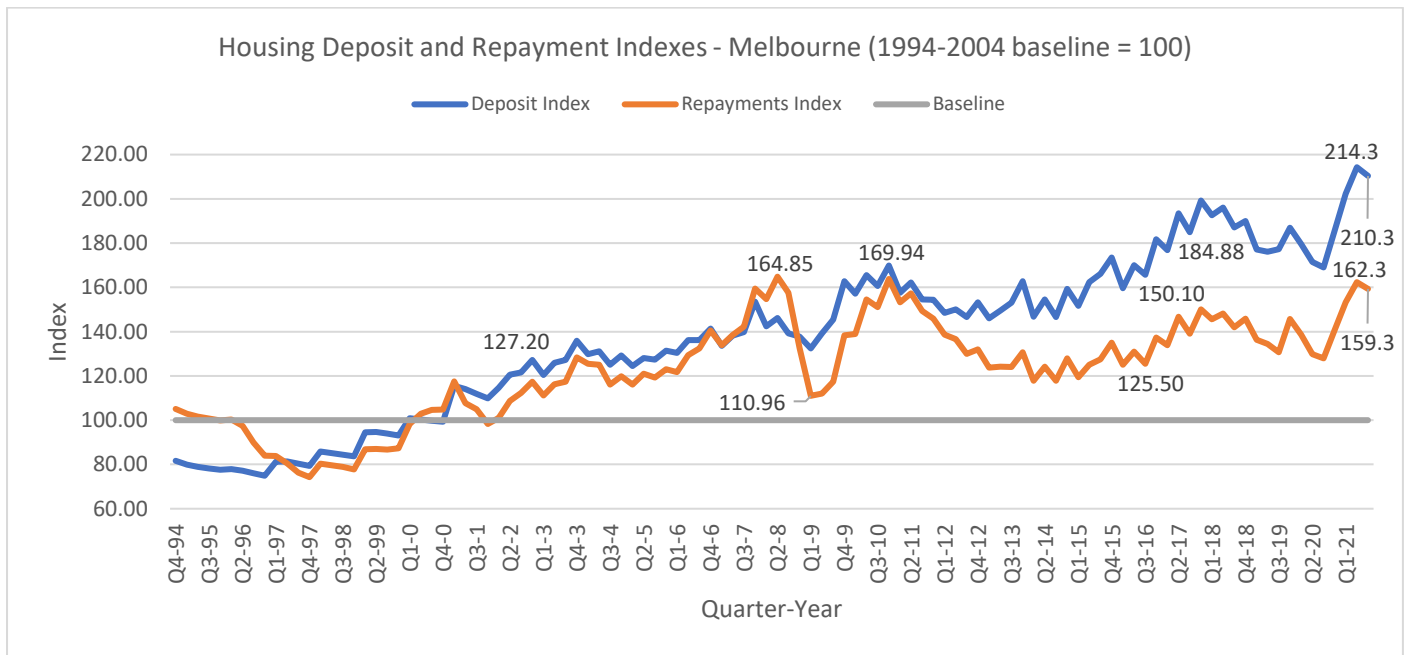
Nicholas Umashev  
Economic Researcher  
**Australian Institute for Progress**

Deposit and Repayment Costs by State

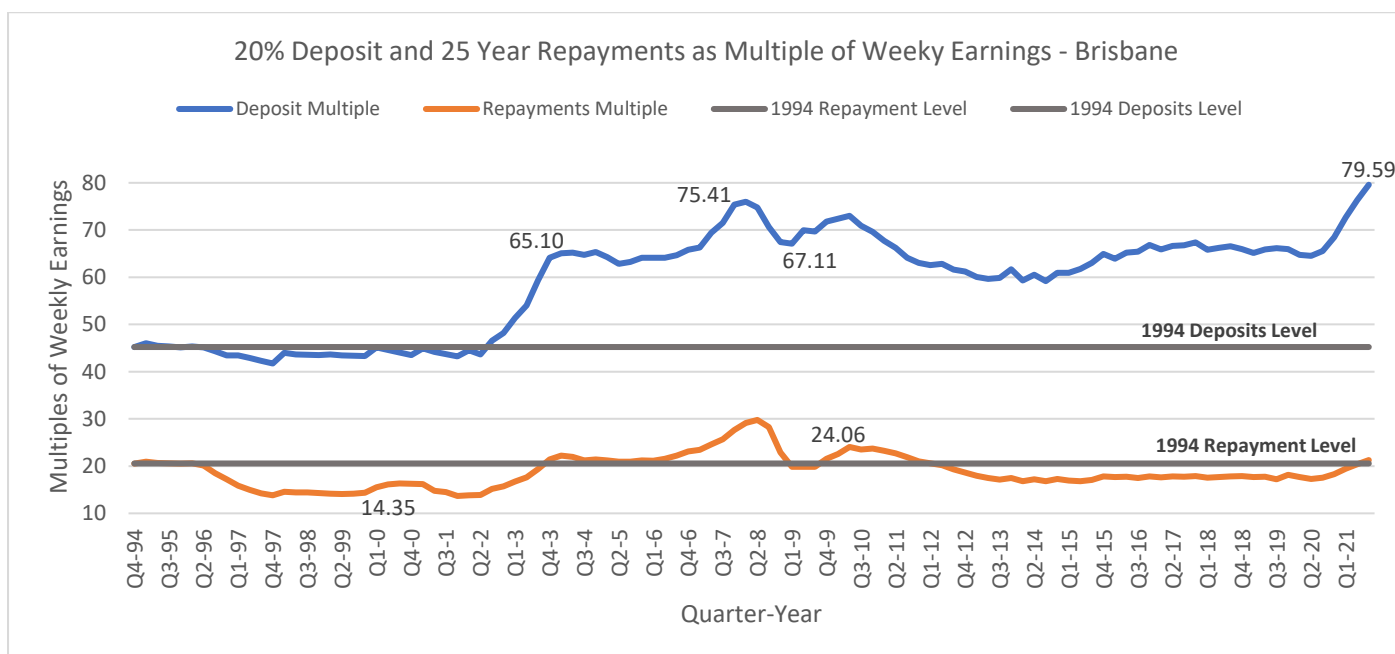
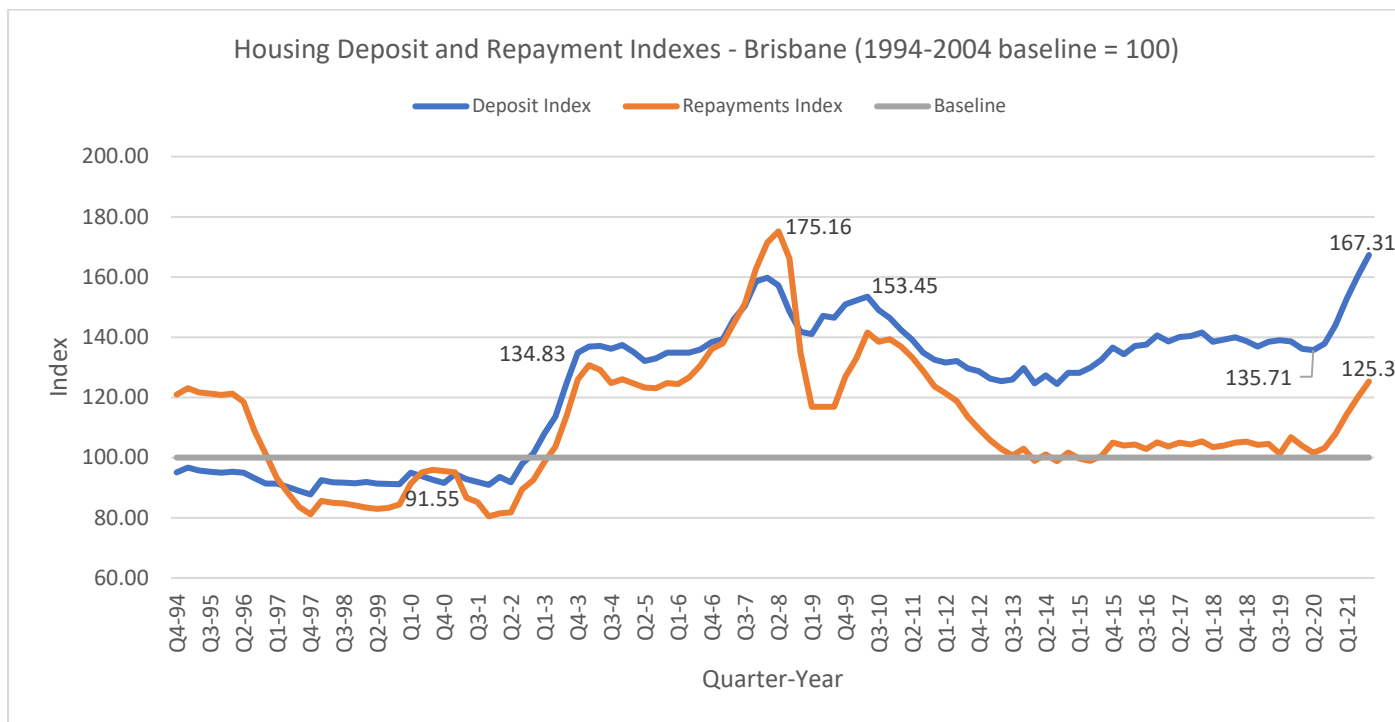
Sydney



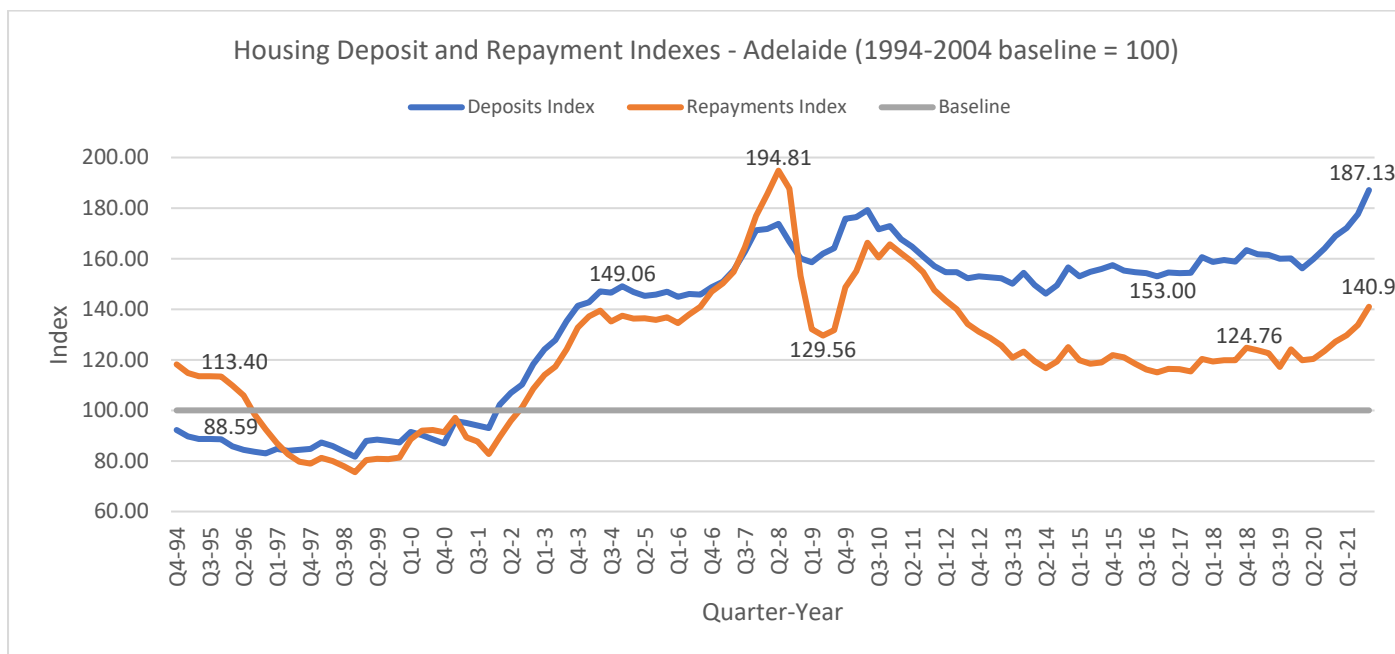
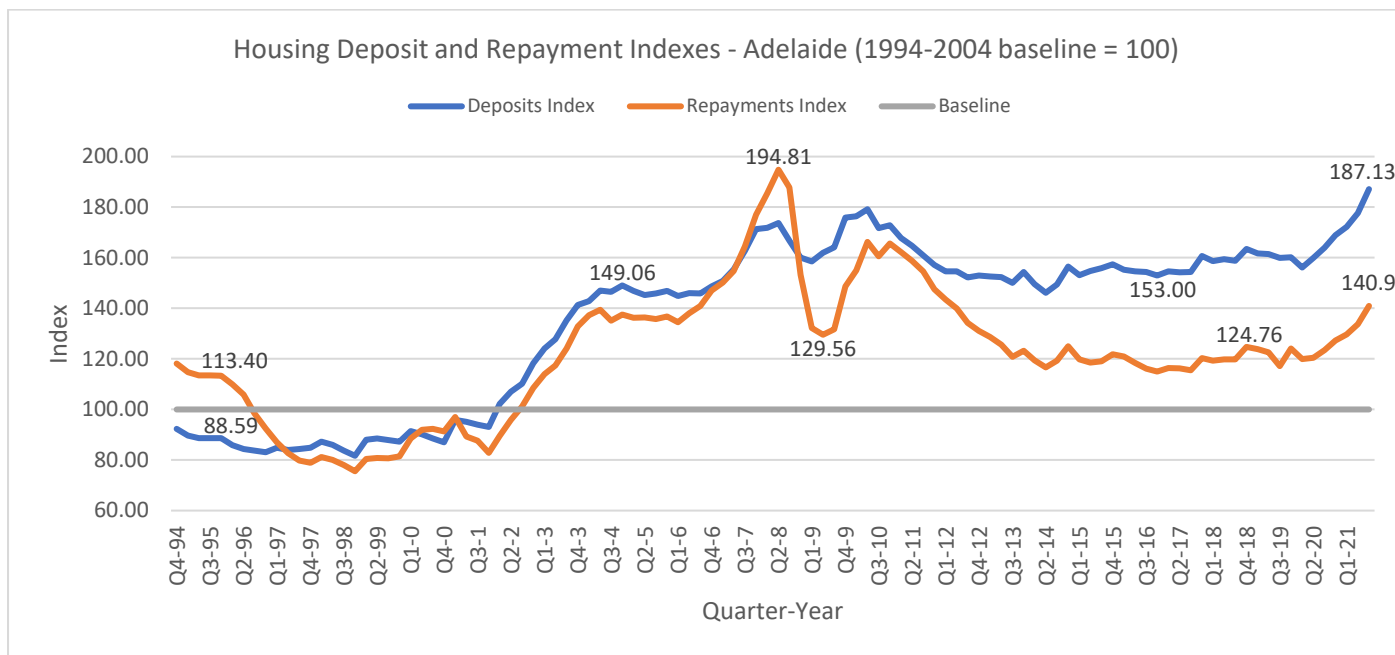
Melbourne



Brisbane

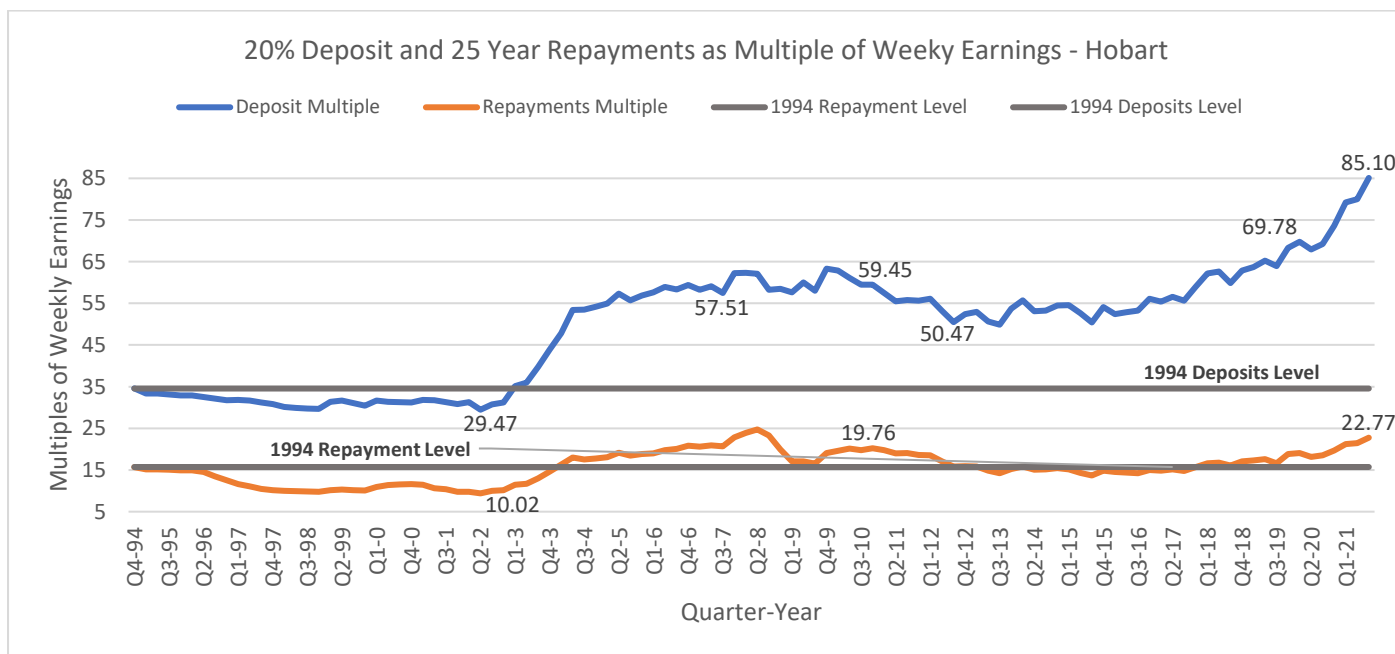
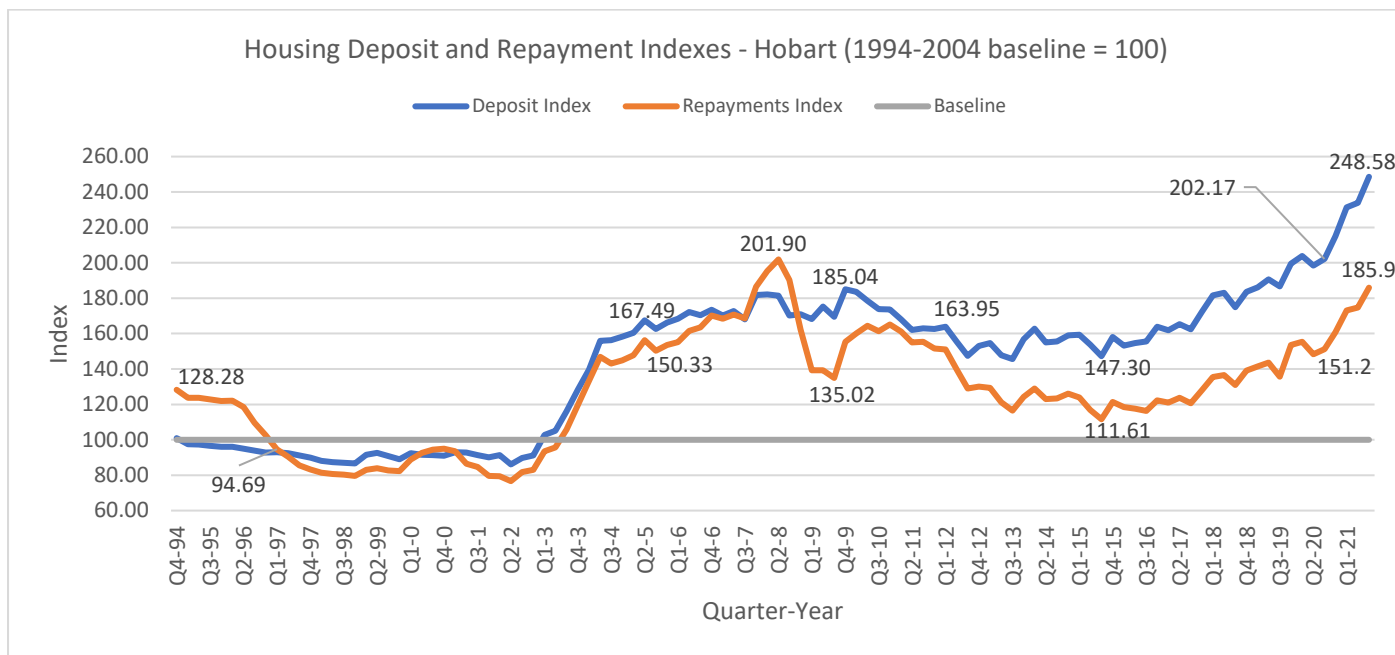


Adelaide

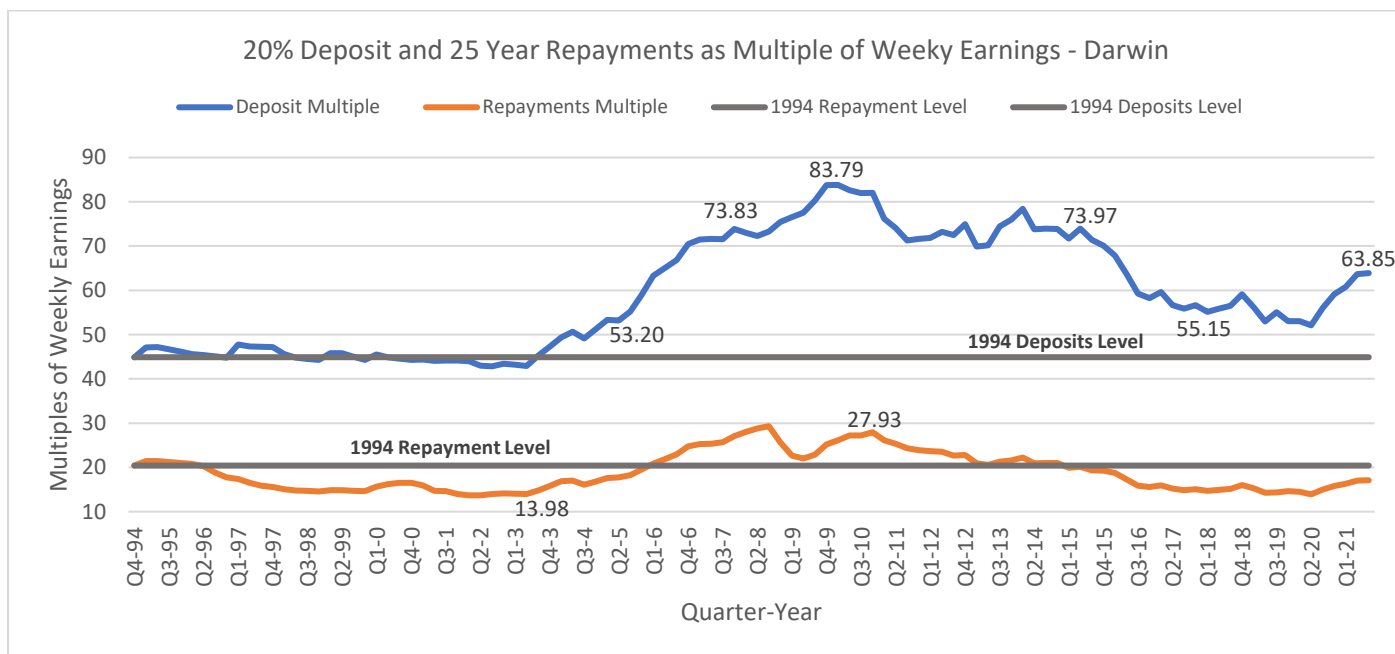
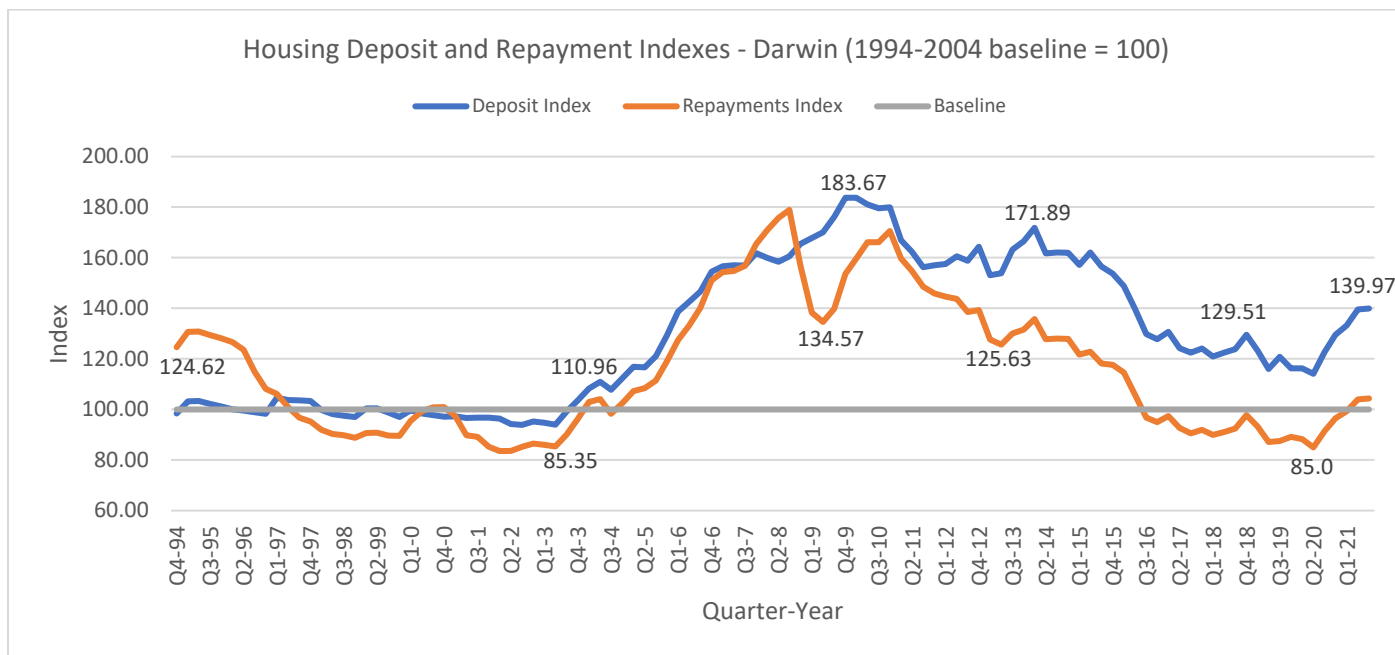




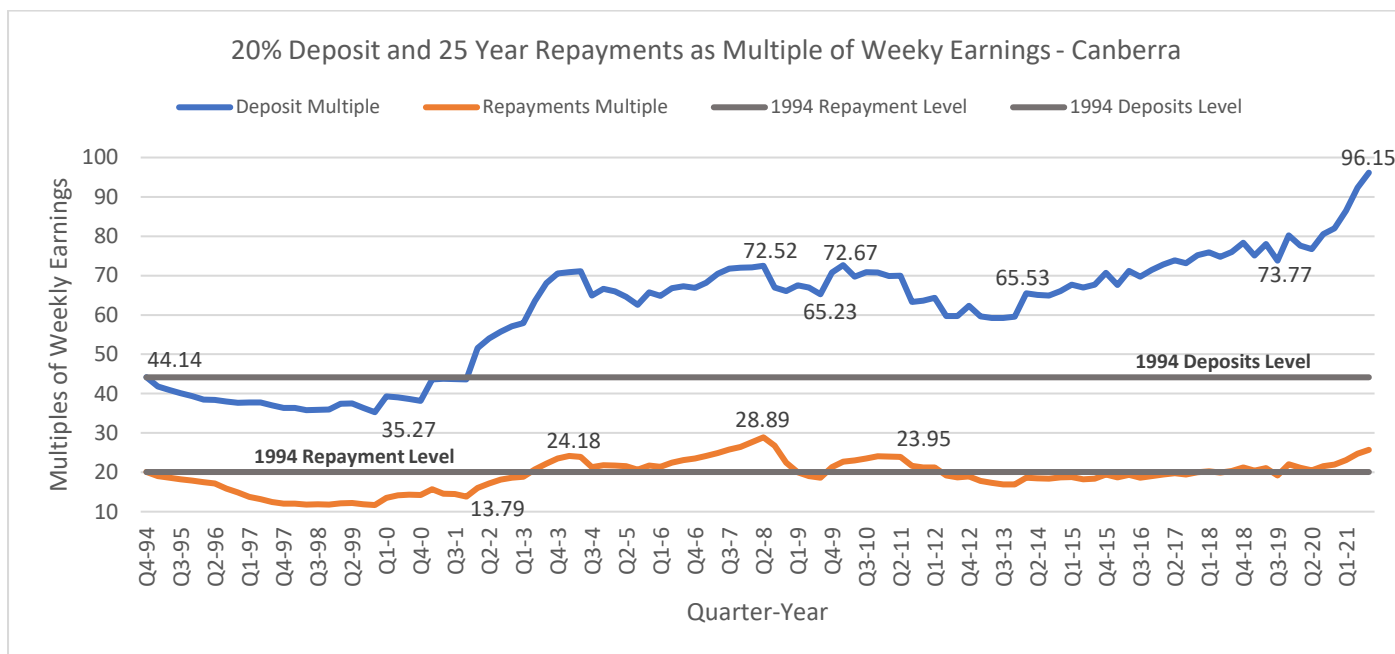
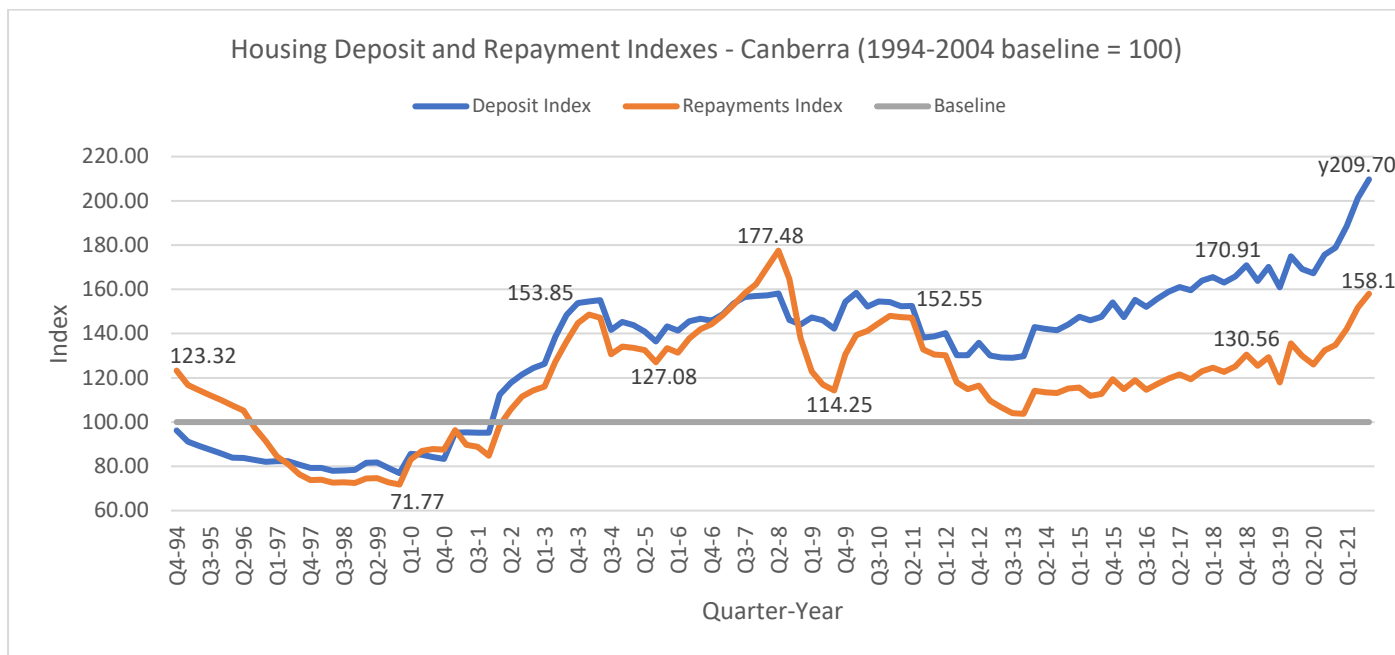
Hobart



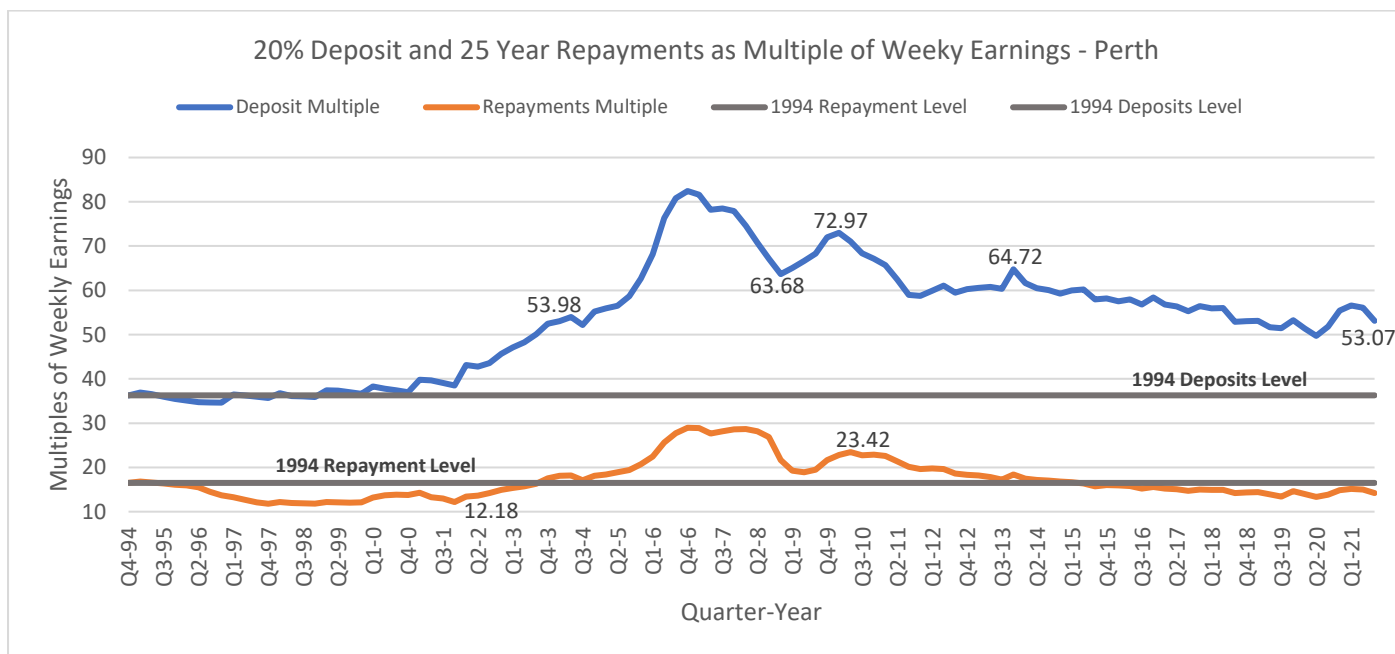
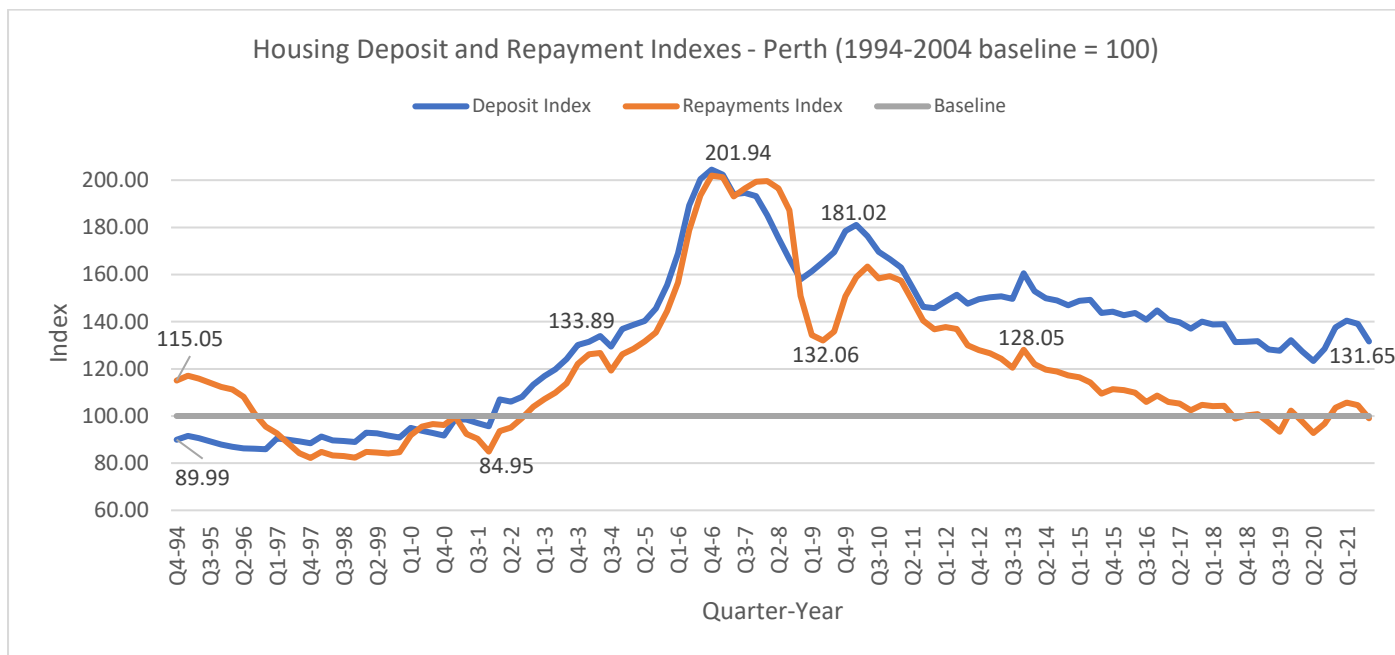
Darwin



Canberra



Perth



## Methodology

Since the majority of Australian's rely on a mixture of debt and equity to purchase real estate, it is necessary to analyse housing affordability based on the cost of deposits and repayments. To reflect the real experience of home buyers, rather than just the increase in capital values, we model the cost of notional deposits and house repayments between Q4:1994 and Q3:2021 across Australia's eight most populous cities.

For the mortgage structure, we assume a 20% home deposit as well as monthly payments and daily compounding over a 25-year mortgage period. We calculate the average owner-occupier home loan rate over a given quarter, providing us with an estimate for the mortgage rate over the following 25-year loan period. In addition to using the median residential price for a given capital city, we also use average weekly earnings reported on the state level.

To calculate the repayment multiplier, we take the total yearly payment for a principal interest loan divided by the average weekly earnings for a given city and quarter. To calculate the deposit multiplier, we instead divide the cost of a deposit by average weekly earnings. Using the deposit/repayment weekly multiplier values, we use a city's average deposit/repayment weekly multiplier over the period Q4:1994 to Q4:2004 as the baseline for that city's index (with the baseline indexed to 100). Using the deposit/repayment weekly multiplier values, we use a city's average deposit/repayment weekly multiplier over the period Q4:1994 to Q4:2004 as the baseline for that city's index (with the baseline indexed to 100).

We use the number of housing transfers for Australia's 8 most populous cities in order to create a weighted national average for the relevant statistics (i.e. average weekly wage, median house prices) included in this paper. Note that due to the limited housing data available, we take the national average to be the simple average of the for the years prior to Q1:2002.

The datasets used within this model include: ABS 6302 Average Weekly Earnings, ABS 6412 Residential Property Prices Indexes for post-2002 median capital city house prices, table 1 of Abelson 2003 for pre-2002 median house prices, and RBA F5 Indicator Lending Rates for owner-occupier variable standard housing loan rates – taking the average rate over the months in a given quarter.

## References

1. Abelson, Peter; Chung, Demi. (2004). *Housing Prices in Australia: 1970 to 2003*. Published by The University of Sydney. Obtained via: [https://www.researchgate.net/publication/5165791\\_Housing\\_Prices\\_in\\_Australia\\_-\\_1970\\_to\\_2003](https://www.researchgate.net/publication/5165791_Housing_Prices_in_Australia_-_1970_to_2003)
2. ABS 6416. (September 2021 series). *Residential Property Price Indexes: Eight Capital Cities*. Obtained via: <https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/residential-property-price-indexes-eight-capital-cities/latest-release-data-download>
3. ABS 6302. (May 2021 series). *Average Weekly Earnings: Australia*. Obtained via: <https://www.abs.gov.au/statistics/labour/earnings-and-work-hours/average-weekly-earnings-australia/latest-release>
4. RBA F05. (September 2021 series). *Indicator Lending Rates*. Obtained via: <https://www.rba.gov.au/statistics/tables/xls/f05hist.xls>