



Australian Institute for Progress

Housing Affordability Index

December Quarter, 2020

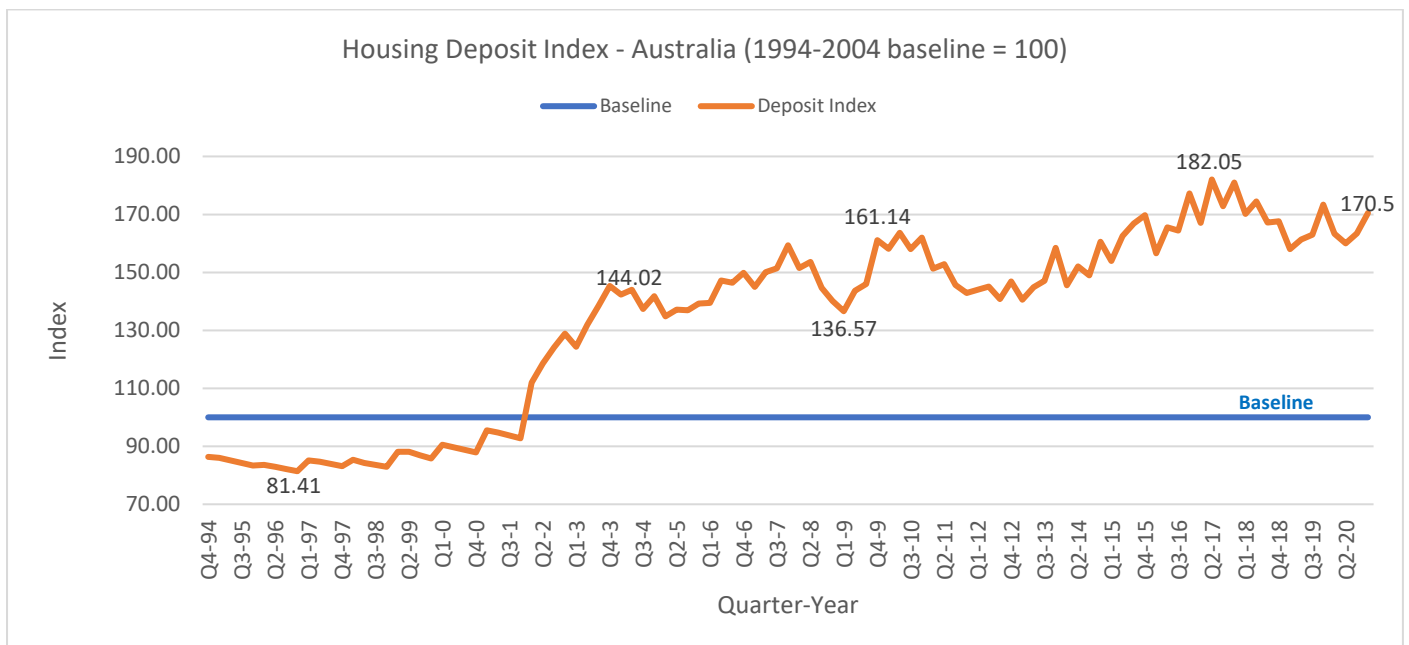
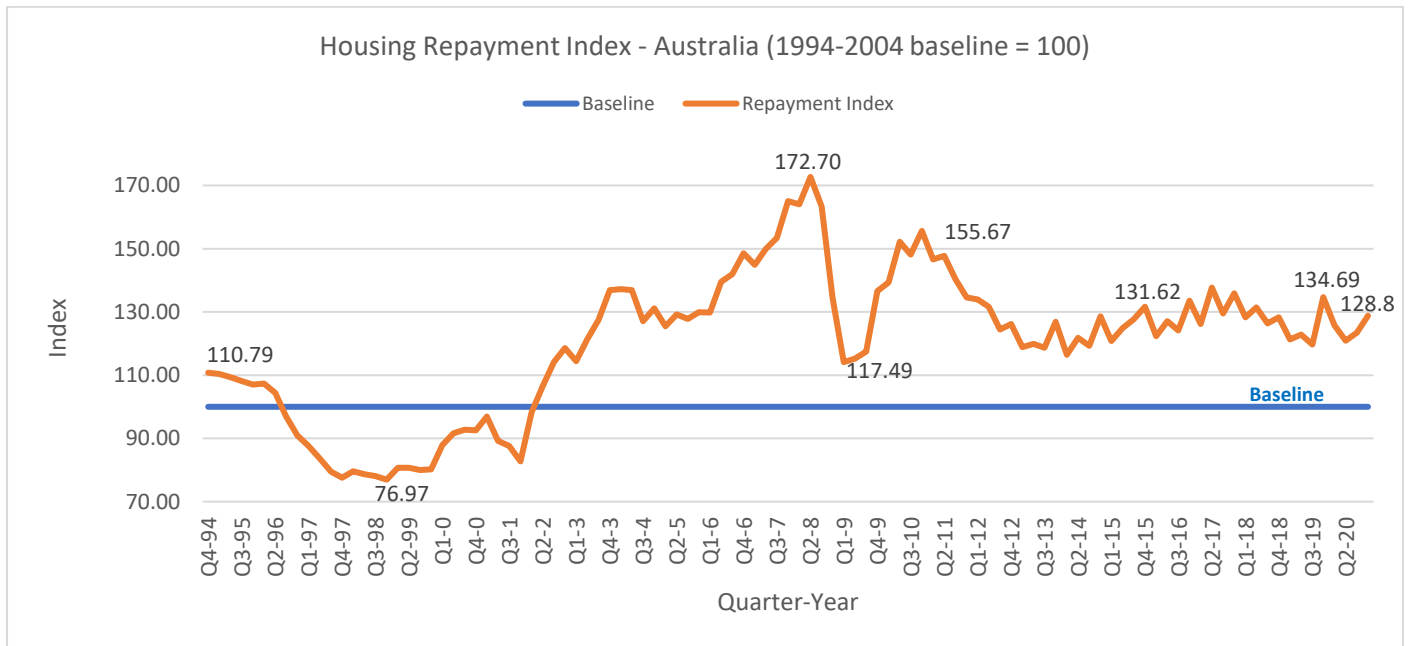
A Quarterly Review of Housing Affordability

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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 4th quarter of 2020, with the repayment index increasing from 123.5 to 128.8.
- Deposits costs also increased over the 4th quarter, with the deposit index increasing from 163.55 to 170.5.
- The change in deposit and repayment costs is attributable to an increase in median house prices by \$32,192 (4.6%) across Australia, with Canberra experiencing the greatest median house price increased followed by Melbourne.



Summary

The 2020 Quarter 4 Australian housing market saw a large decrease in affordability of both housing deposits and repayments across all capital cities. Aggregating across Australia, national housing repayment and deposit costs increased by 7.0 and 5.3 index points respectively. The decrease in national housing affordability is largely the result of rising median house prices (\$32,192 over this quarter), stagnant owner-occupier lending rates of 4.52%, and stagnant average weekly wage increases (\$5 over this quarter).

The total number of weeks to raise a deposit, given a 10% savings rate, now averages at 830 weeks across Australia, having increased by 34 weeks over the December quarter. The increase in the number of weeks to raise a deposit varies significantly by city, with large increase of 32 weeks for Melbourne and slight increase of 8.7 weeks in Darwin. That all but 2 cities had quarterly increase in weeks to raise a deposit that exceeds the 12 weeks in the recent quarter highlights the challenge of saving for a house.

Housing is starting to get expensive on a repayment affordability basis, although this differs from state to state. Brisbane and Perth continue to be quite affordable, despite a decline in Brisbane (increase in the index) of 3.8 points, and 5.4 in Perth. Hobart continues to be the least affordable, at the same time as it had the largest increase in its index (6.0) and Melbourne and Canberra more or less tie for the second least affordable.

Previous peaks in average repayment affordability were 155.67 in the December quarter 2010 and 172.20 in the June quarter 2008 suggesting that even given no increase in average wages and no decrease in interest rates, the potential upside in the real estate market as an average across Australia could be in the range of 21% to 34%. An increase of these levels would make for the worst affordability of deposits since our data started in 1994.

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.

	<i>Deposit Index</i>		<i>Repayment Index</i>	
<i>Sydney</i>	156.0	(2.3)	118.2	(1.8)
<i>Melbourne</i>	178.0	(6.7)	134.9	(5.1)
<i>Brisbane</i>	144.0	(5.1)	107.8	(3.8)
<i>Adelaide</i>	167.7	(3.0)	126.3	(2.3)
<i>Hobart</i>	210.2	(8.0)	157.2	(6.0)
<i>Darwin</i>	128.3	(1.9)	95.6	(1.4)
<i>Canberra</i>	180.6	(4.3)	136.1	(3.2)
<i>Perth</i>	135.7	(7.2)	102.1	(5.4)
<i>Average</i>	170.5	(7.0)	128.8	(5.3)



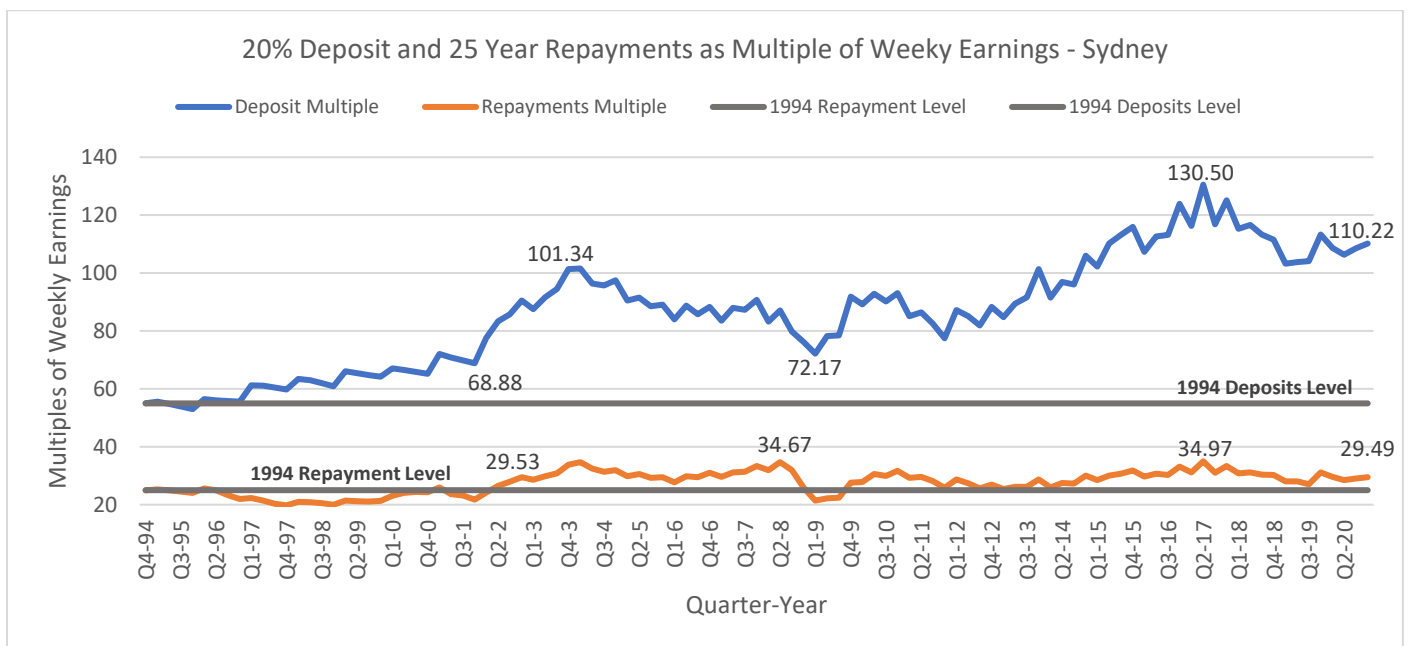
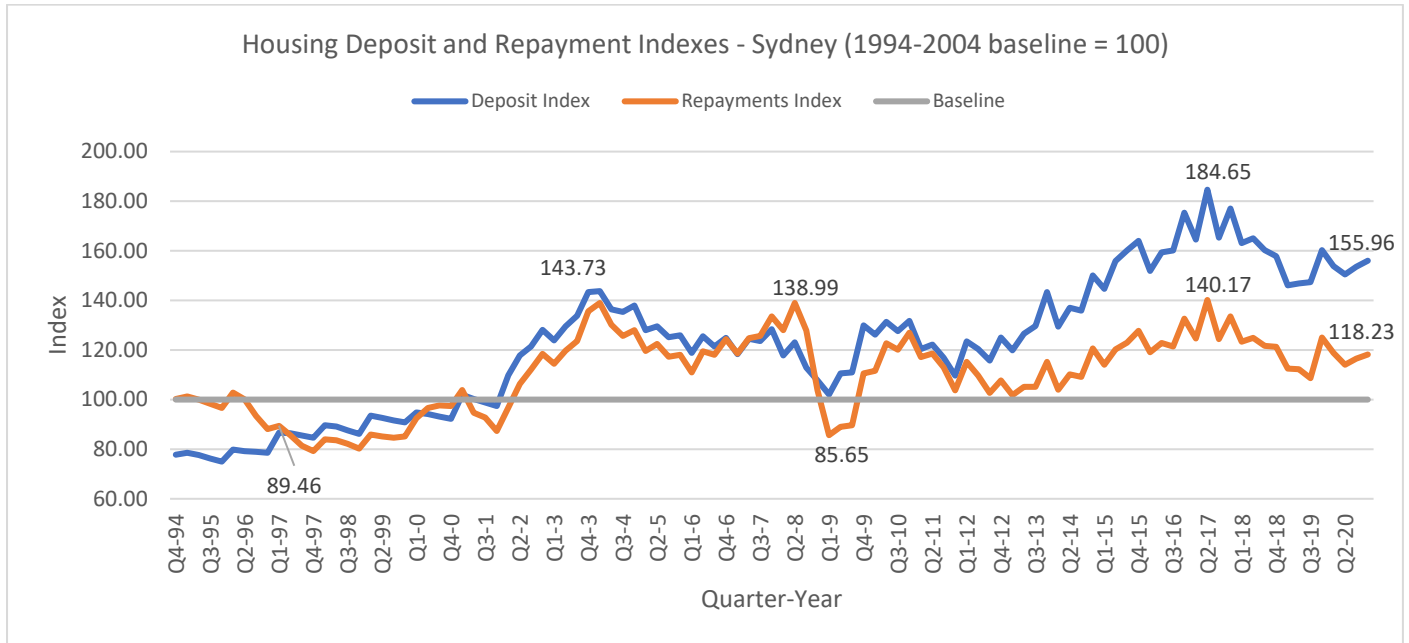
Graham Young
Executive Director
Australian Institute for Progress



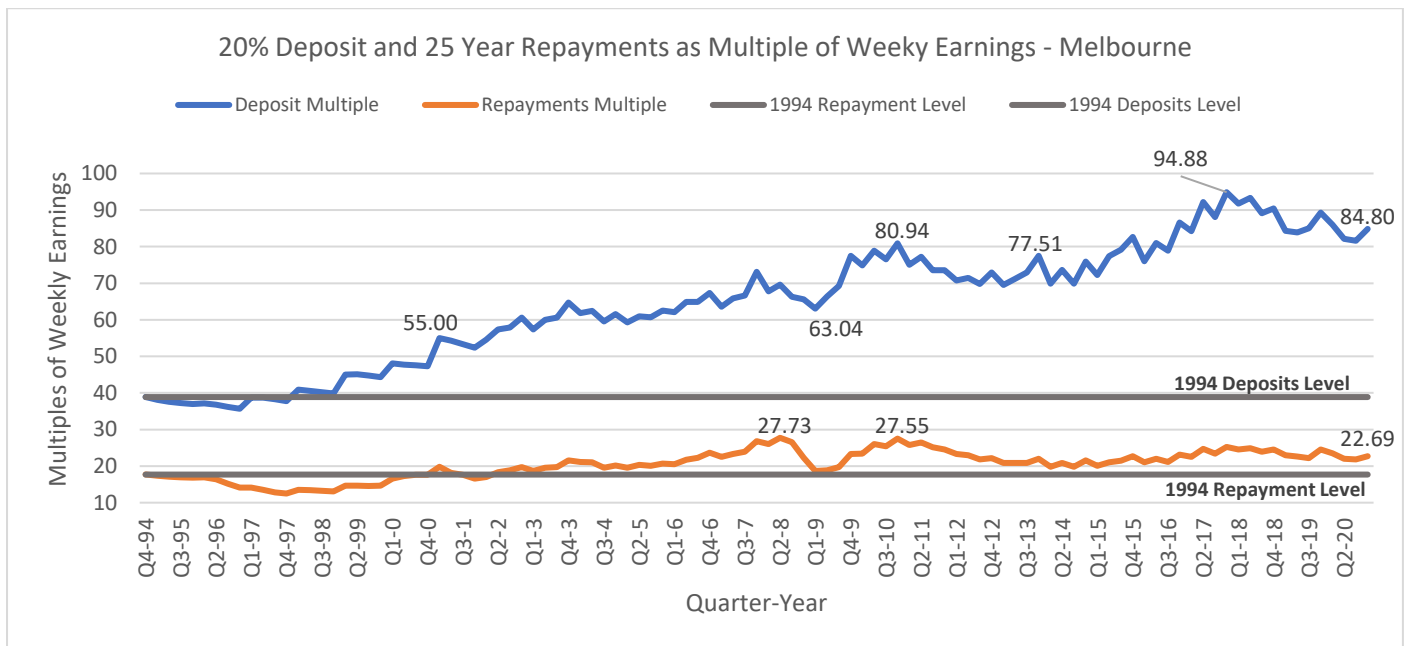
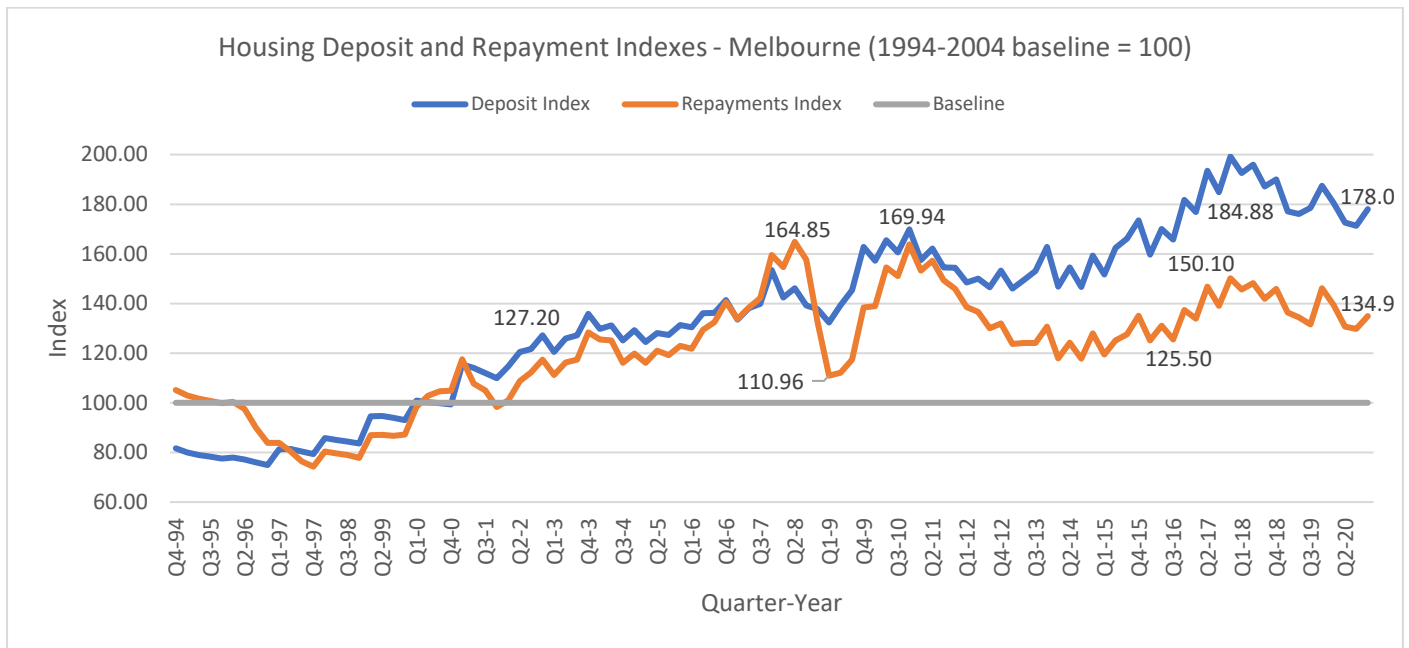
Nicholas Umashev
Economic Researcher
Australian Institute for Progress

Deposit and Repayment Costs by State

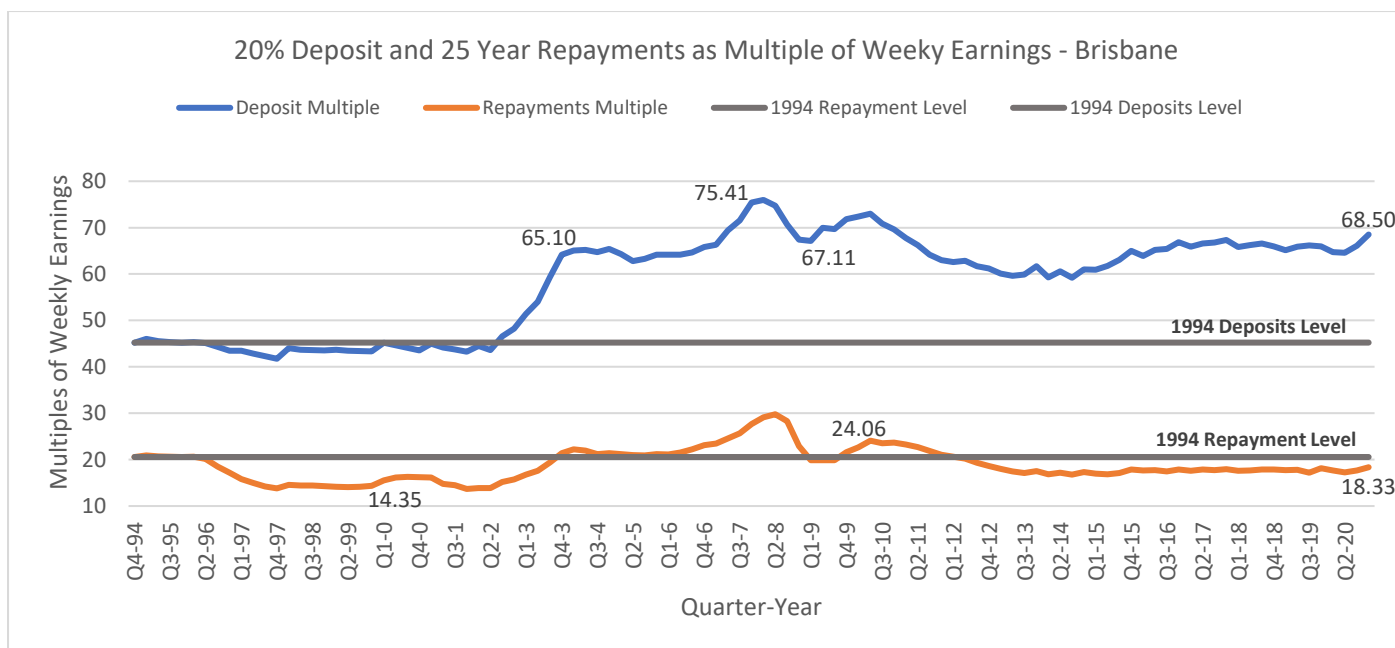
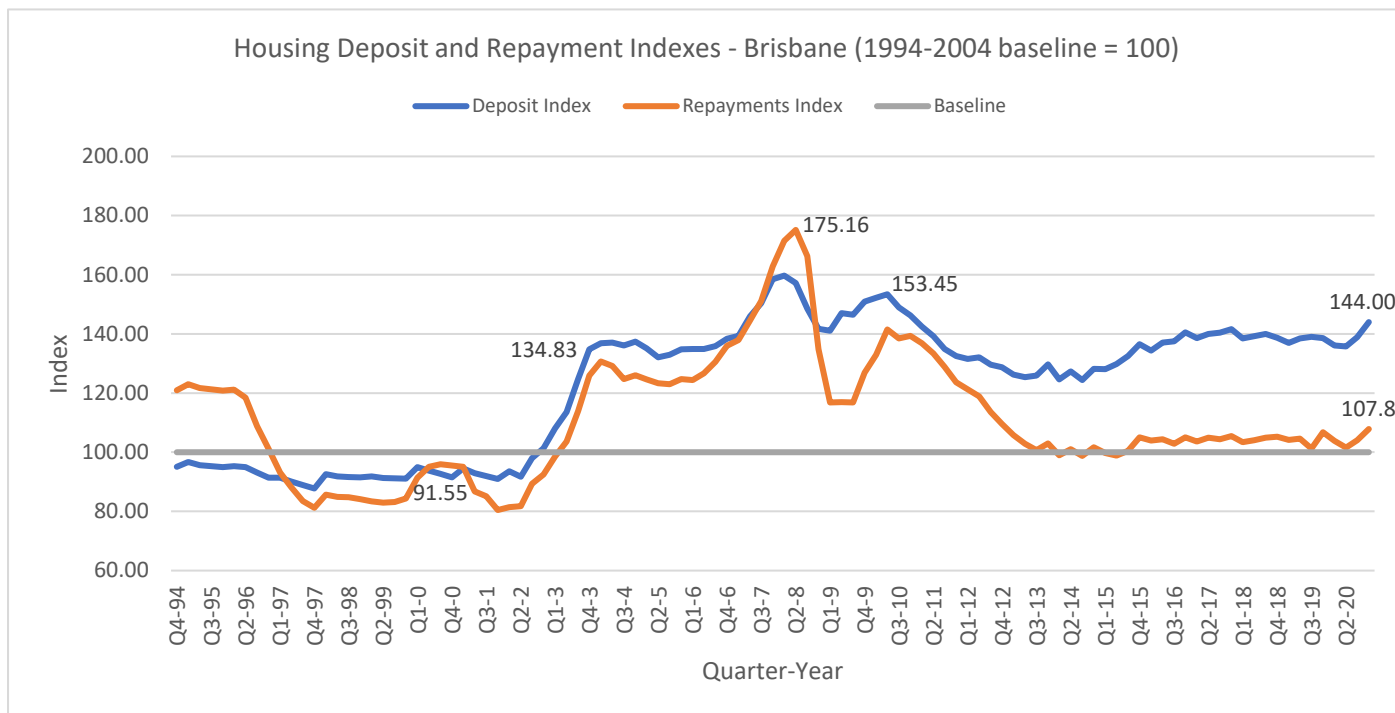
Sydney



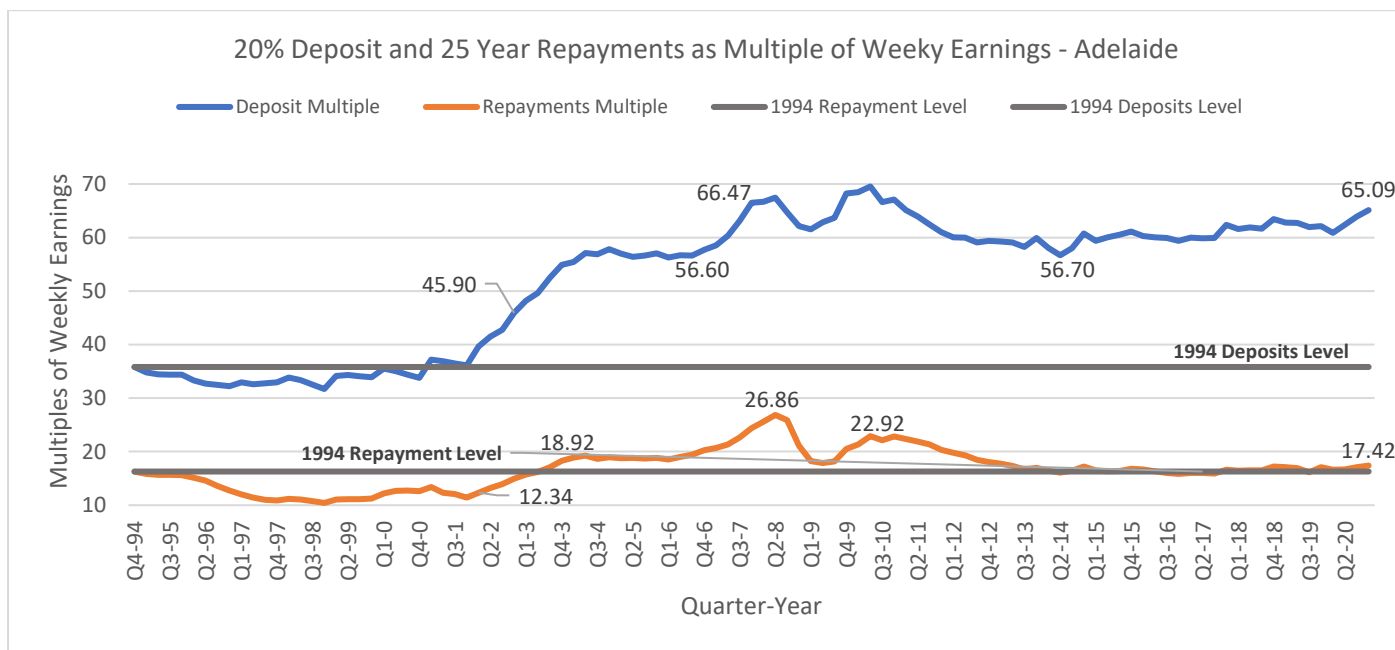
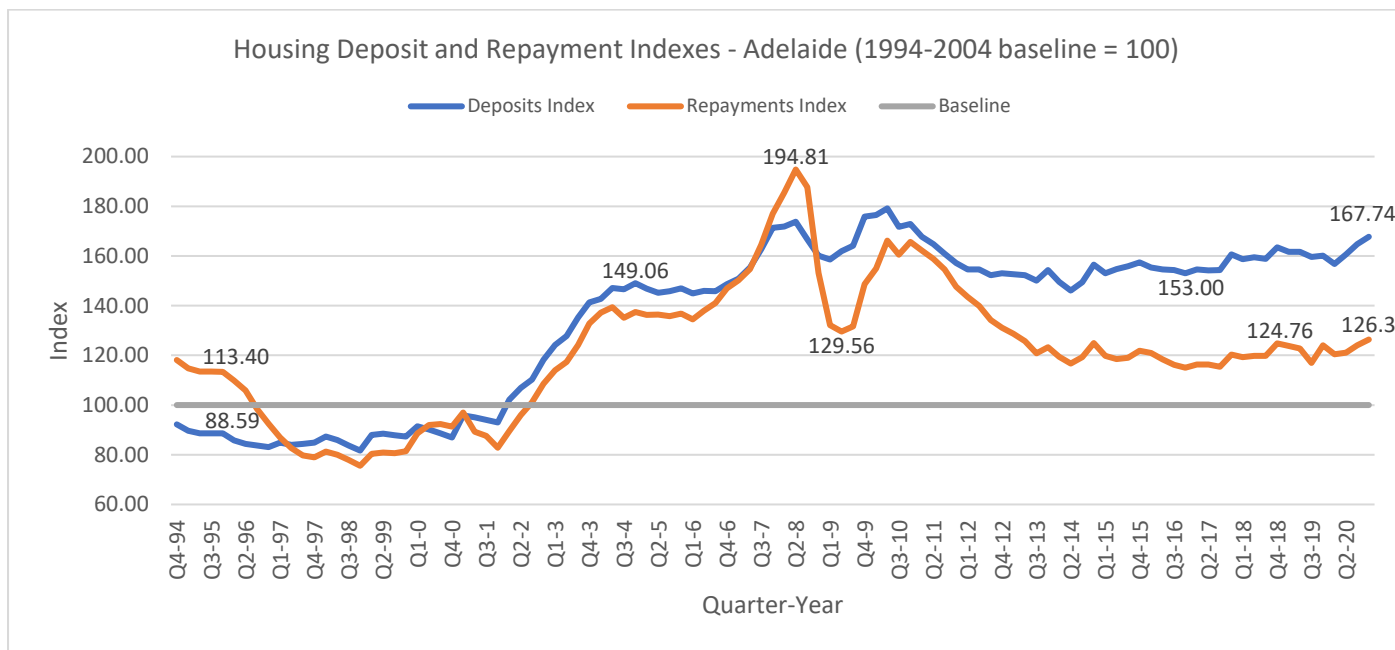
Melbourne



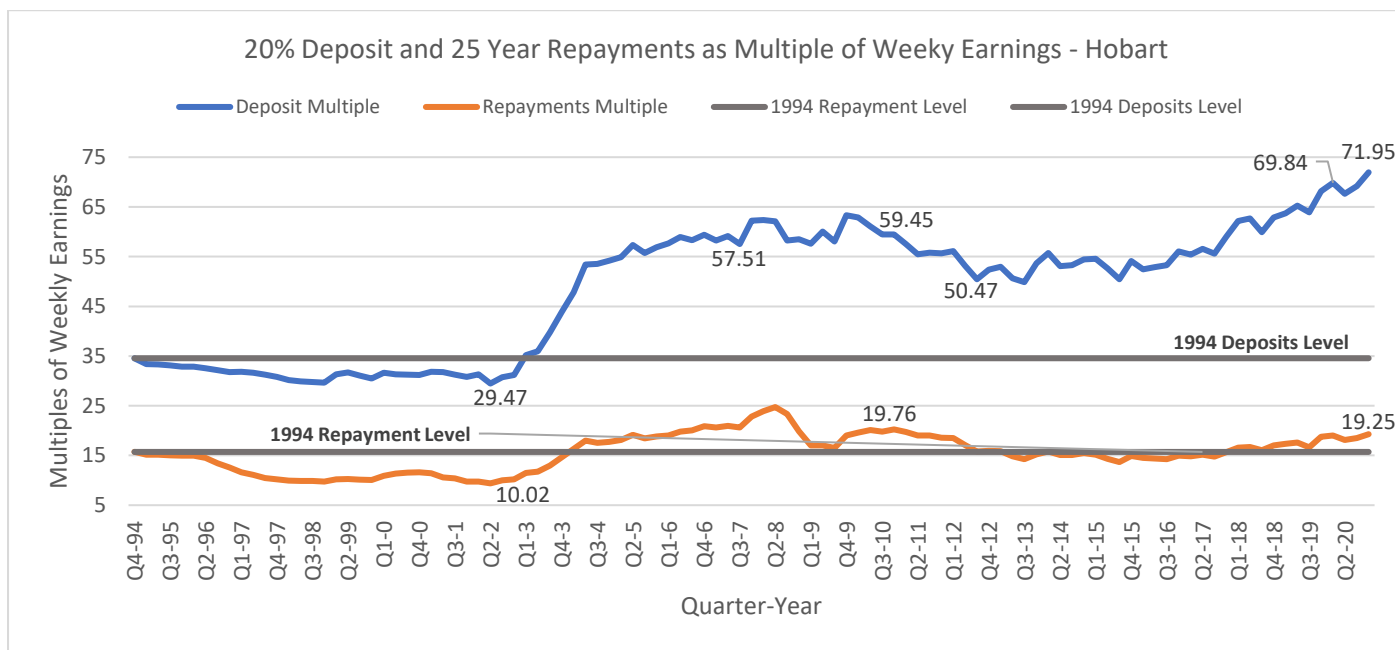
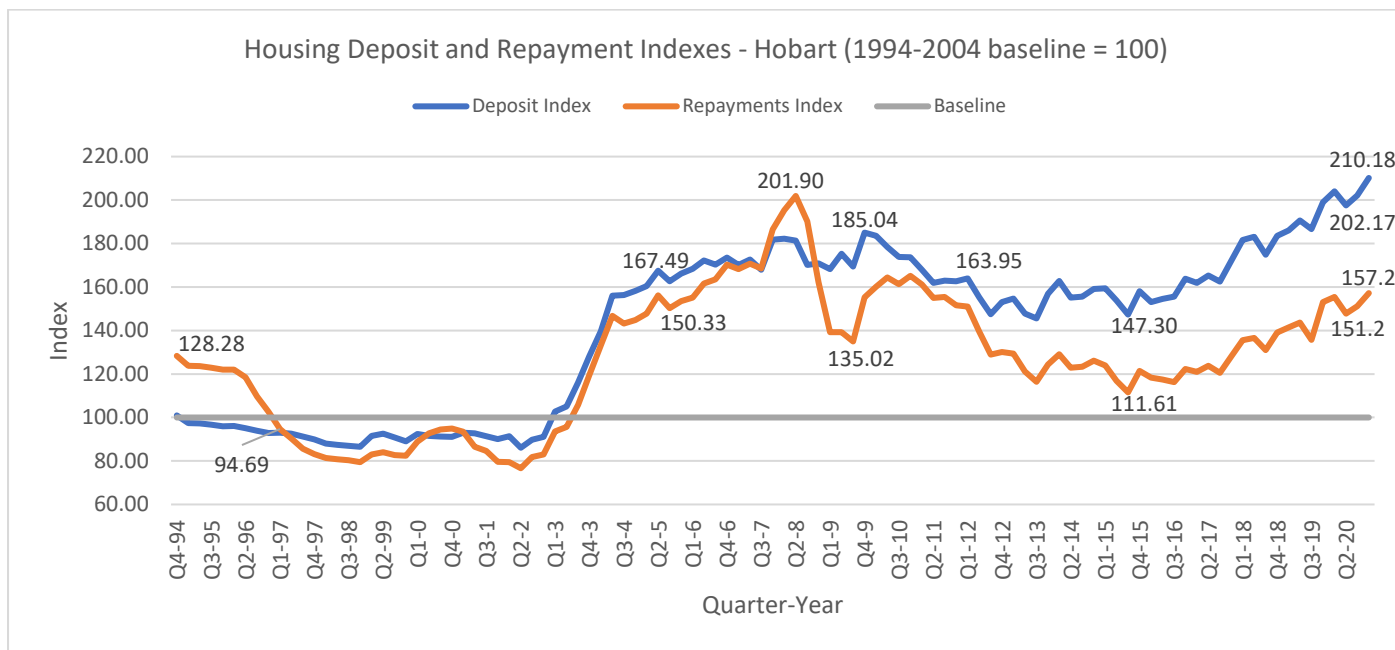
Brisbane



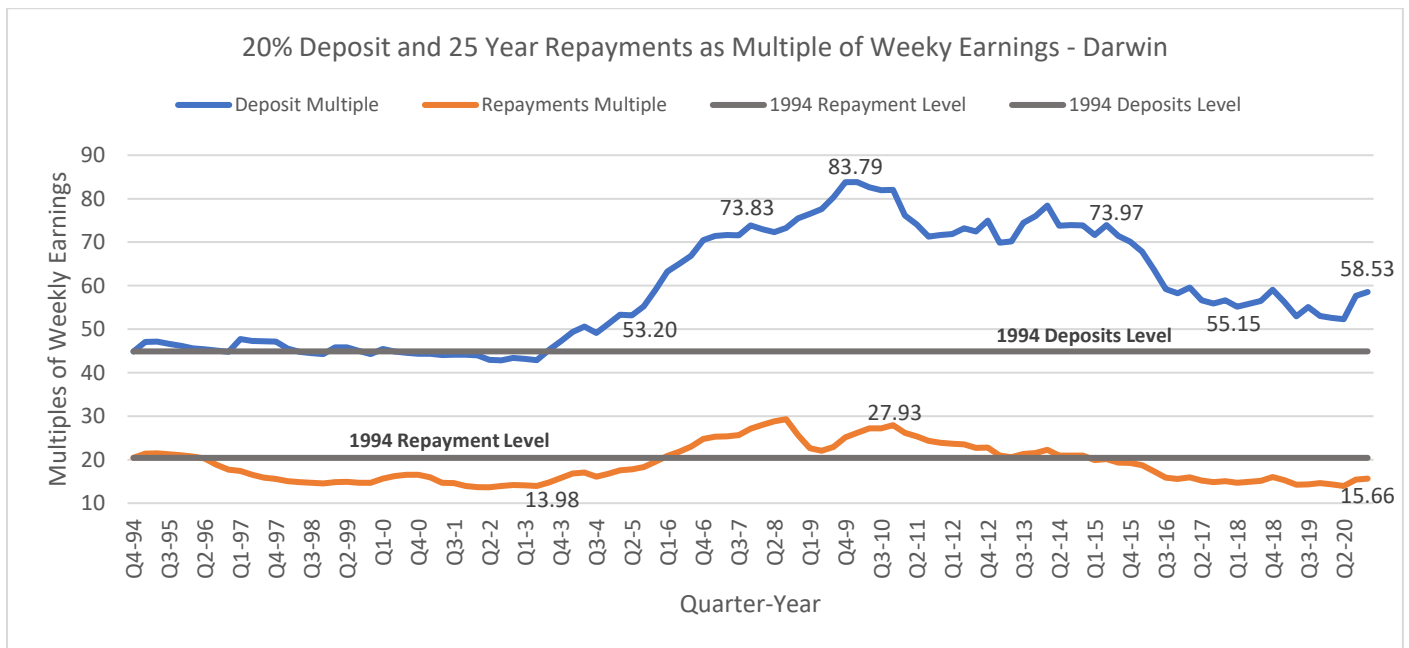
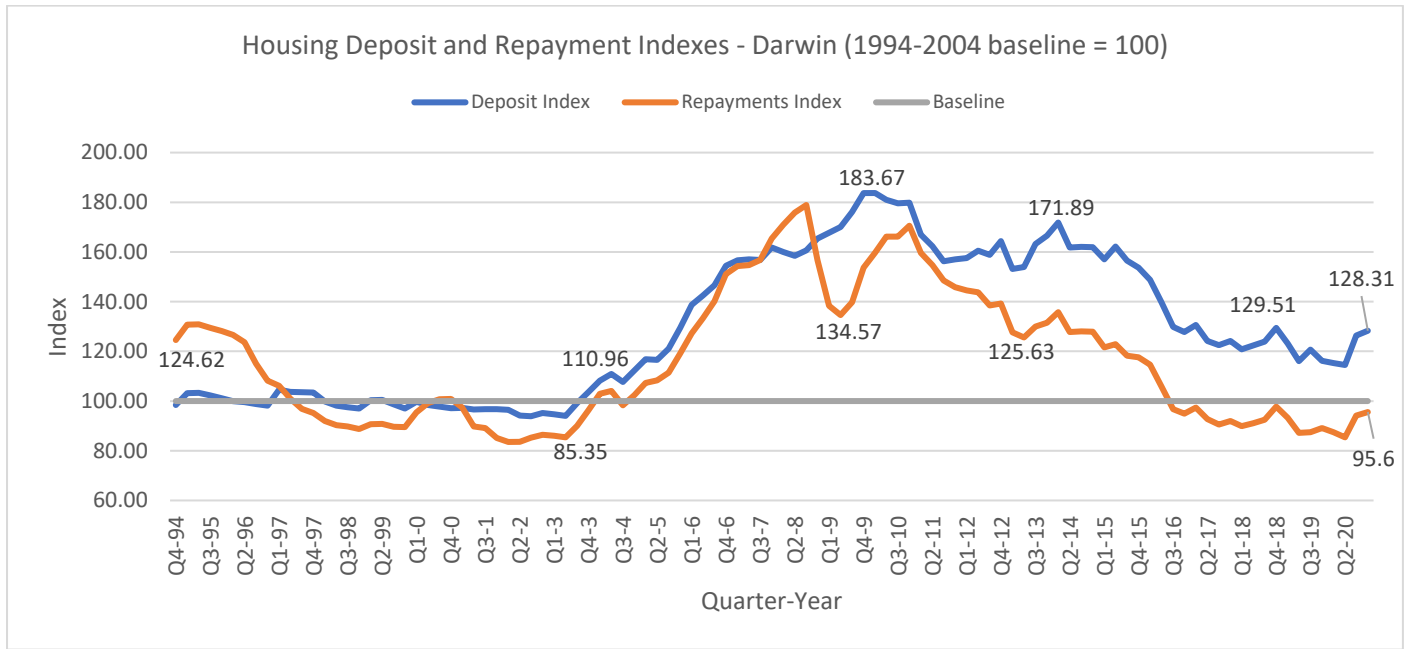
Adelaide



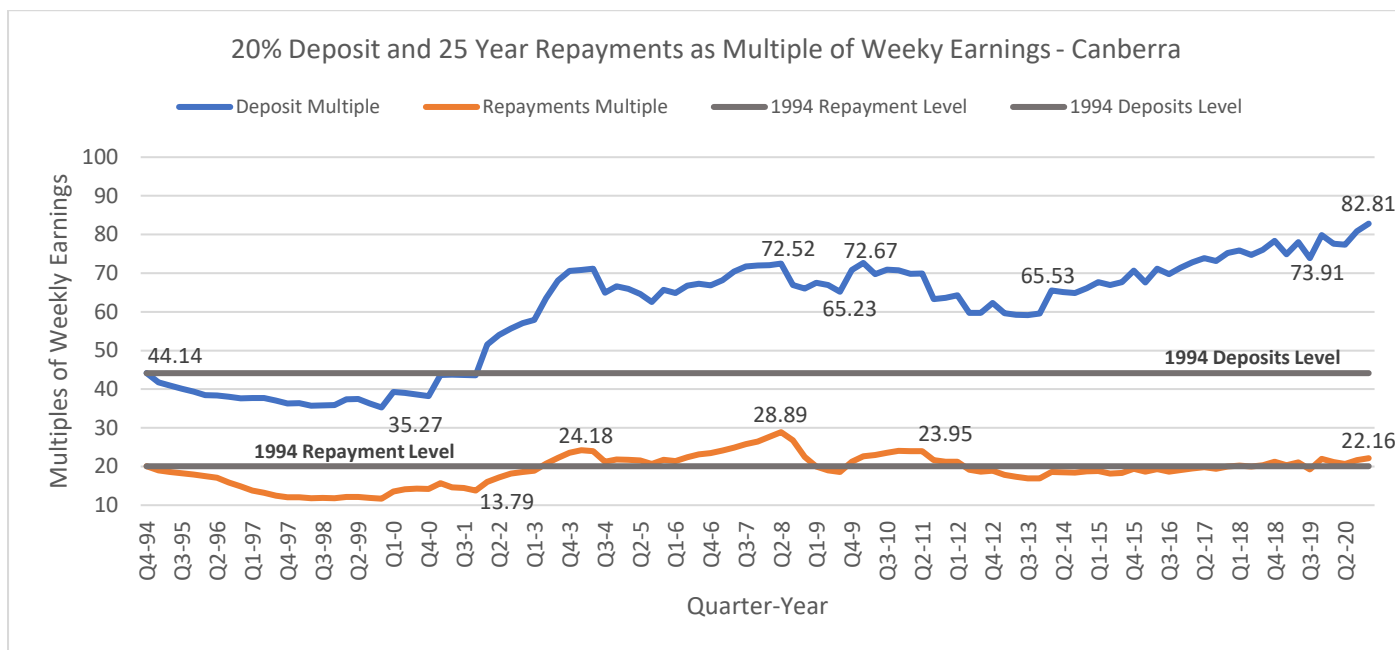
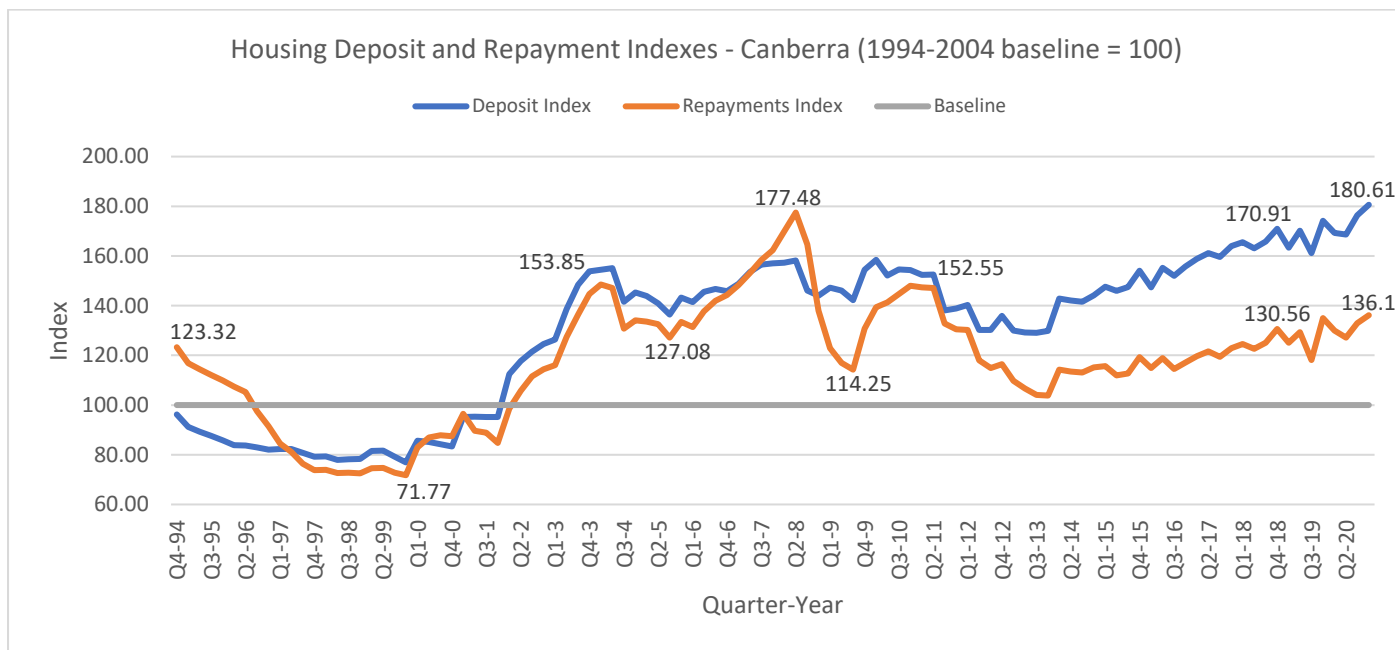
Hobart



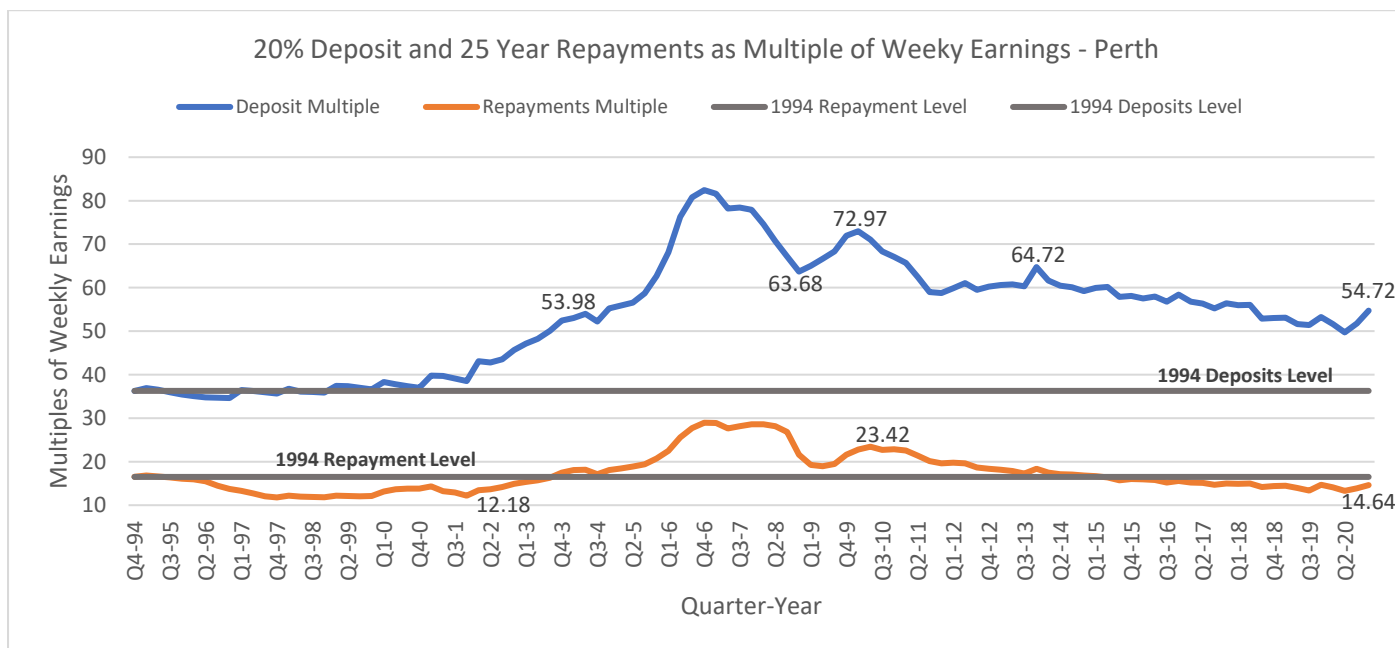
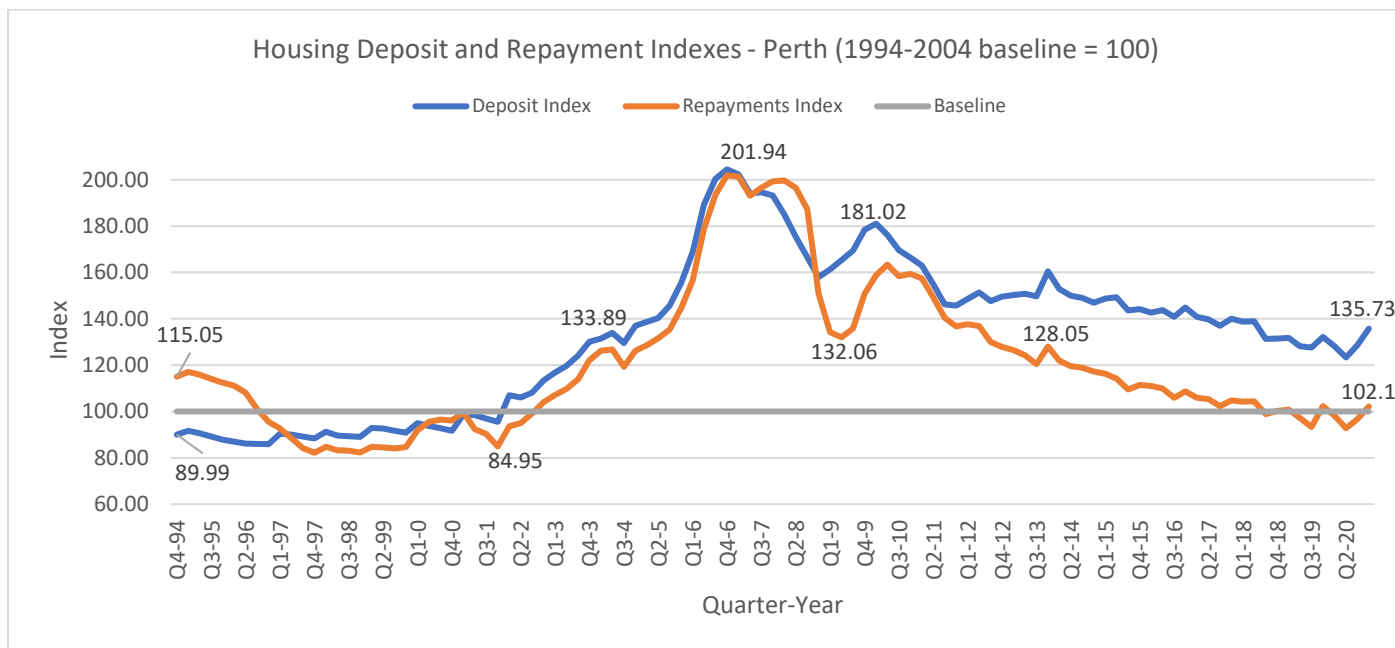
Darwin



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 Q4:2020 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 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
2. ABS 6416. (December 2020 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. (November 2020 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. (December 2020 series). *Indicator Lending Rates*. Obtained via: <https://www.rba.gov.au/statistics/tables/xls/f05hist.xls>