



Australian Institute for Progress

# Housing Affordability Index

March Quarter, 2022

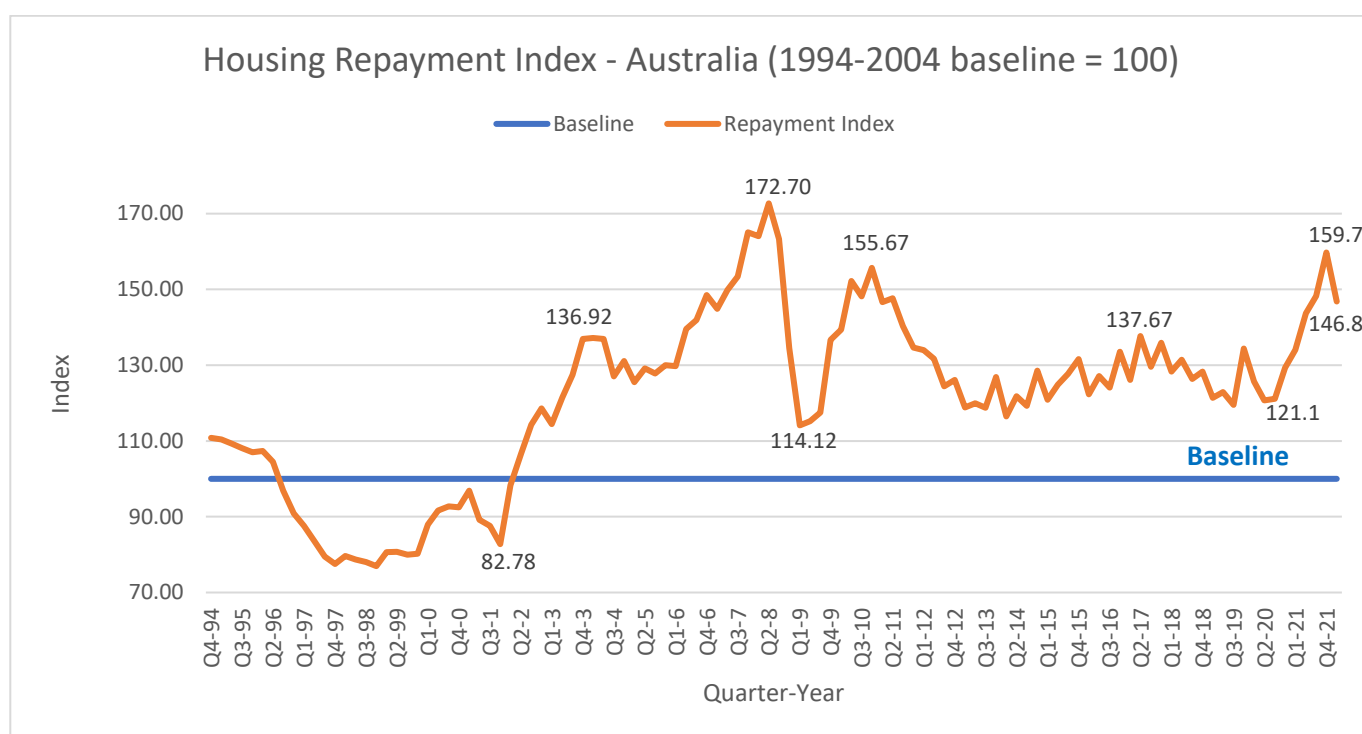
A Quarterly Review of Housing Affordability

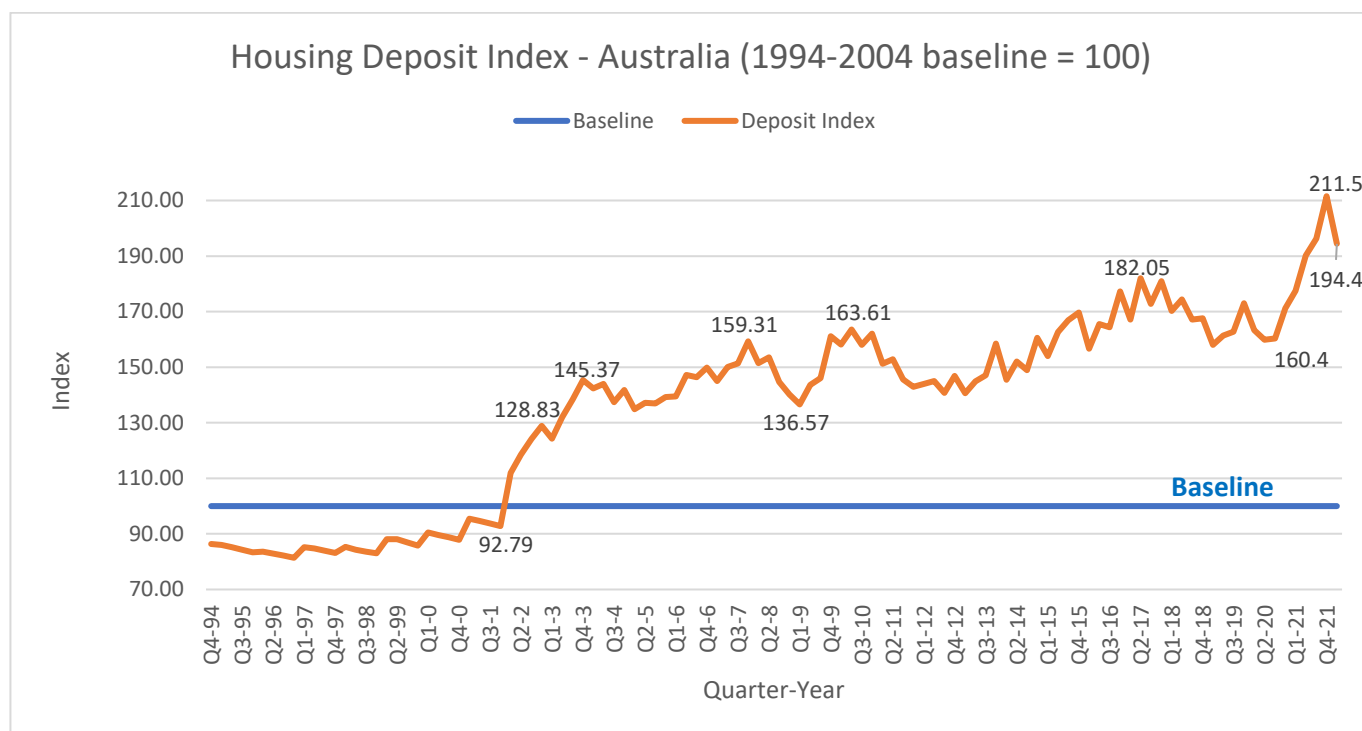
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*The Australian Institute for Progress exists to advance the discussion, development and implementation of public policy for Australia's future, from its base in Brisbane. The future does not look after itself.*

### Highlights

- Repayment affordability has significantly increased during the 1st quarter of 2022, with the repayment index decreasing (increase in affordability) from 159.7 to 146.8.
- Deposit affordability also improved over the 1st quarter, with the deposit index decreasing (increase in affordability) from 211.5 to 194.4.
- The change in deposit and repayment costs is attributable to a decrease in median house prices by \$72,940.6 (-7.84%).
- The changes in housing affordability are highly variable depending on the city, with the repayment index decreasing by 18.3 in Melbourne showing an increase in housing affordability and increasing by 4.9 in Canberra, showing a decrease in housing affordability.
- Interest rates were at record lows for this quarter and had not started to increase. To model the possible effects on housing affordability of rising interest rates we modelled what affordability would have been if the RBA had moved a quarter earlier to increase rates. This shows that house prices will have to fall still further to ameliorate the pain, given rising interest rates.





## Summary

The 2022 Quarter 1 Australian housing market saw mixed changes in affordability of both housing deposits and repayments depending on the capital cities. Aggregating across Australia, national housing repayment and deposit affordability improved by 17.1 and 13.0 index points respectively. The increase in national housing affordability is the result of a quarterly fall in median house prices (-\$72,940). However, changes in median house prices varied between capital cities. While both Sydney and Melbourne experienced a decline in house prices, by \$95,000 and \$105,000 respectively, the other capital cities all experienced nil to small increases in house prices.

The changes in house prices between cities is reflected by the relative declines in market activity. Although all major cities throughout Australia had a decline in the number of housing transfers, the decline was most significant in Canberra, Melbourne, Sydney, and Brisbane. As a result, Adelaide, Hobart, Darwin, and Perth made up proportionally more of the total transfers in Australia over 2022Q1. Most notably, the number of housing transfers in Melbourne, as a share of total housing transfers, fell 27% to 22% while in Perth this figure rose from 13% to 18%.

The total number of weeks to raise a deposit, given a 10% savings rate and \$1,805 average weekly wages, now averages 946 weeks across Australia, having decreased by 83 weeks over the March quarter. As with house prices, the change in the number of weeks to raise a deposit varies significantly by city, with an increase of 30 weeks in Canberra and a decrease of 115 weeks in Sydney.

	<i>Deposit Index</i>		<i>Repayment Index</i>	
<b>Sydney</b>	193.5	(-14.8)	146.7	(-11.2)
<b>Melbourne</b>	214.5	(-24.2)	162.5	(-18.3)
<b>Brisbane</b>	190.0	(4.2)	142.3	(3.2)
<b>Adelaide</b>	202.5	(0.0)	152.5	(0.0)
<b>Hobart</b>	276.2	(0.7)	206.5	(0.5)
<b>Darwin</b>	147.0	(2.5)	109.5	(1.8)
<b>Canberra</b>	229.3	(6.5)	172.9	(4.9)
<b>Perth</b>	147.9	(-2.5)	103.7	(-1.9)
<b>Average</b>	194.4	(17.1)	146.8	(-13.0)

Modelling a counterfactual where the RBA raised rates a quarter earlier than they did yields the following table where we have compared previous peaks in unaffordability with the modelled counterfactual figures. This suggests that for Australians living anywhere but Perth housing is going to continue to be relatively unaffordable with the current increases in affordability more than wiped out without further drops in housing prices.

	<i>Historical Highest Peak</i>		<i>Modelled Peak</i>
	<i>Historical Repayment Index</i>	<i>Year</i>	<i>Repayment Index Now</i>
<b>Sydney</b>	157.9	2021	166.1
<b>Melbourne</b>	180.8	2021	184.0
<b>Brisbane</b>	175.2	2008	161.1
<b>Adelaide</b>	194.8	2008	172.7
<b>Hobart</b>	205.9	2021	233.8
<b>Darwin</b>	170.9	2008	124.0
<b>Canberra</b>	177.5	2008	195.7
<b>Perth</b>	201.3	2007	117.4
<b>Average</b>	172.7	2008	166.2

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.



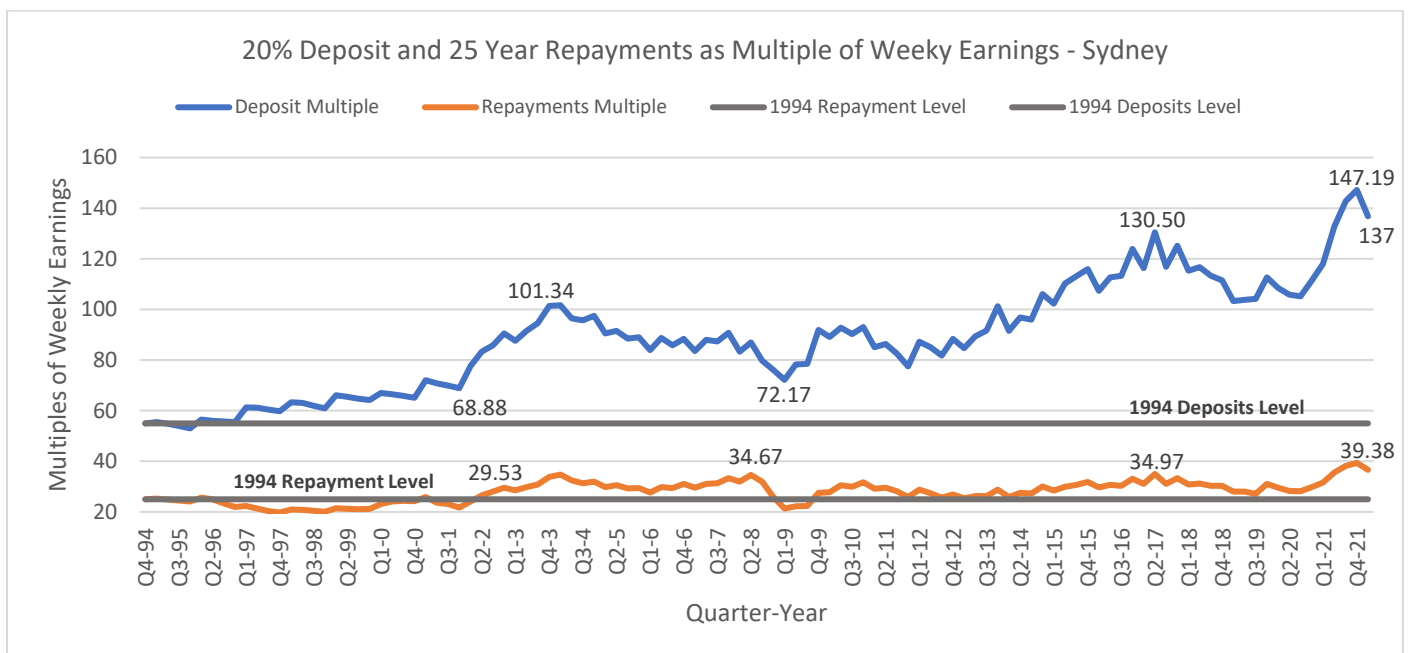
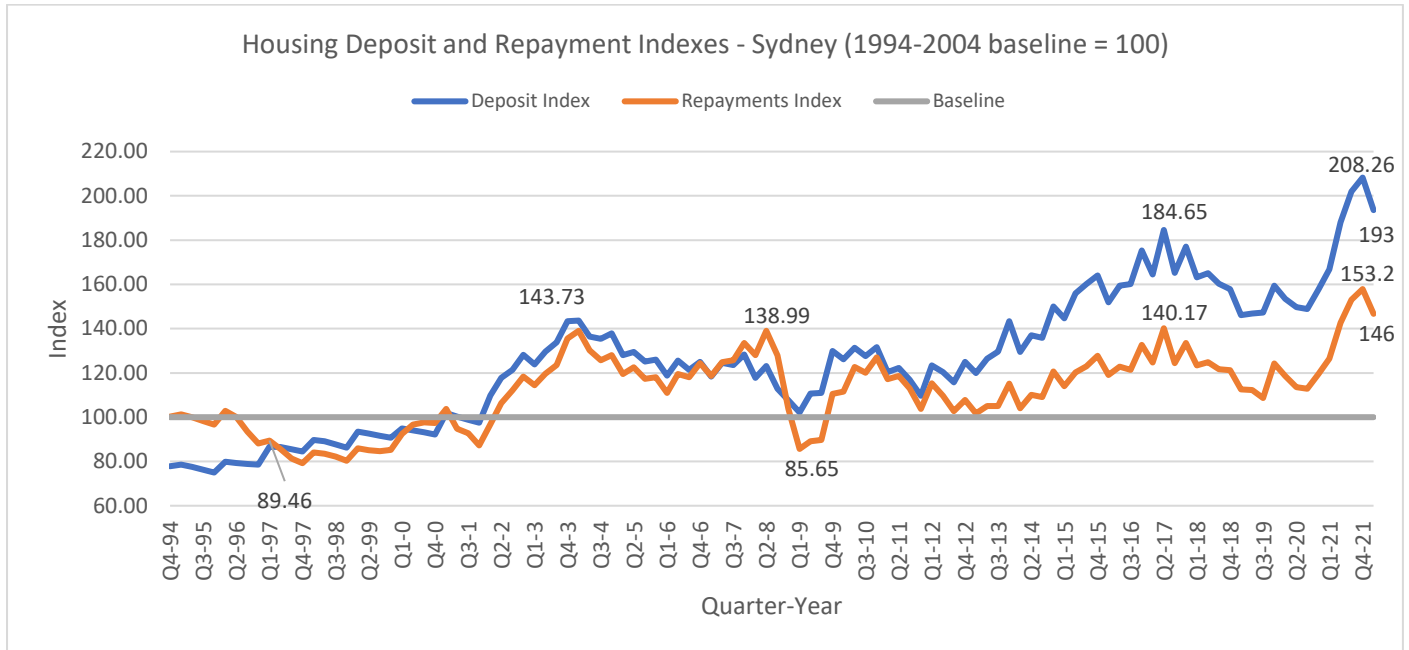
Graham Young  
Executive Director  
**Australian Institute for Progress**



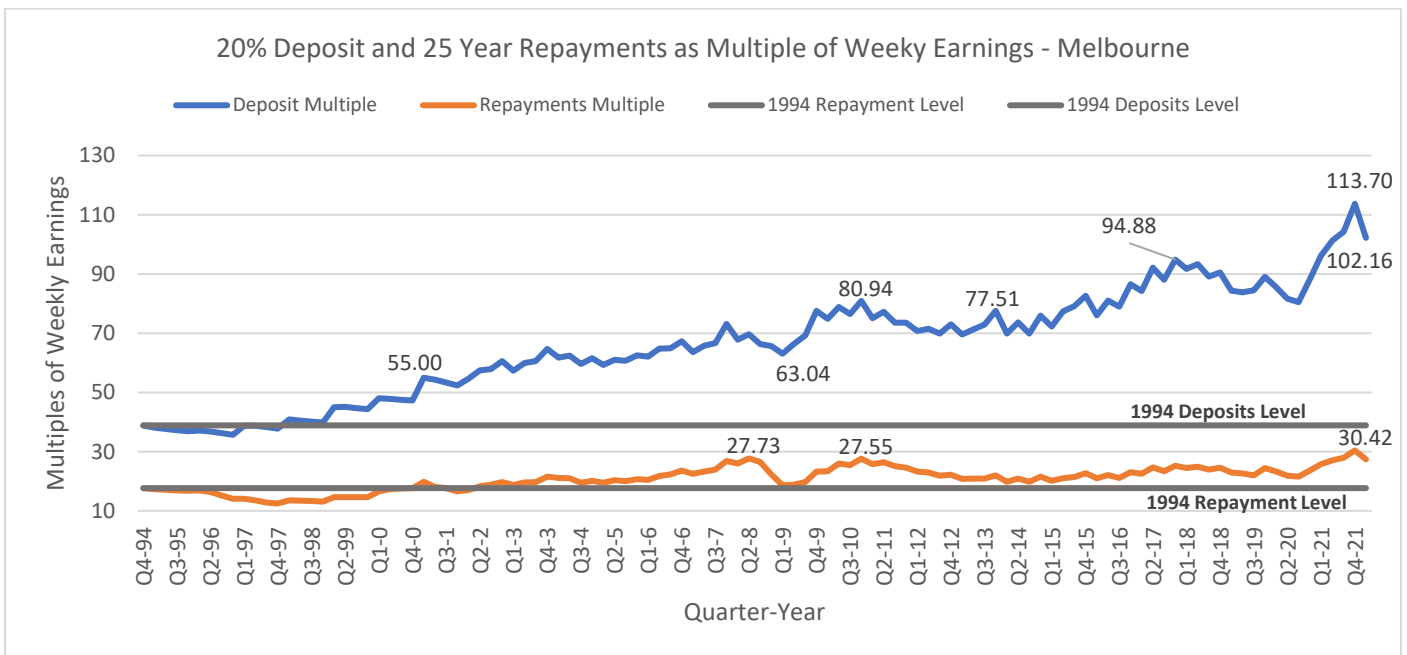
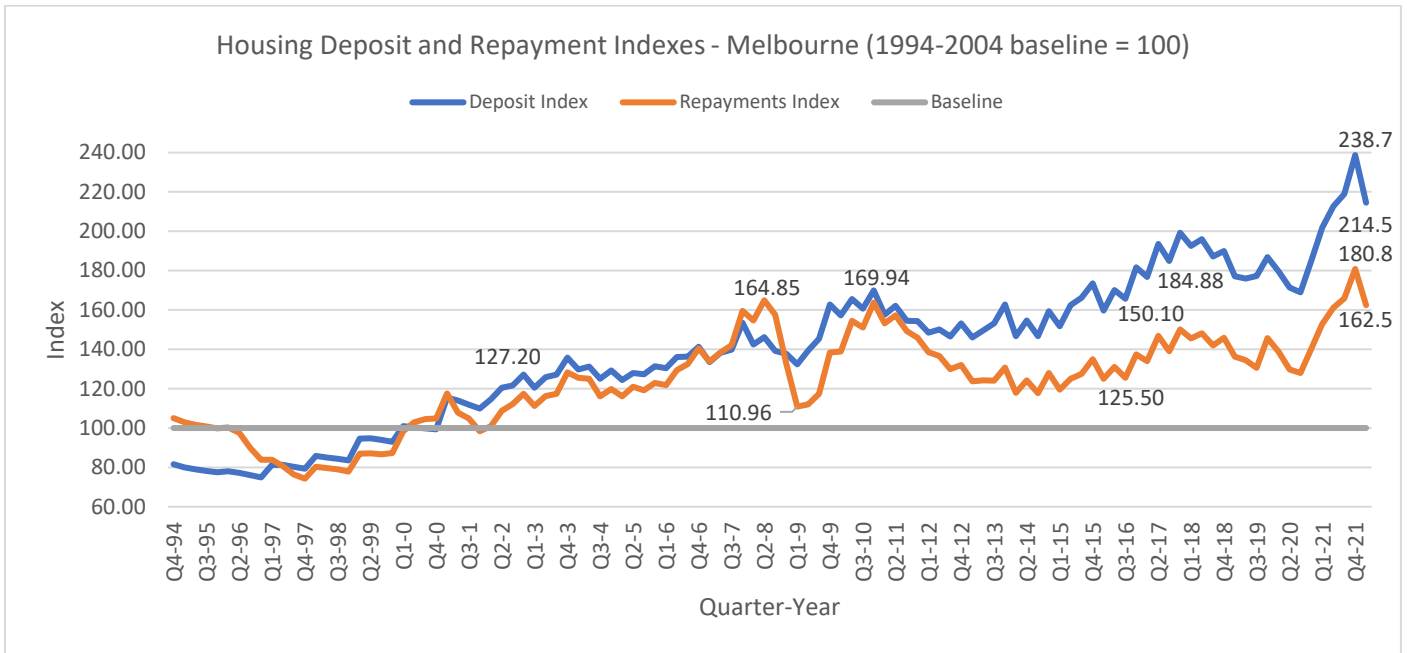
Nicholas Umashev  
Economic Researcher  
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Deposit and Repayment Costs by State

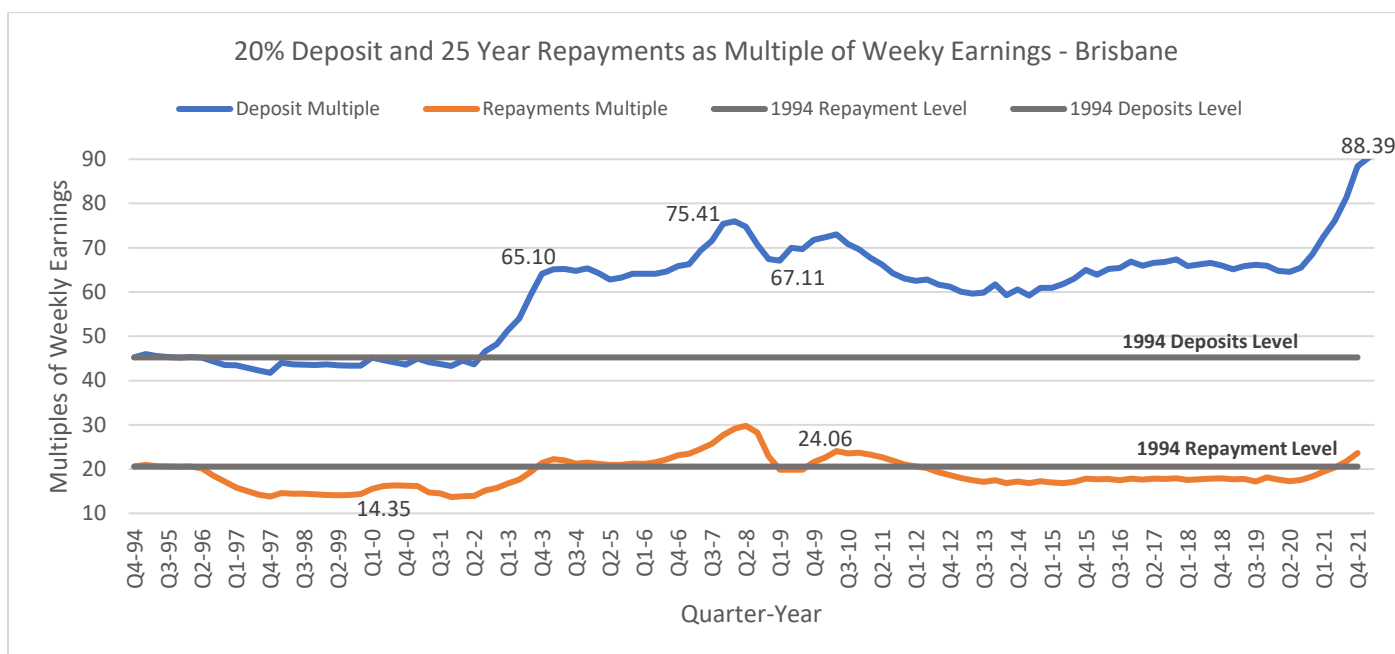
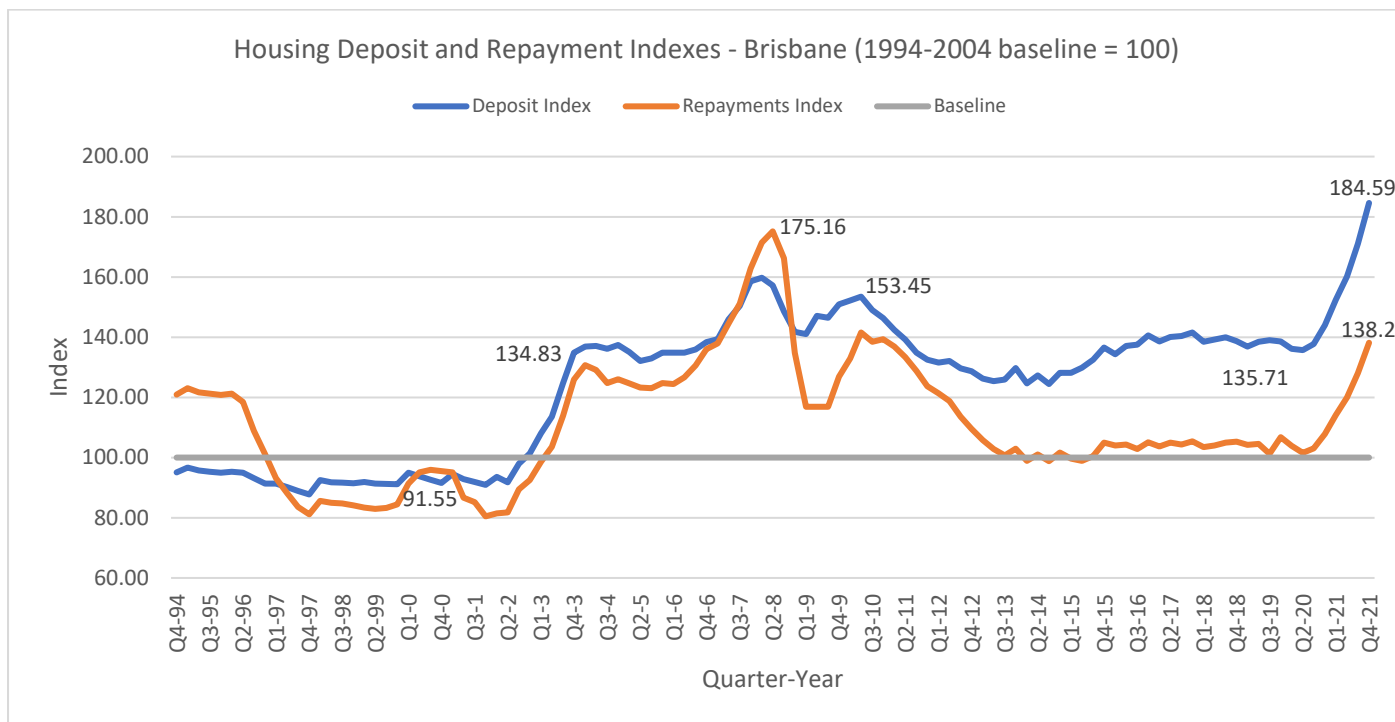
Sydney



Melbourne

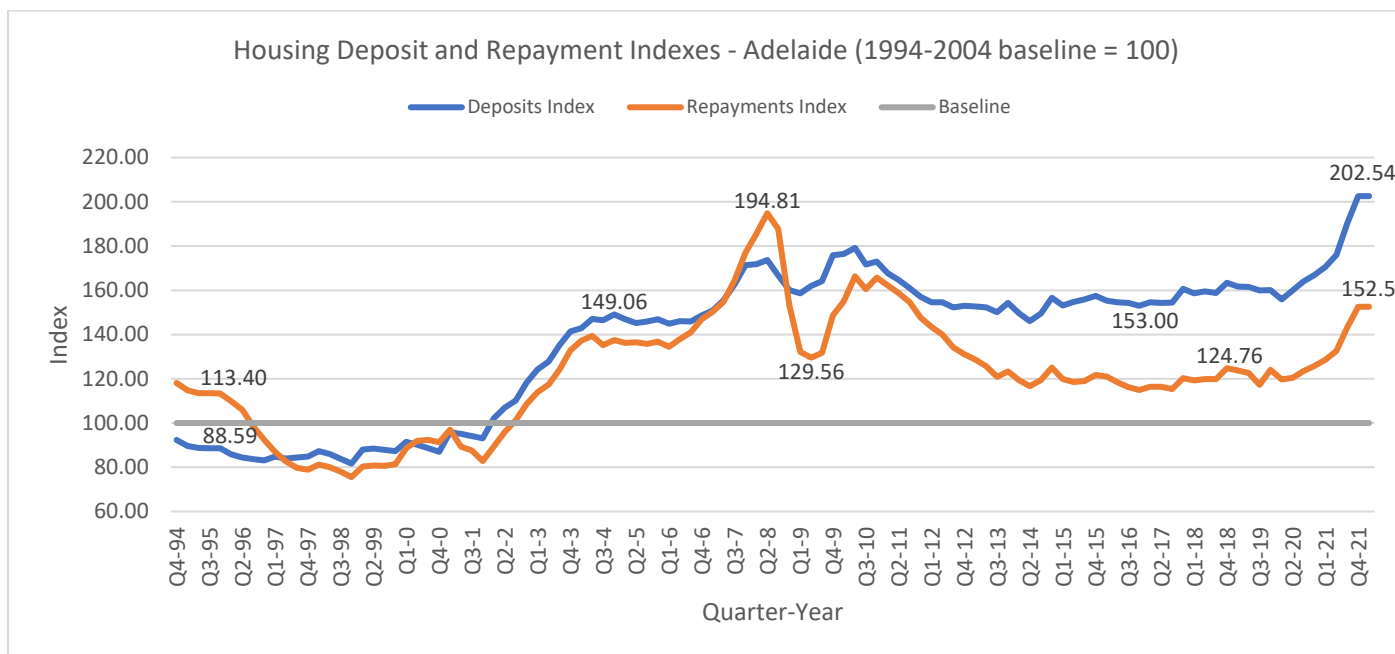
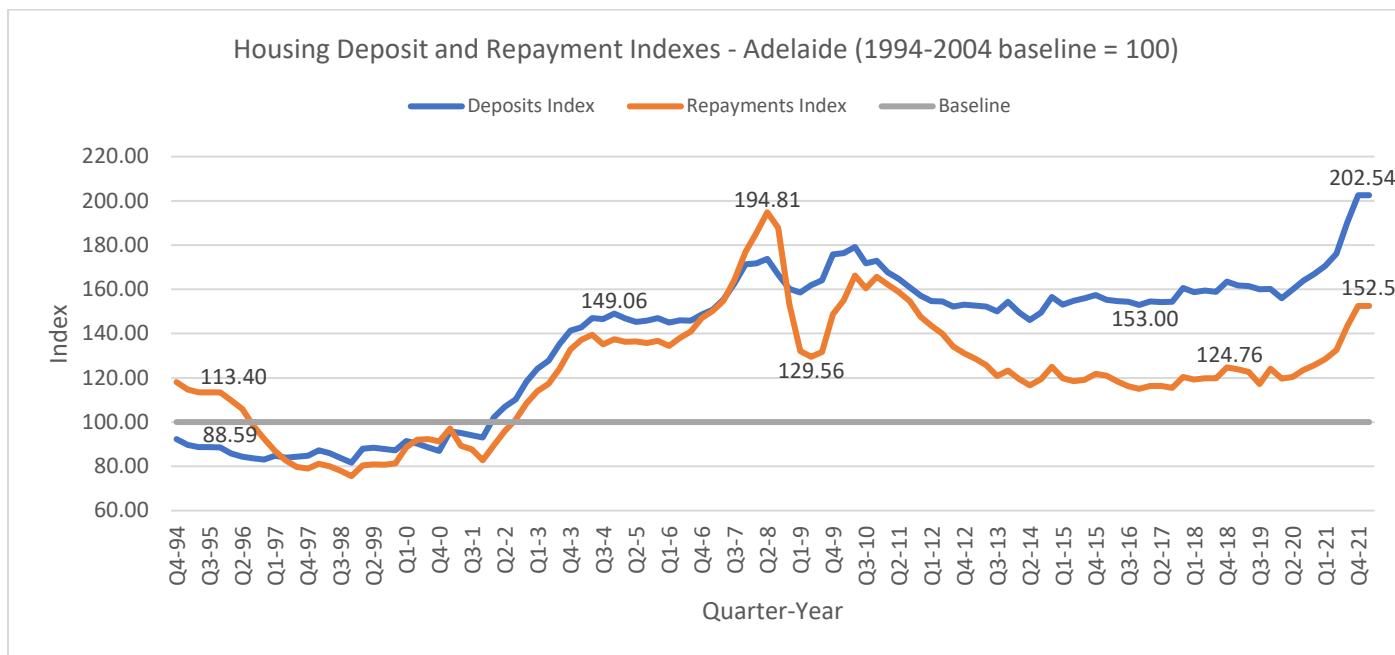


Brisbane

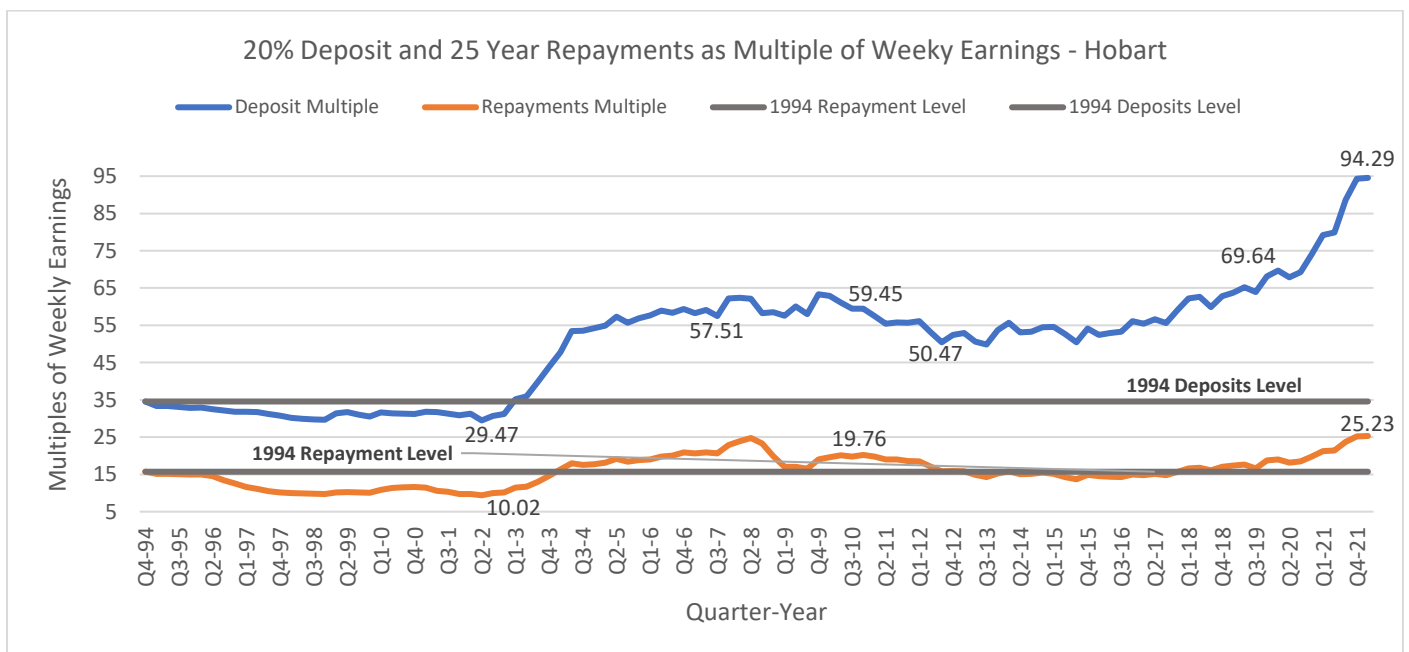
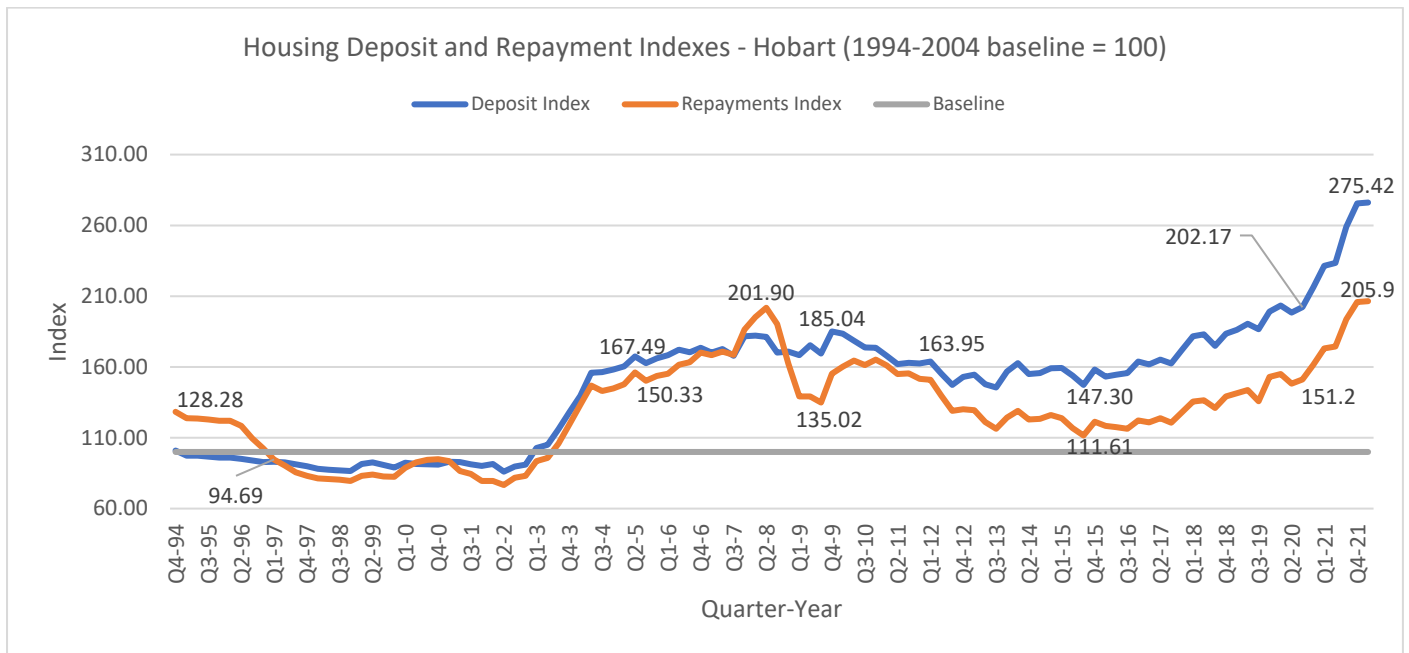




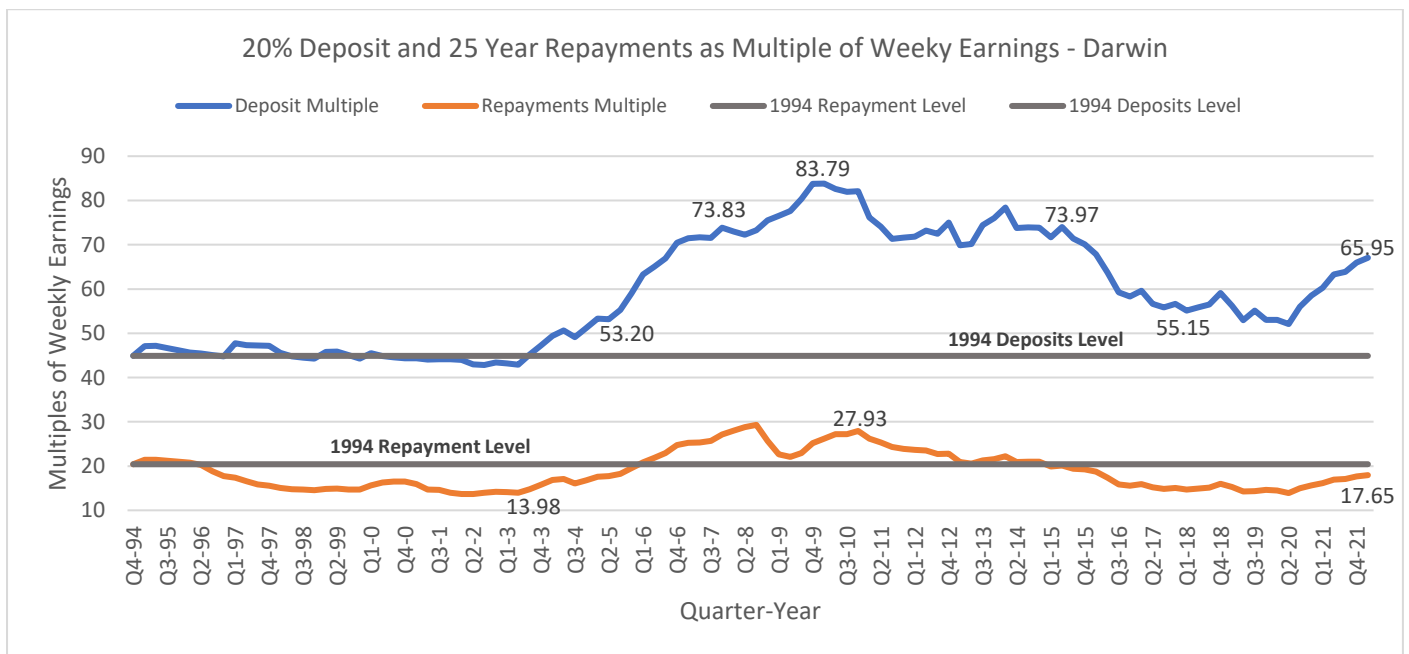
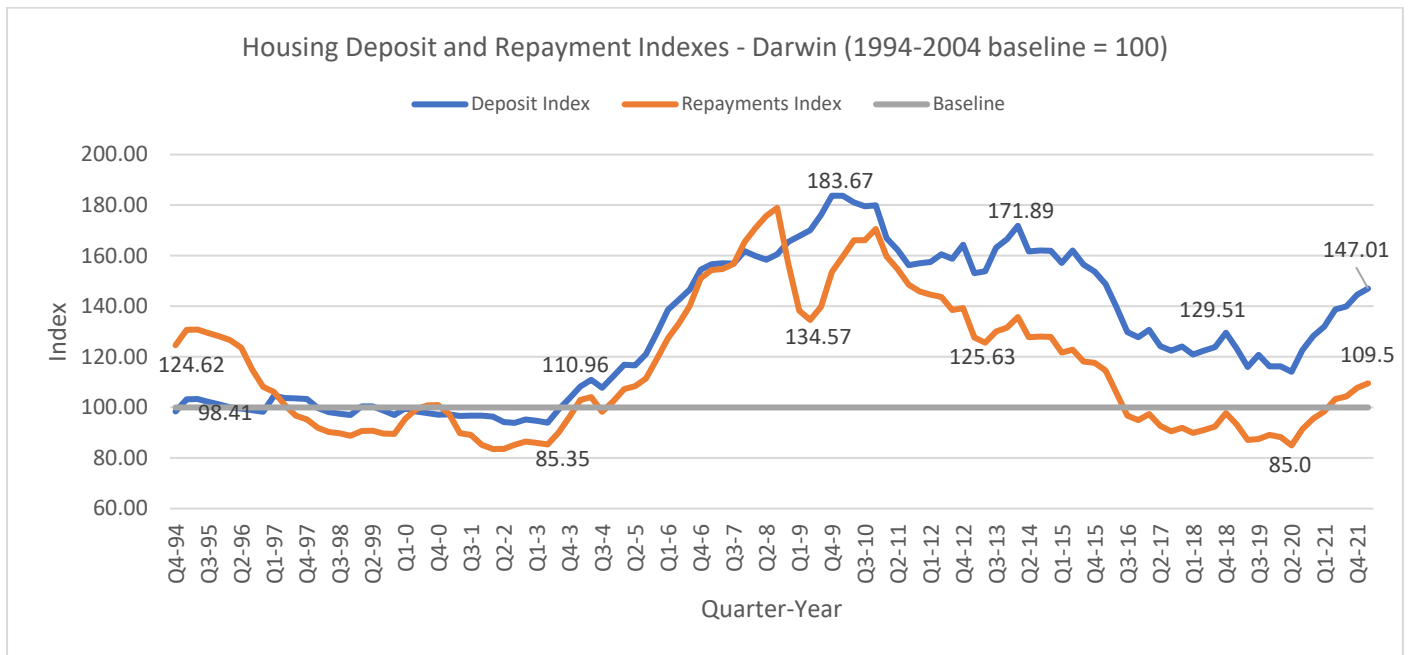
Adelaide



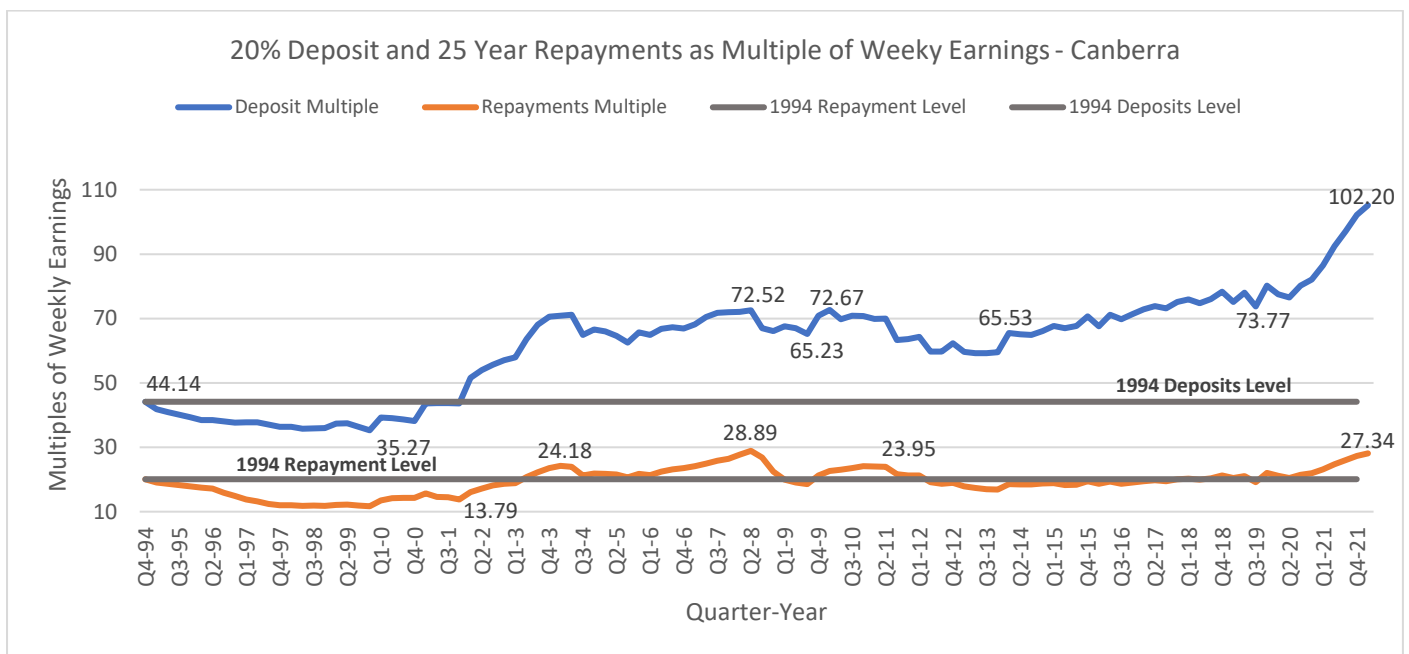
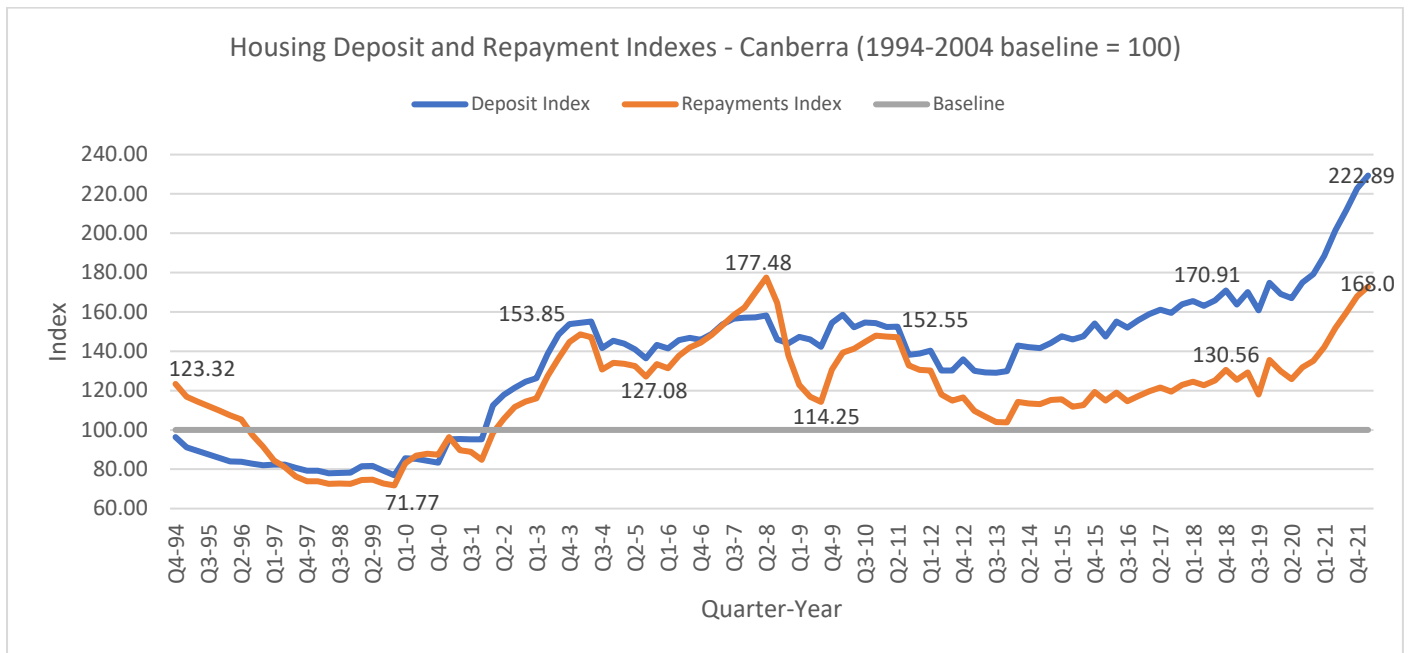
Hobart



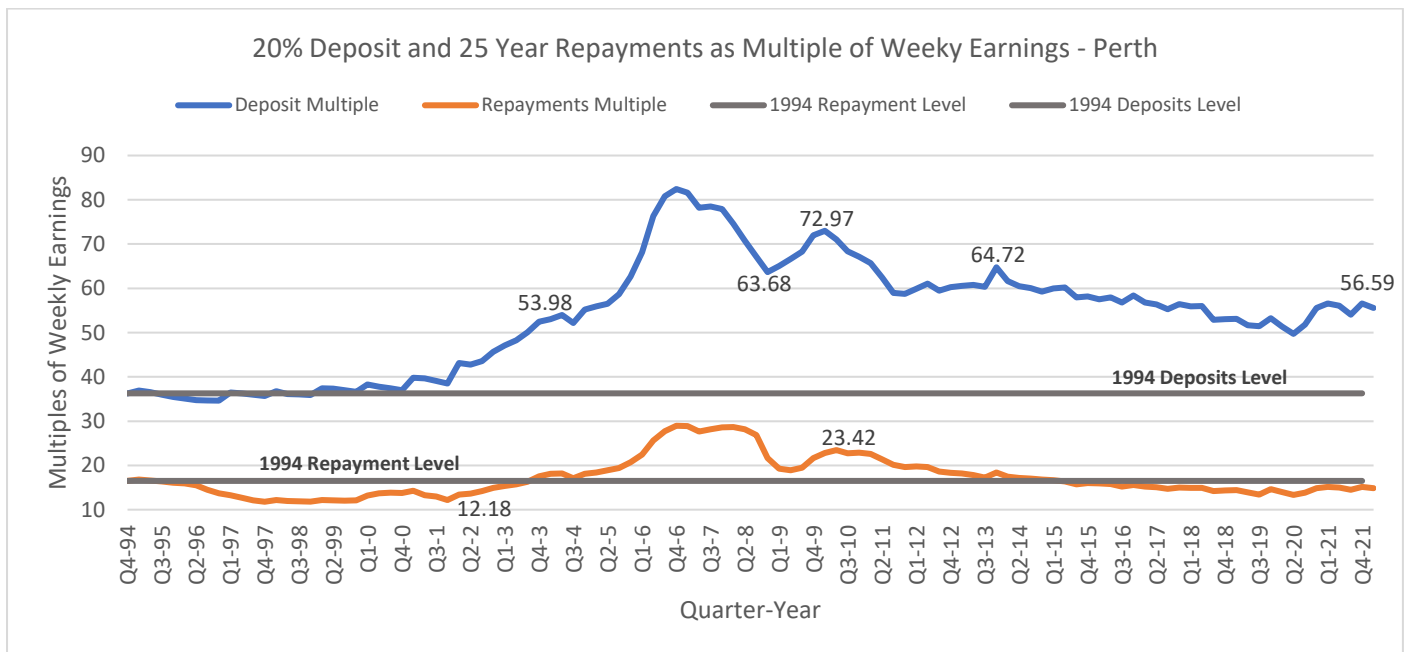
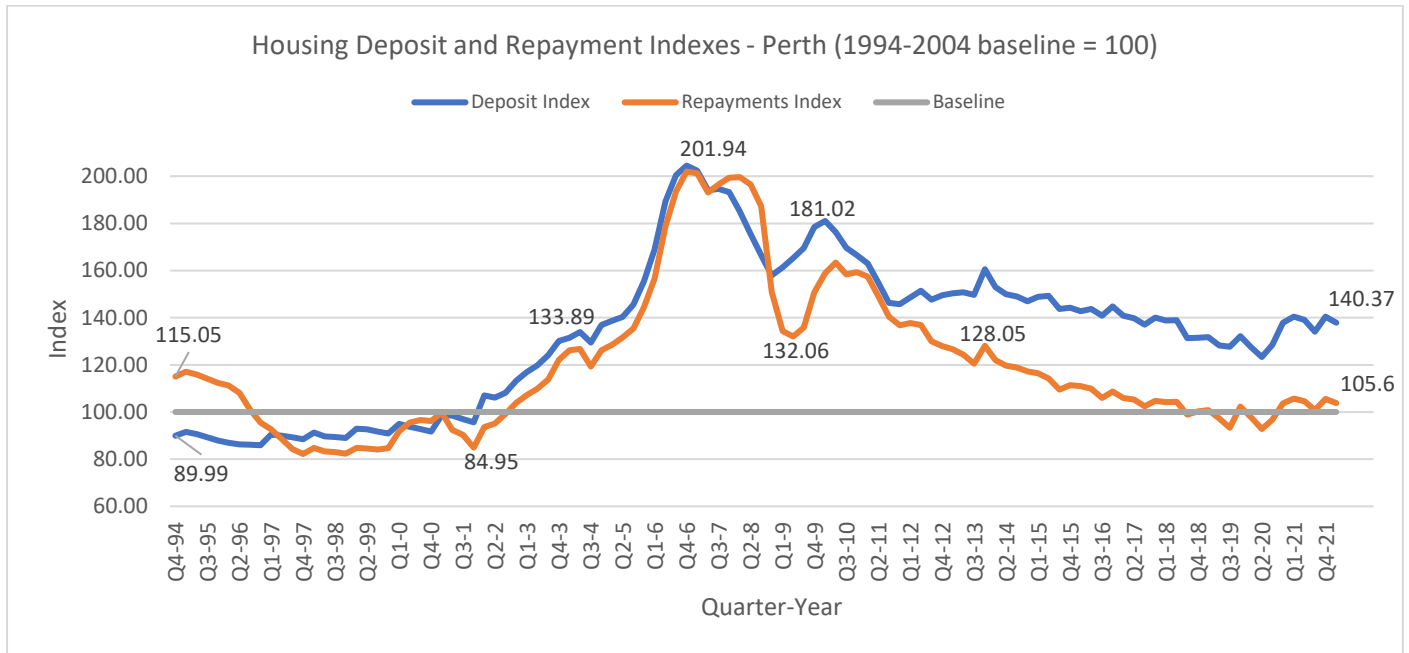
Darwin



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 Q1:2022 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. (March 2022 series). *Total Value of Dwellings*. Obtained via: <https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/total-value-dwellings/latest-release>
3. ABS 6302. (November 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. (April 2022 series). *Indicator Lending Rates*. Obtained via: <https://www.rba.gov.au/statistics/tables/xls/f05hist.xls>