



Australian Institute for Progress

# Housing Affordability Index

June Quarter, 2021

A Quarterly Review of Housing Affordability

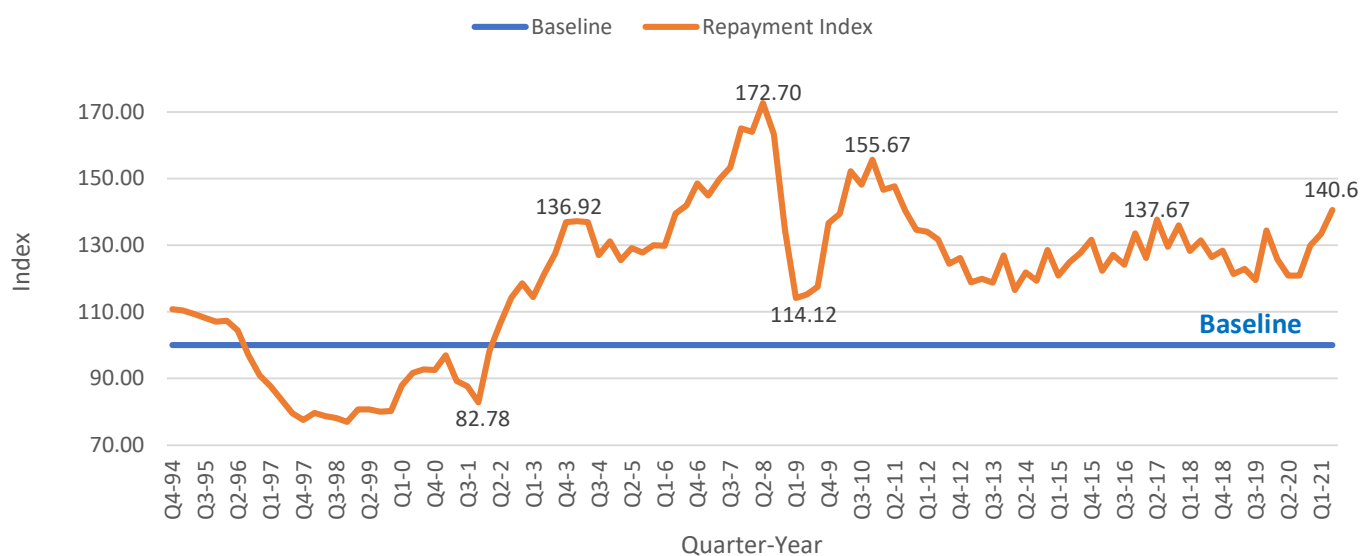
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*The Australian Institute for Progress exists to advance the discussion, development and implementation of public policy for Australia's future, from its base in Brisbane. The future does not look after itself.*

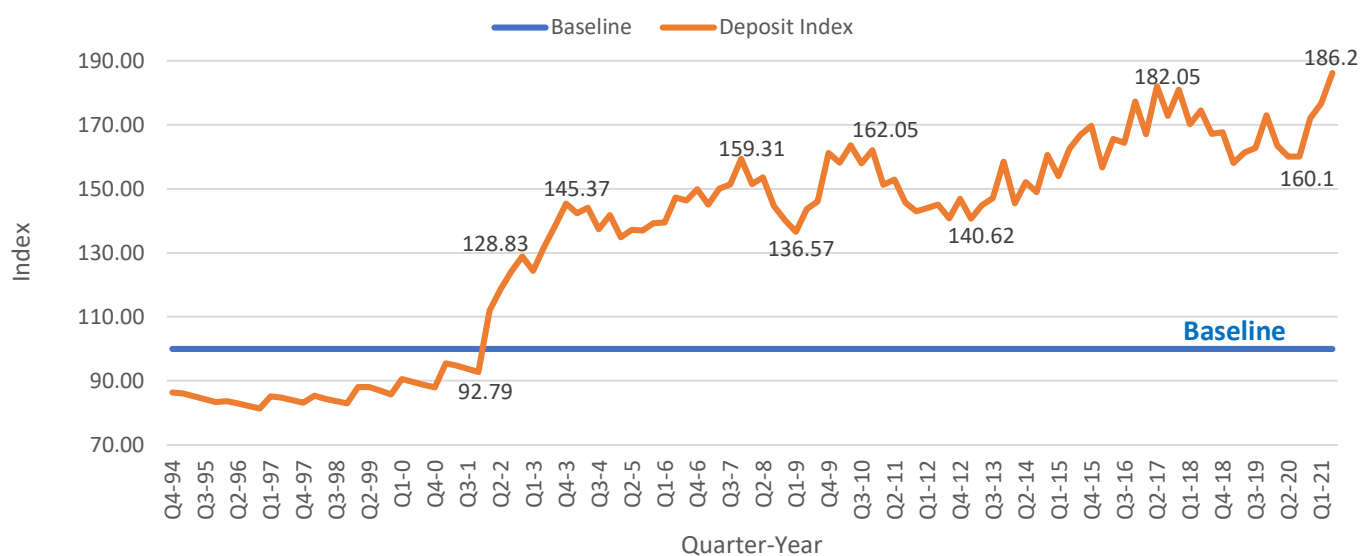
## Highlights

- Repayment costs have increased over the 2nd quarter of 2021, with the repayment index increasing from 133.4 to 140.6 (5.4% decrease in affordability on the previous quarter).
- Deposit costs also increased over the 2nd quarter, with the deposit index increasing from 176.7 to 186.2 (5.4% decrease in affordability on the previous quarter).
- The change in deposit and repayment costs is attributable to an increase in median house prices by \$53,856.8 (7.09%), with Sydney experiencing the greatest median house price increased followed by Canberra. The growth in housing costs was partially offset by a \$29 increase in average weekly wages.
- Lending rates were held steady therefore having no impact on affordability.

### Housing Repayment Index - Australia (1994-2004 baseline = 100)



### Housing Deposit Index - Australia (1994-2004 baseline = 100)



## Summary

The 2021 Quarter 2 Australian housing market saw a decrease in affordability of both housing deposits and repayments across all capital cities. Aggregating across Australia, national housing repayment and deposit costs increased by 7.2 and 9.5 index points respectively (a decrease of 5%). The decrease in national housing affordability is the result of a quarterly rising median house prices (+\$53,857) offset to some extent by an increase in average weekly wages (+\$29). This decrease in affordability is consistent across Australia's capital cities, with the exception of Perth where affordability increased with the deposit and repayment index falling by 2.6 and 1.9 index points respectively (approximately 2%).

The total number of weeks to raise a deposit, given a 10% savings rate and \$1,796 average weekly wages, now averages 906 weeks across Australia, having increased by 46 weeks, or almost a year, over the June quarter. The increase in the number of weeks to raise a deposit varies significantly by city, with large increase of 79 weeks for Canberra and a decrease of 10 weeks in Perth.

Housing has become more expensive on a repayment affordability basis. Darwin, Perth, and Brisbane remain the most affordable cities when it comes to repayments, with Perth and Darwin hovering around the average of the 1990s. Brisbane's repayment costs are 20% over that mark and increased by 5.4 points. (Darwin increased by 4.1 and Perth fell by 1.9). Hobart continues to be the least affordable with a repayment index of 175.6, though Hobart's repayment costs only increased by 2.6 index points compared to 11.3 over the March quarter. Sydney and Canberra both had significant increases in repayment costs, with Sydney's repayment index rising by 13.3 and Canberra's by 13. Darwin is still the most affordable city with repayment costs just above its 1994 to 2004 average, with the repayment index rising to 103.4.

	<i>Deposit Index</i>		<i>Repayment Index</i>	
<i>Sydney</i>	184.4	(17.6)	139.8	(13.3)
<i>Melbourne</i>	208.5	(6.7)	157.9	(5.1)
<i>Brisbane</i>	159.9	(7.2)	119.7	(5.4)
<i>Adelaide</i>	176.0	(3.8)	132.6	(2.9)
<i>Hobart</i>	234.9	(3.5)	175.6	(2.6)
<i>Darwin</i>	138.8	(5.5)	103.4	(4.1)
<i>Canberra</i>	205.8	(17.2)	155.1	(13.0)
<i>Perth</i>	137.8	(-2.6)	103.7	(-1.9)
<i>Average</i>	186.2	(9.5)	140.6	(7.2)

Many cities are close to previous peaks in repayment unaffordability reached earlier in the 21<sup>st</sup> Century, and all bar Perth have surpassed the peak in deposit unaffordability.

	<b><i>Deposit Index</i></b>			<b><i>Repayment Index</i></b>		
	<i>Highest previous peak</i>	<i>Year</i>	<i>Current figure</i>	<i>Highest previous peak</i>	<i>Year</i>	<i>Current figure</i>
<b><i>Sydney</i></b>	184.7	2017	184.4	140.2	2017	139.8
<b><i>Melbourne</i></b>	199.2	2017	208.5	164.9	2008	157.9
<b><i>Brisbane</i></b>	153.5	2010	159.9	175.2	2008	119.7
<b><i>Adelaide</i></b>	179.2	2010	176.0	194.8	2008	132.6
<b><i>Hobart</i></b>	185.0	2009	234.9	201.9	2008	175.6
<b><i>Darwin</i></b>	183.7	2009	138.8	178.9	2008	103.4
<b><i>Canberra</i></b>	158.5	2010	205.8	177.5	2008	155.1
<b><i>Perth</i></b>	204.5	2006	137.8	201.3	2007	103.7

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.



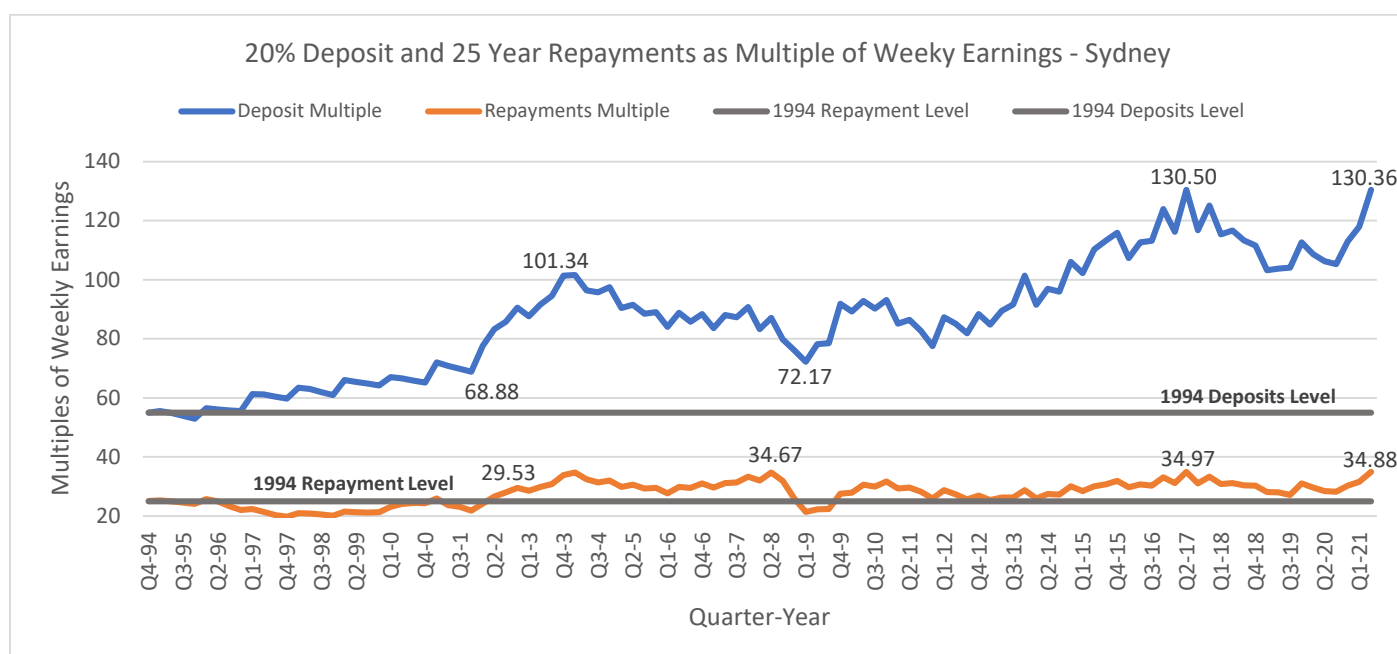
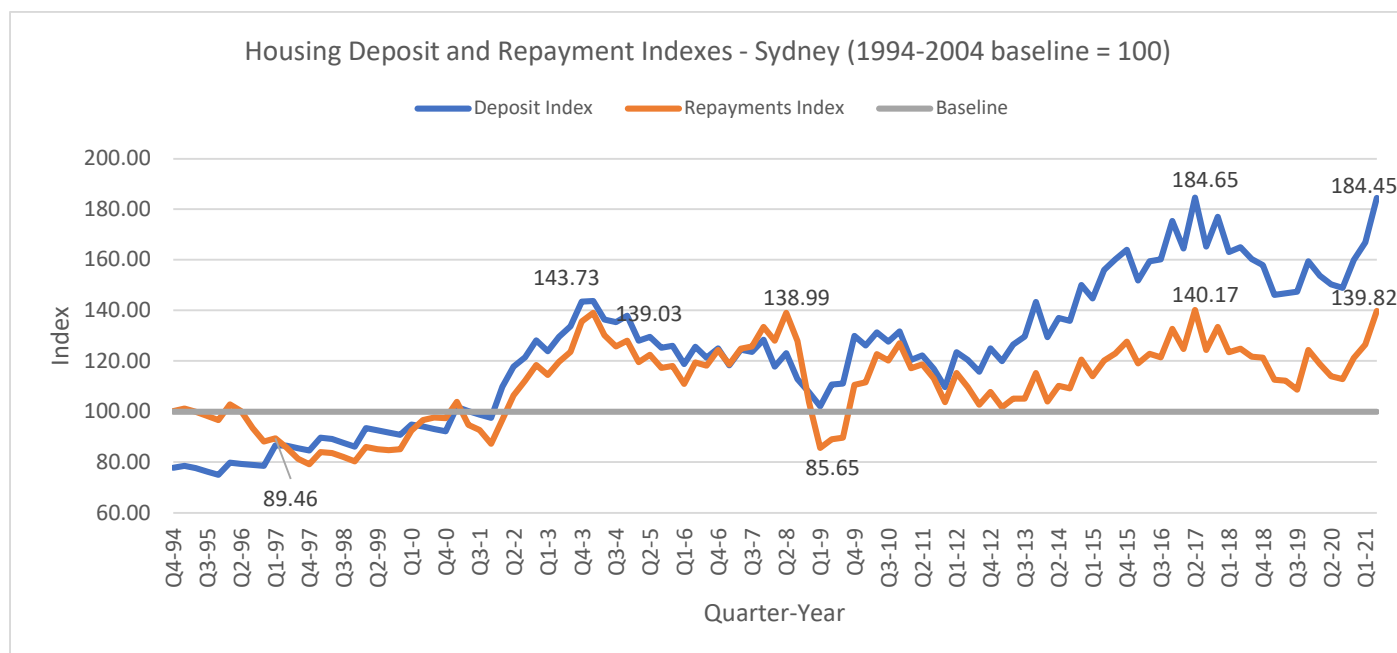
Graham Young  
Executive Director  
Australian Institute for Progress

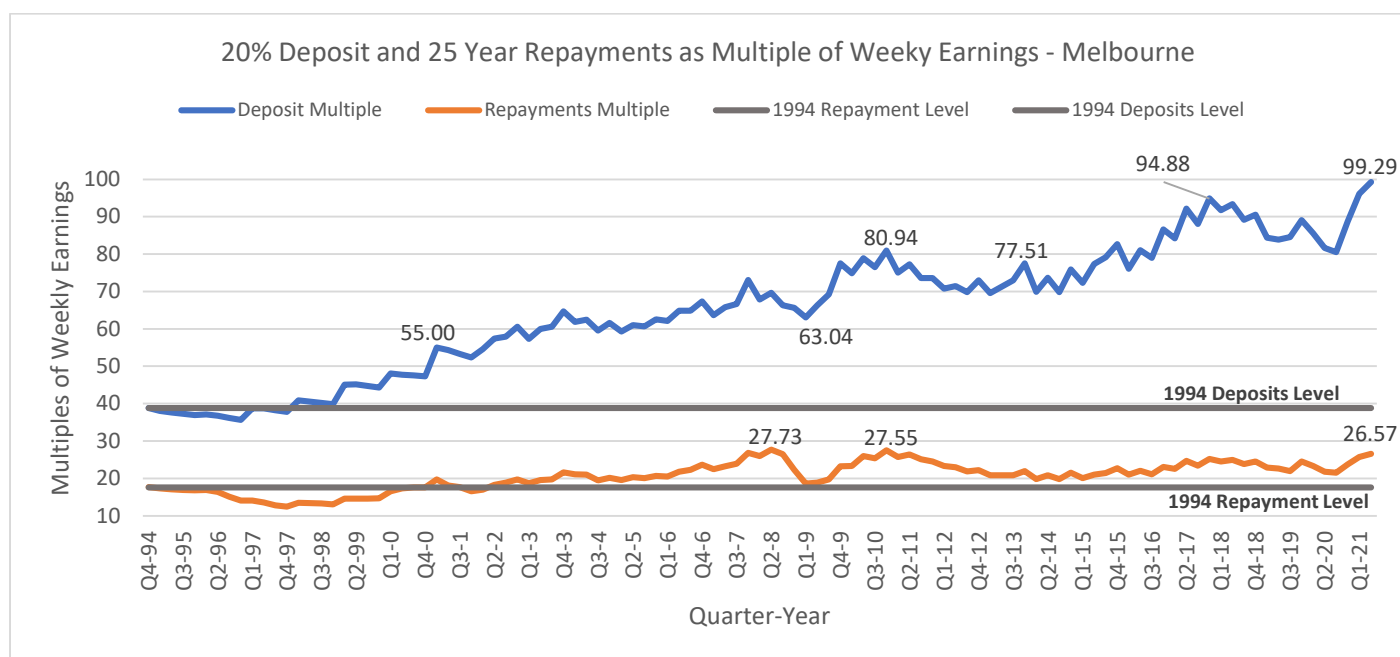
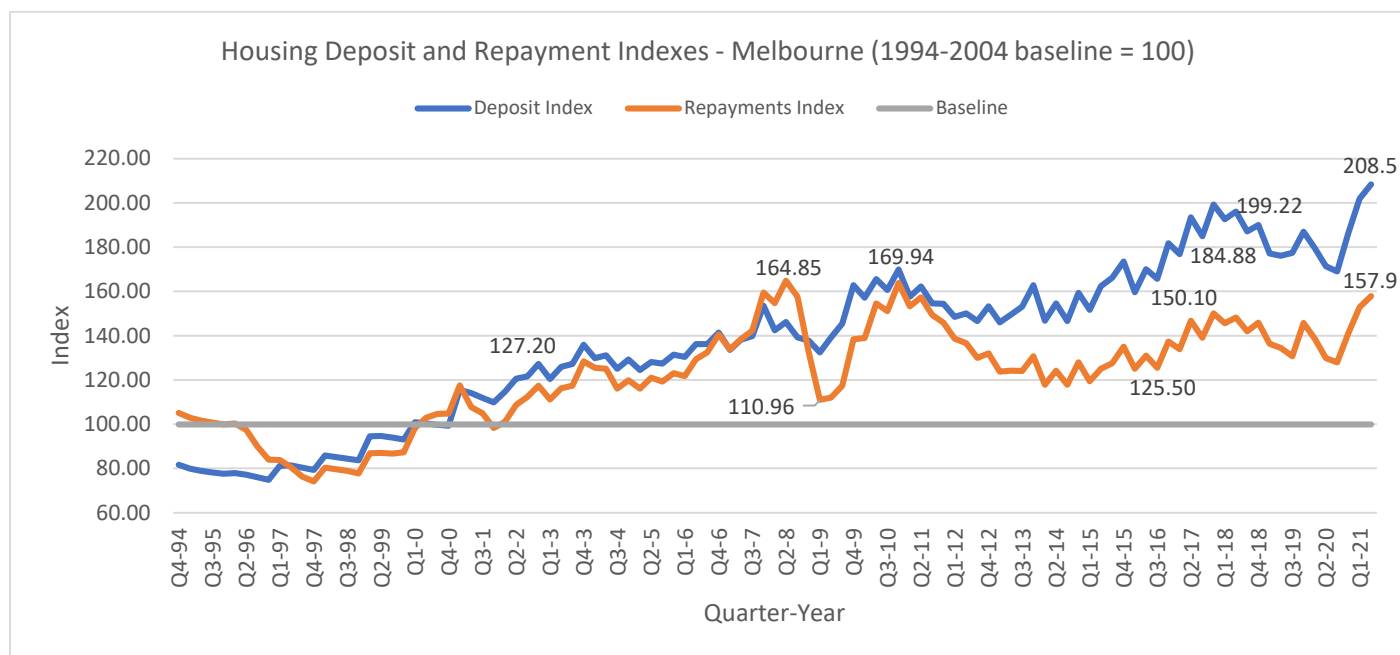


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Economic Researcher  
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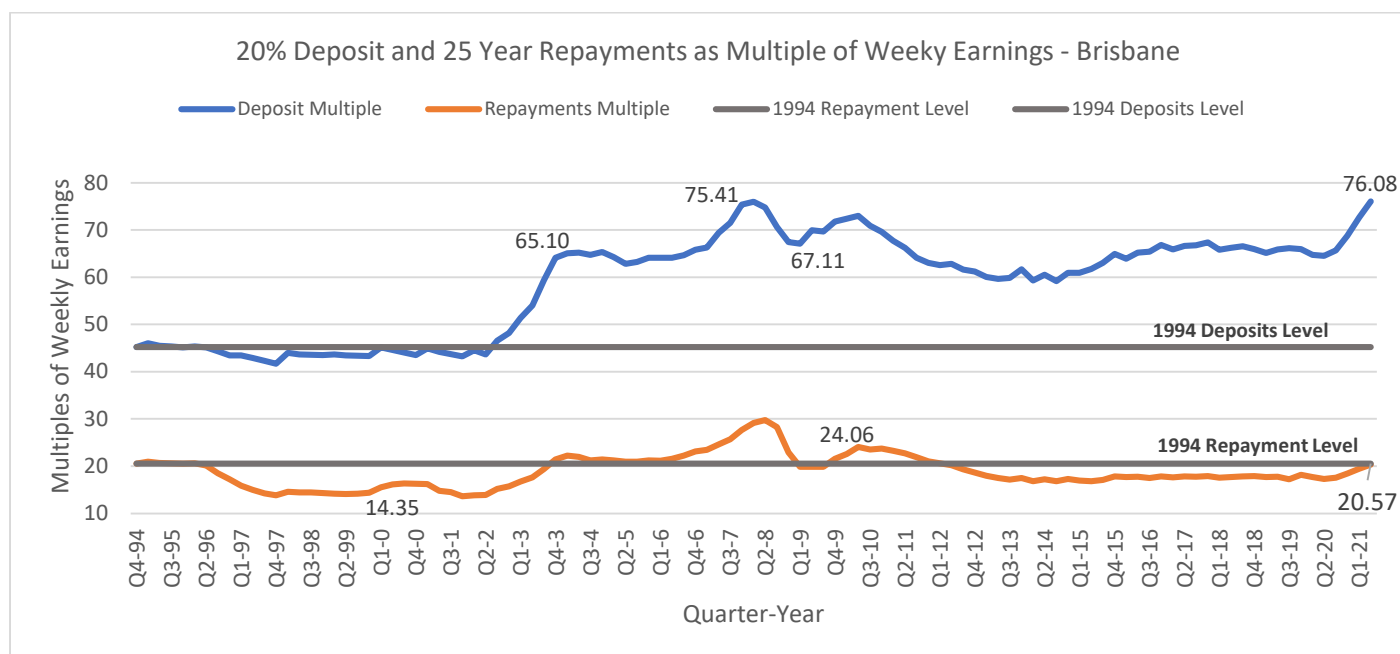
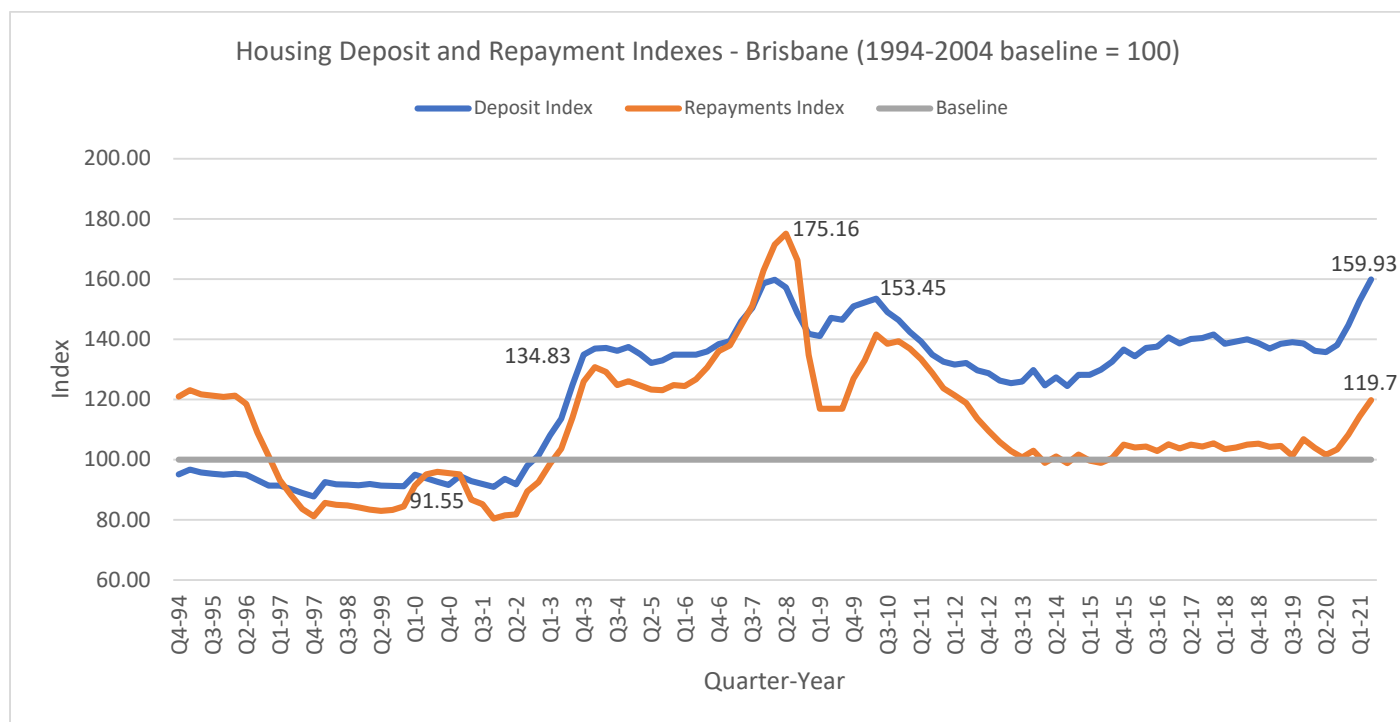
## Deposit and Repayment Costs by State

## Sydney

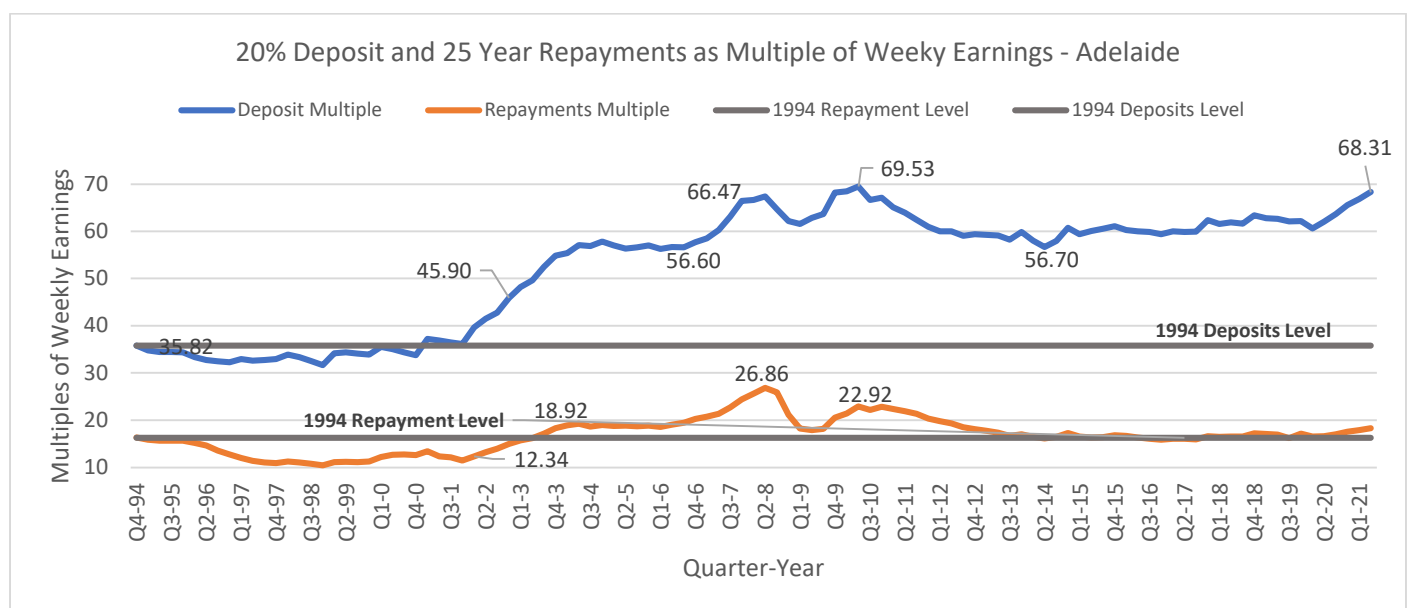
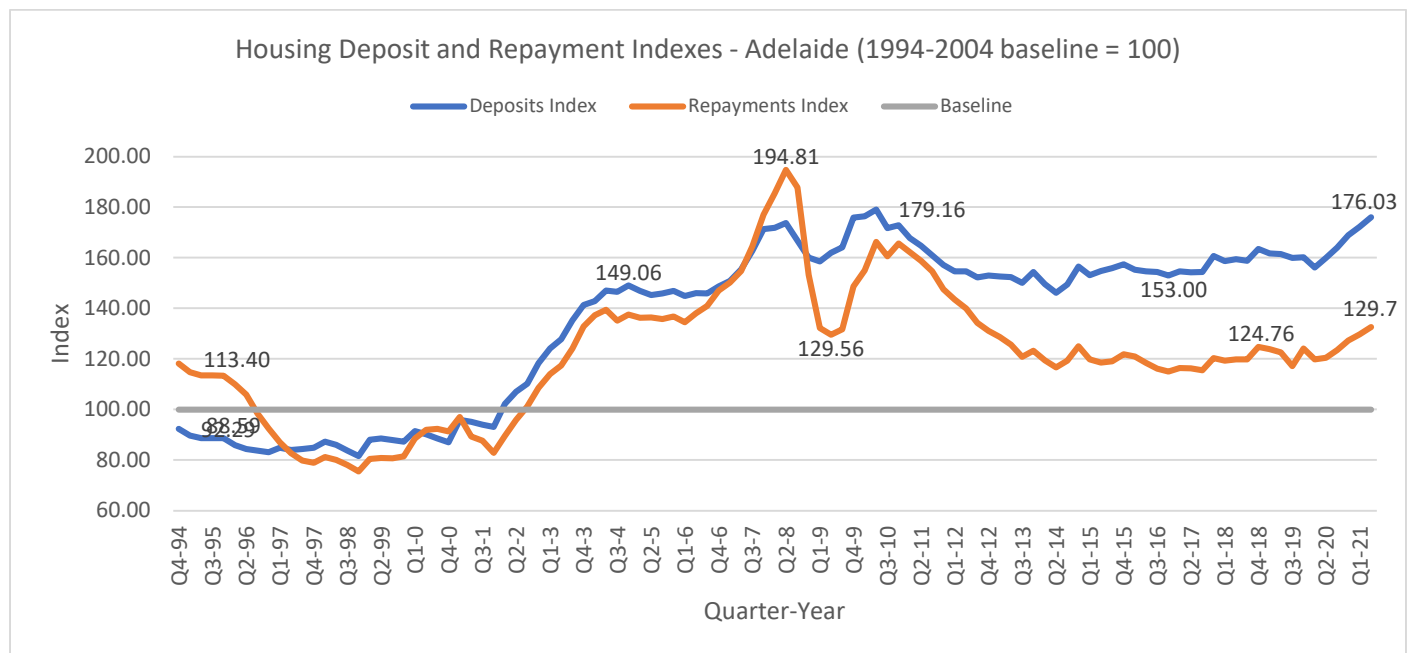


*Melbourne*

## Brisbane

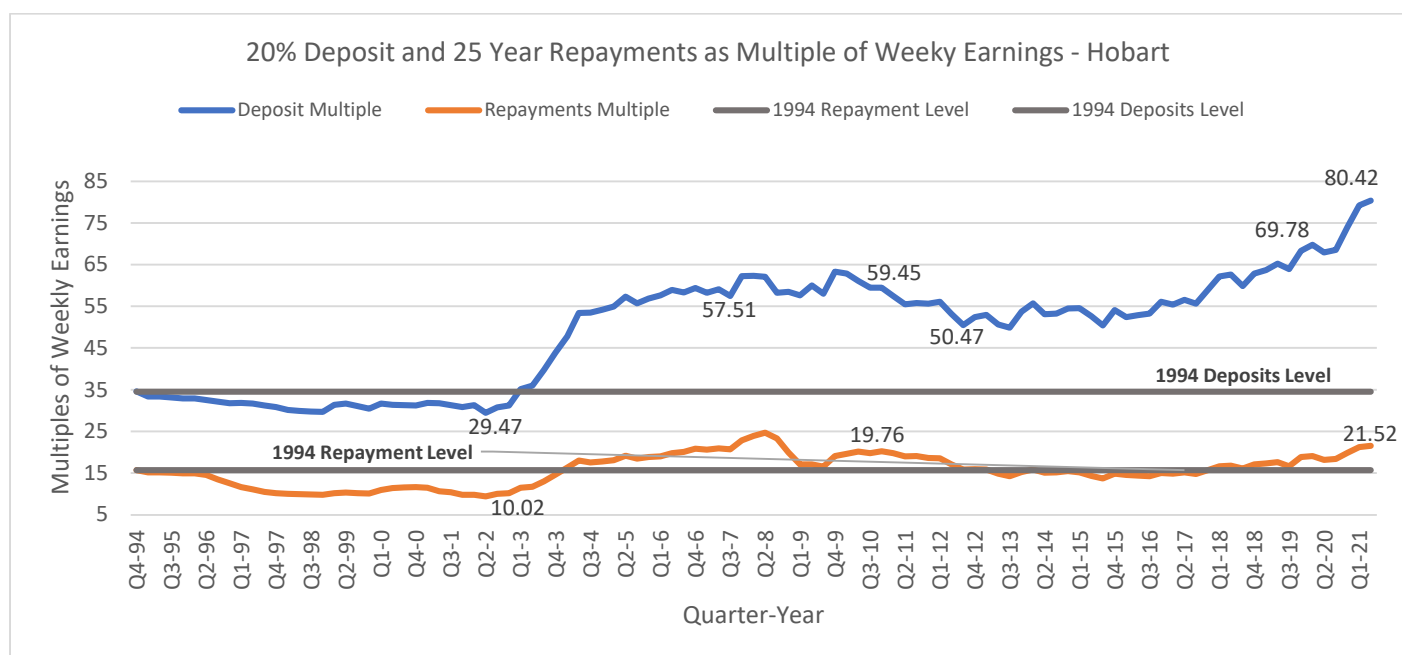
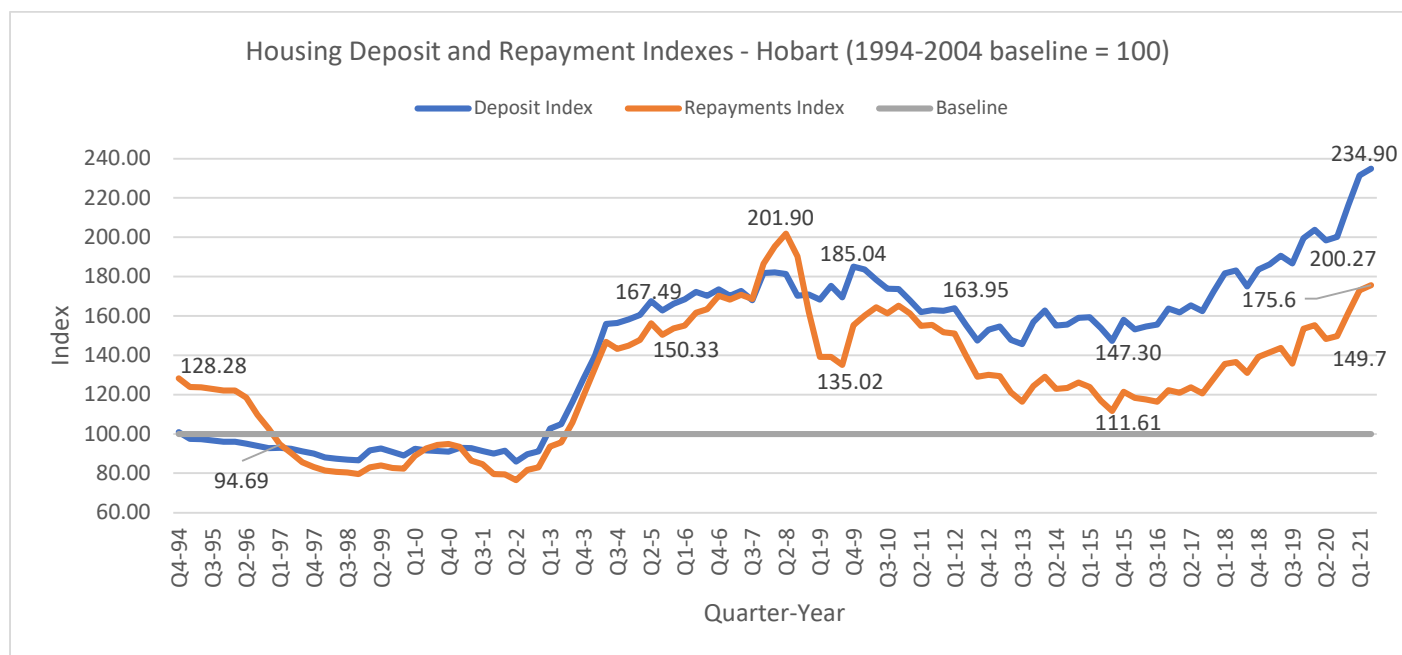


## Adelaide

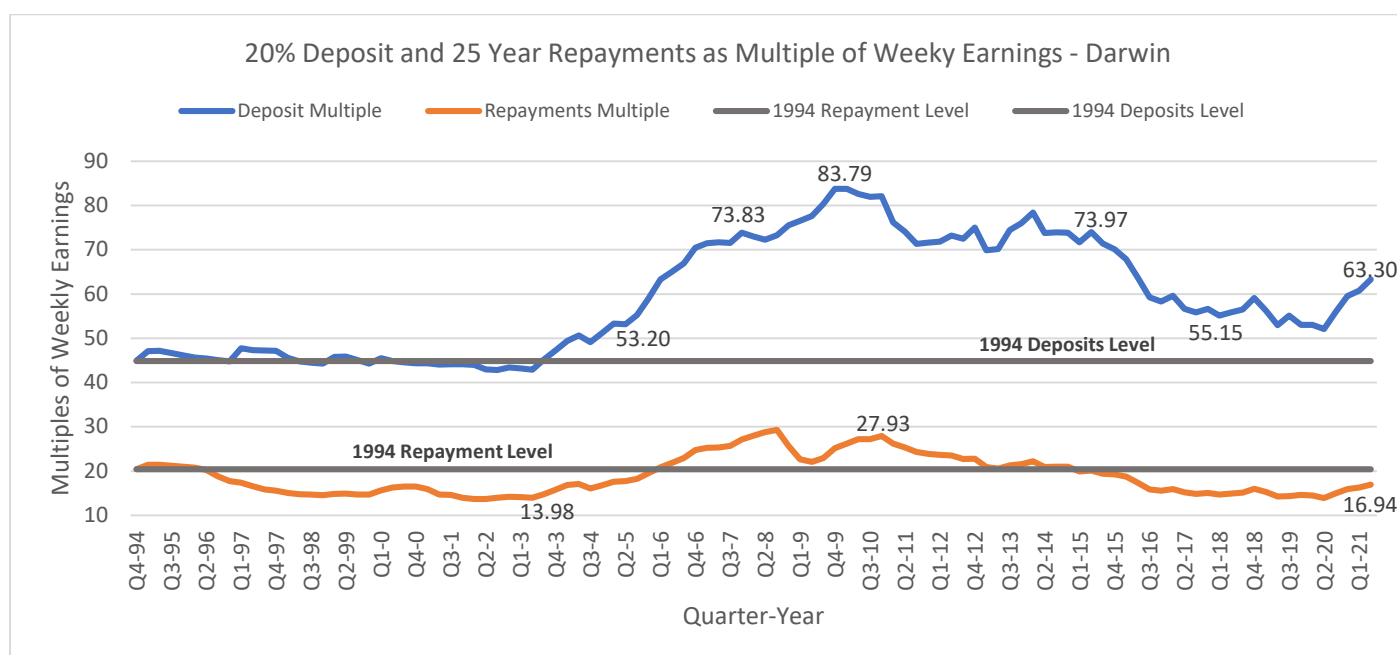
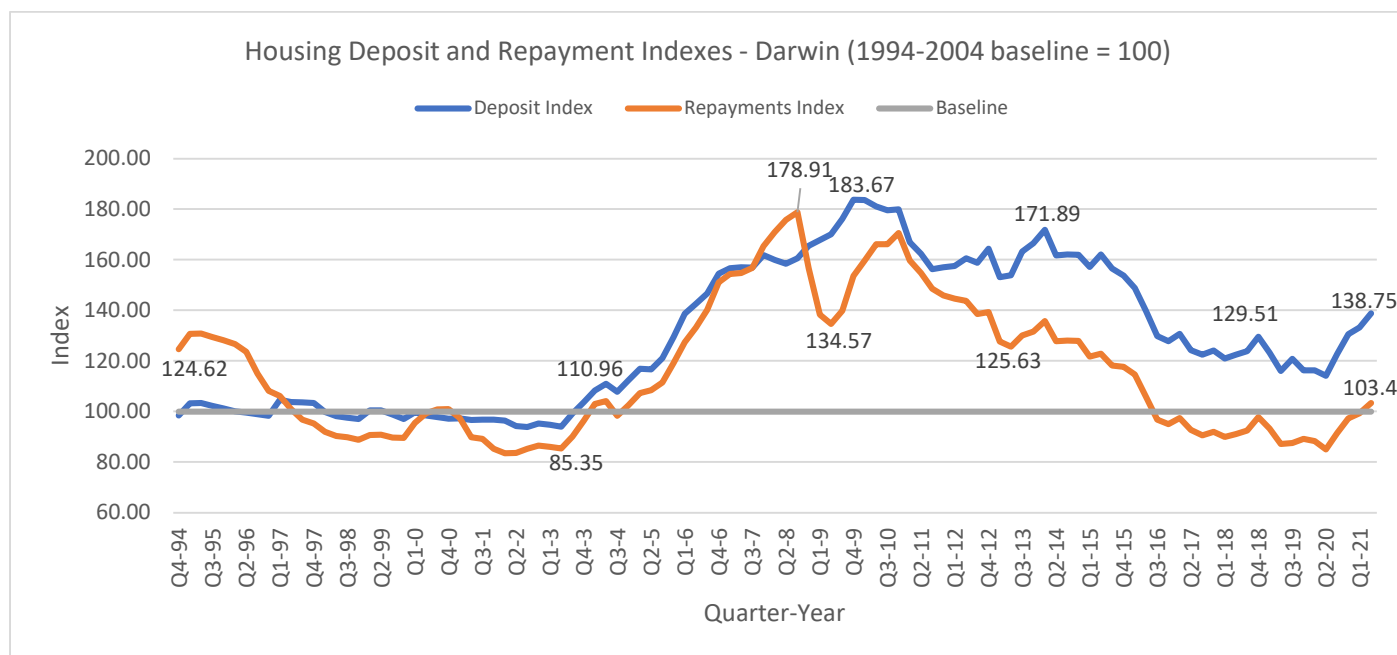




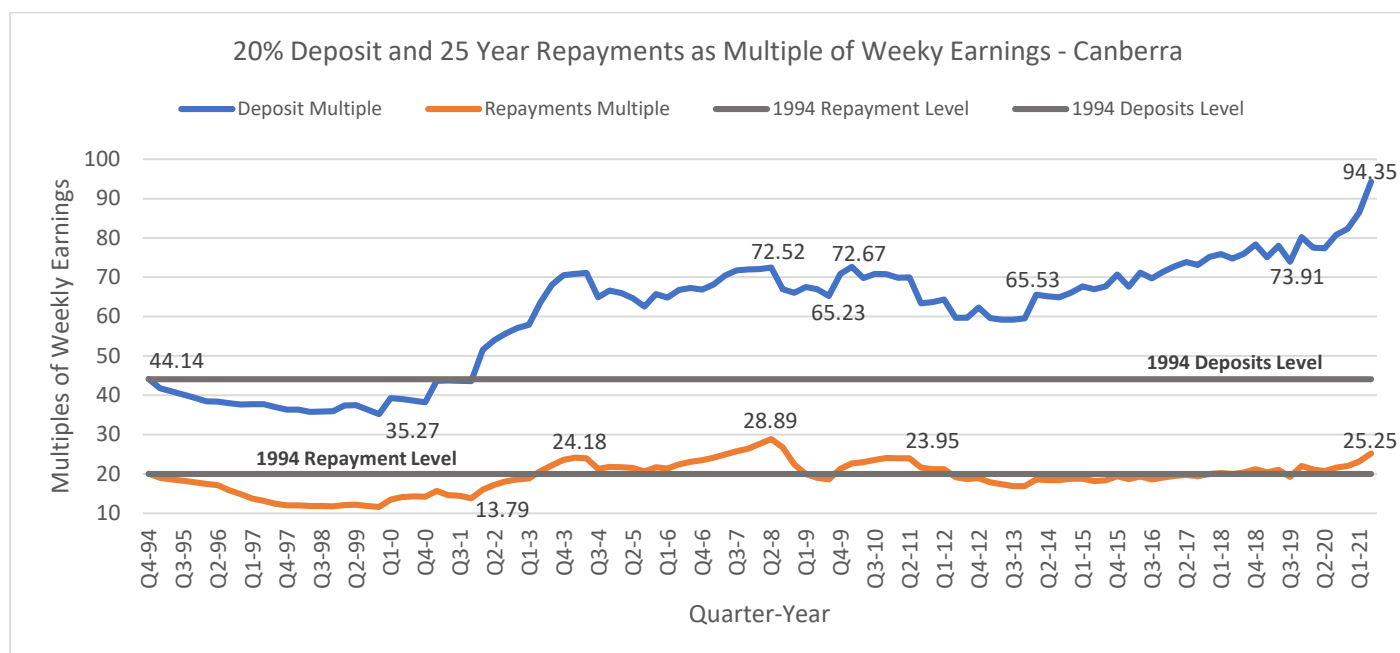
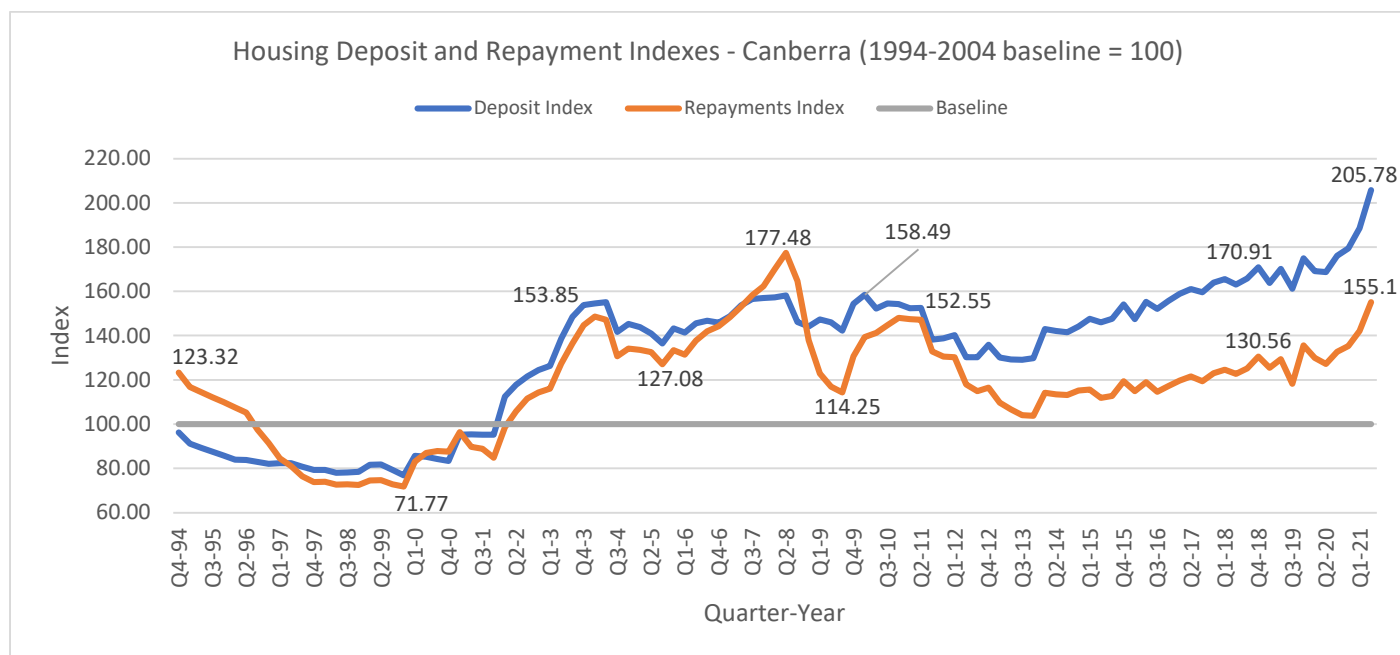
## Hobart



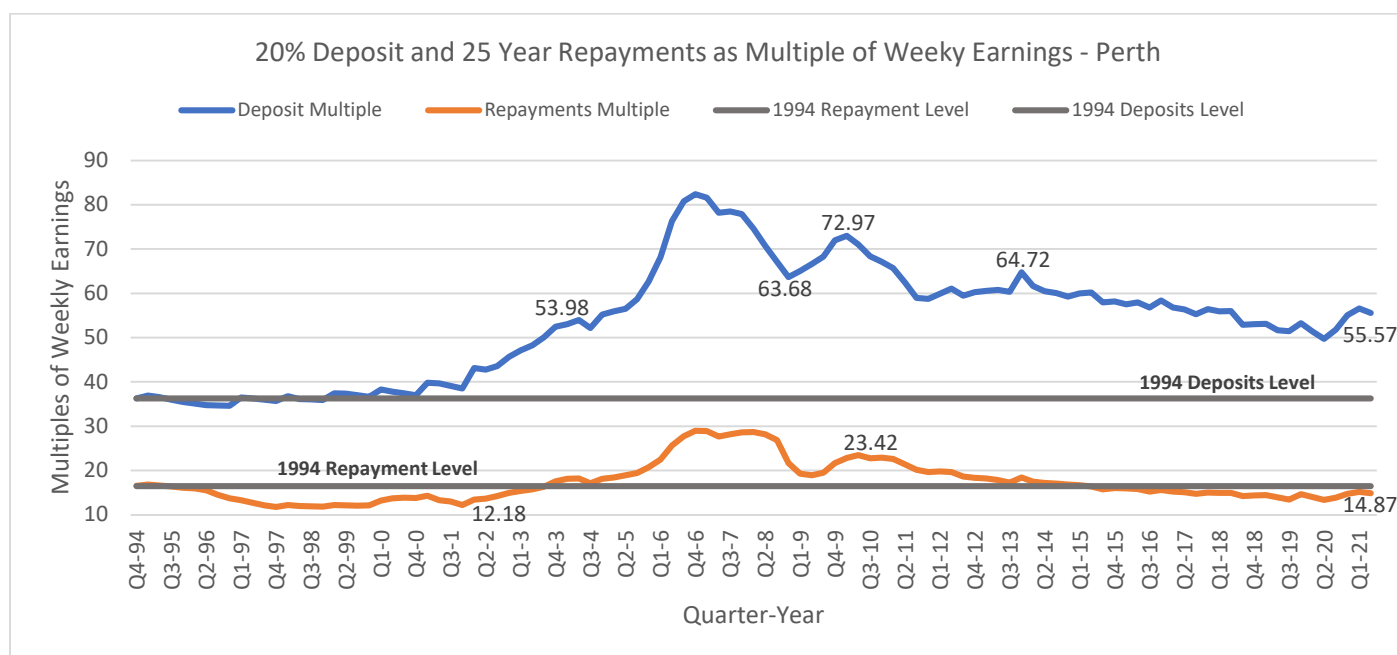
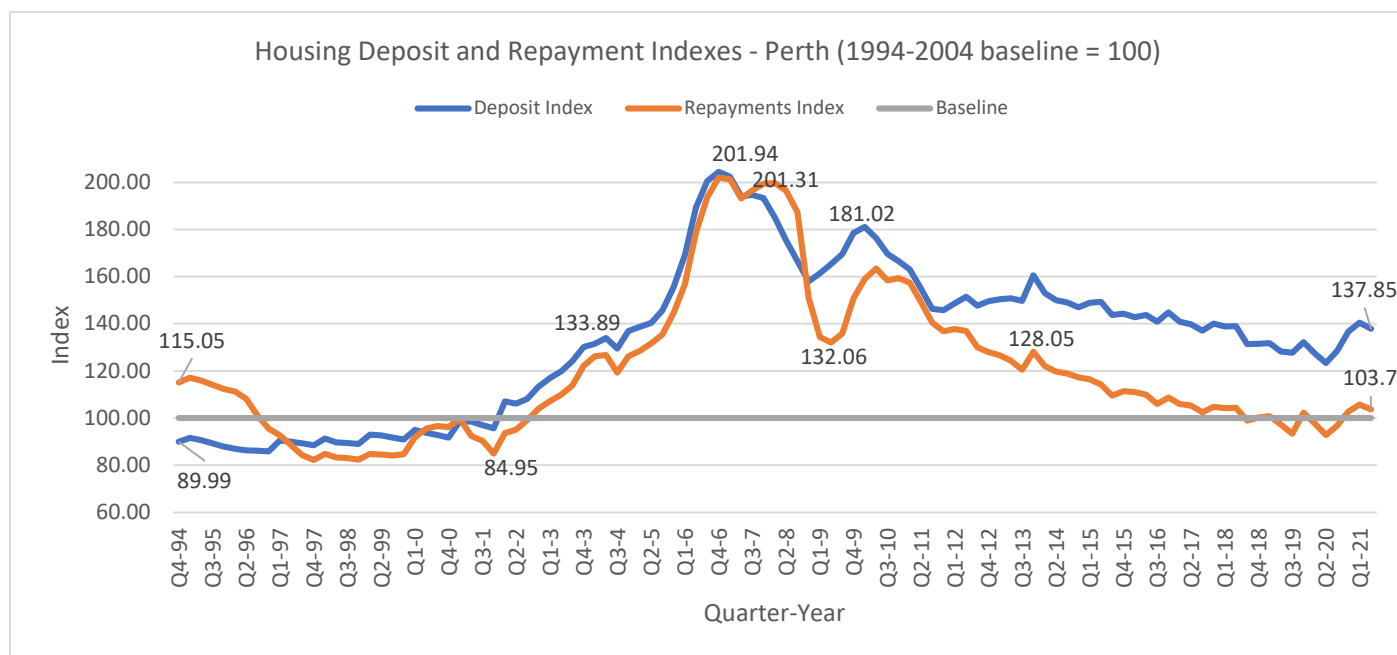
## Darwin



## 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 Q2:2021 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. (June 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. (June 2020 series). *Indicator Lending Rates*. Obtained via: <https://www.rba.gov.au/statistics/tables/xls/f05hist.xls>