



Australian Institute for Progress

Housing Affordability Index

September Quarter, 2020

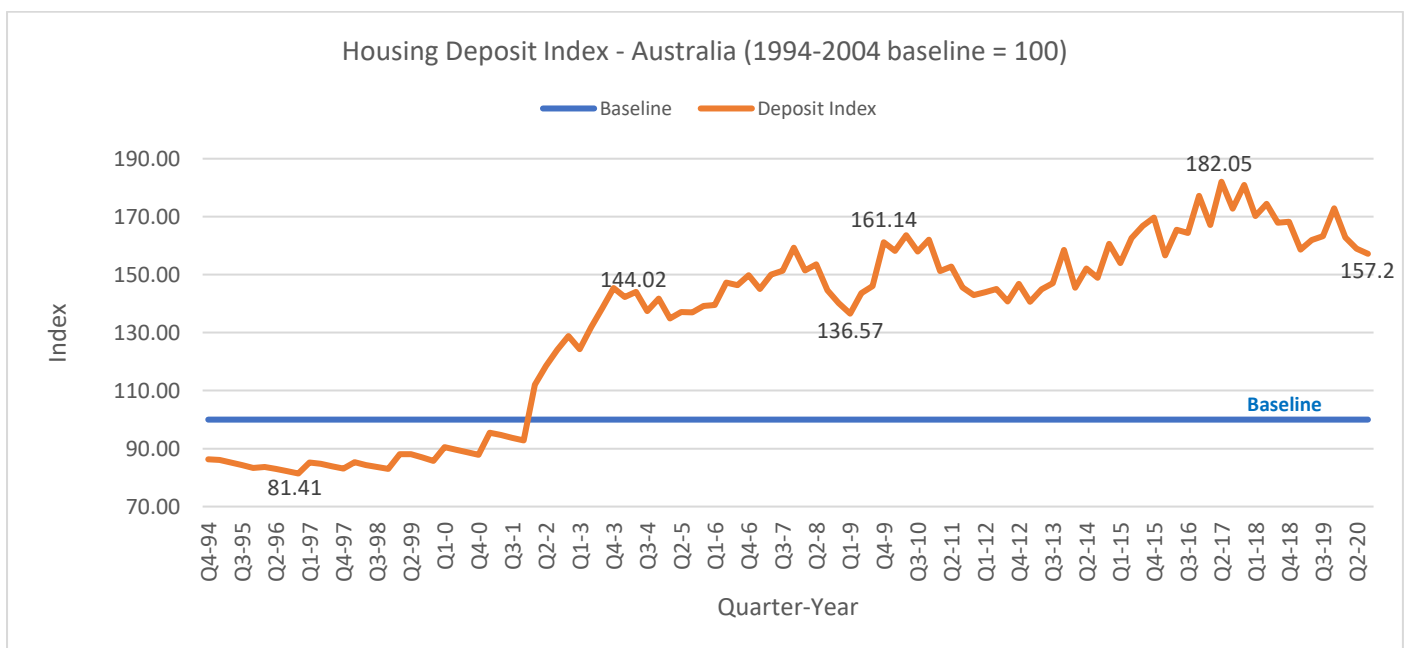
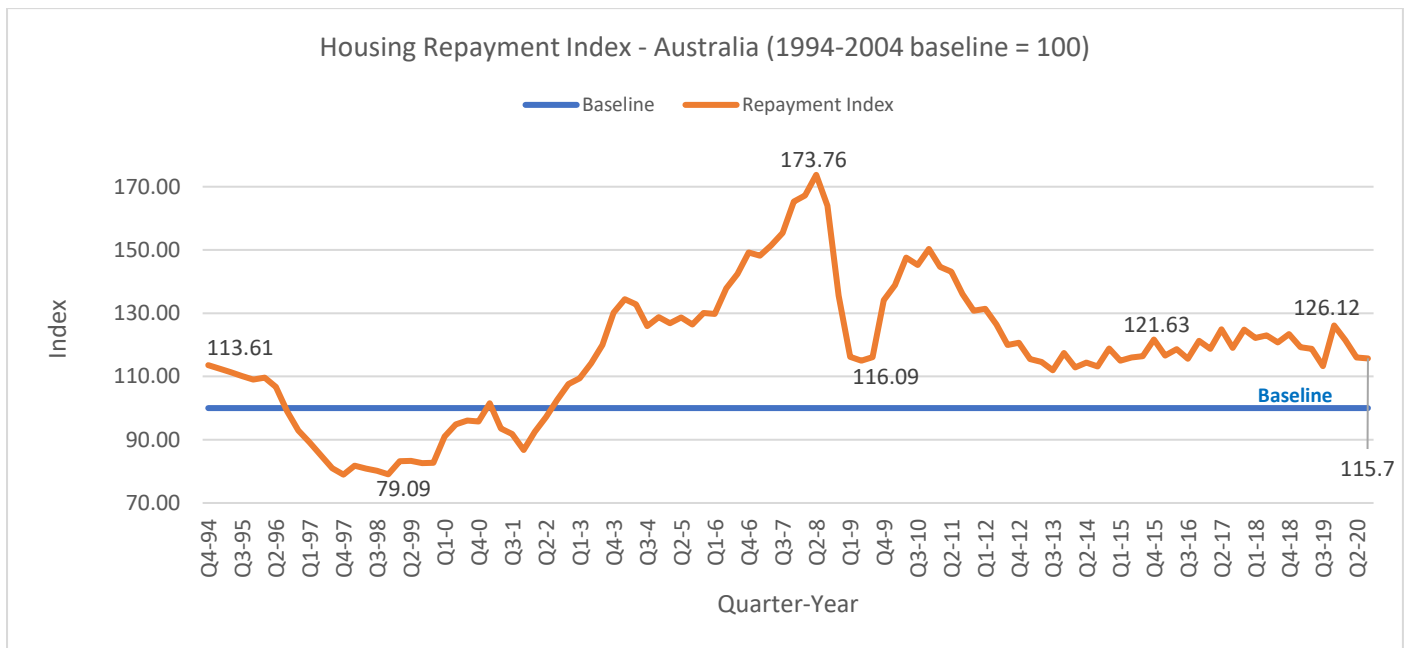
A Quarterly Review of Housing Affordability

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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

- We introduce a new methodology whereby national indexes are calculated using an average of Australia’s 8 most populous cities weighted by the number of established house transfers. This marginally changes all of the historical figures in the index.
- Repayment costs have decreased over the 3rd quarter of 2020, with the repayment index decreasing from 120.1 to 118.7.
- Deposits costs have also decreased over the 3rd quarter, with the deposit index decreasing from 159 to 157.2.
- The change in deposit and repayment costs is attributable to a decrease in median house prices by \$6,522.5 across Australia, which was largely driven by decreases in house prices across Sydney, Melbourne, and Hobart.



Summary

The 2020 Quarter 3 Australian housing market featured diverse changes in the affordability of both housing deposits and repayments dependent on city. Repayments and deposits fell in Sydney, Melbourne, and Hobart though rose in Brisbane, Adelaide, Darwin, Canberra, and Perth. Aggregating across Australia, housing repayments and deposits decreased by 1.4 and 1.8 index points respectively. The increase in national housing affordability is the result of significant declines in median house prices in Sydney and Melbourne. This is despite Melbourne, which is typically one of the most unaffordable cities, having nearly halved its share of national established housing transfers from 25% to 15%.

The total number of weeks to raise a deposit, given a 10% savings rate, now averages at 764.9 weeks across Australia, having decreased by 8.9 weeks over the September quarter. Notably, the number of weeks to raise a deposit fell by 23 weeks in Sydney and 22 weeks in Melbourne. Similarly, the proportion of average yearly income used to cover repayments is now 39.36% across Australia, having decreased by 0.5% (equivalent to \$422.33 per year).

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>	145.8	(-3.3)	110.5	(-2.5)
<i>Melbourne</i>	166.6	(-4.8)	126.2	(-3.6)
<i>Brisbane</i>	136.5	(1.2)	102.2	(0.9)
<i>Adelaide</i>	162.3	(1.6)	122.3	(1.2)
<i>Hobart</i>	193.7	(-3.7)	144.8	(-2.8)
<i>Darwin</i>	147.0	(3.2)	109.5	(23.8)
<i>Canberra</i>	173.8	(6.1)	131.0	(4.6)
<i>Perth</i>	127.2	(3.9)	95.7	(2.9)
<i>Average</i>	157.2	(-1.8)	118.7	(-1.4)



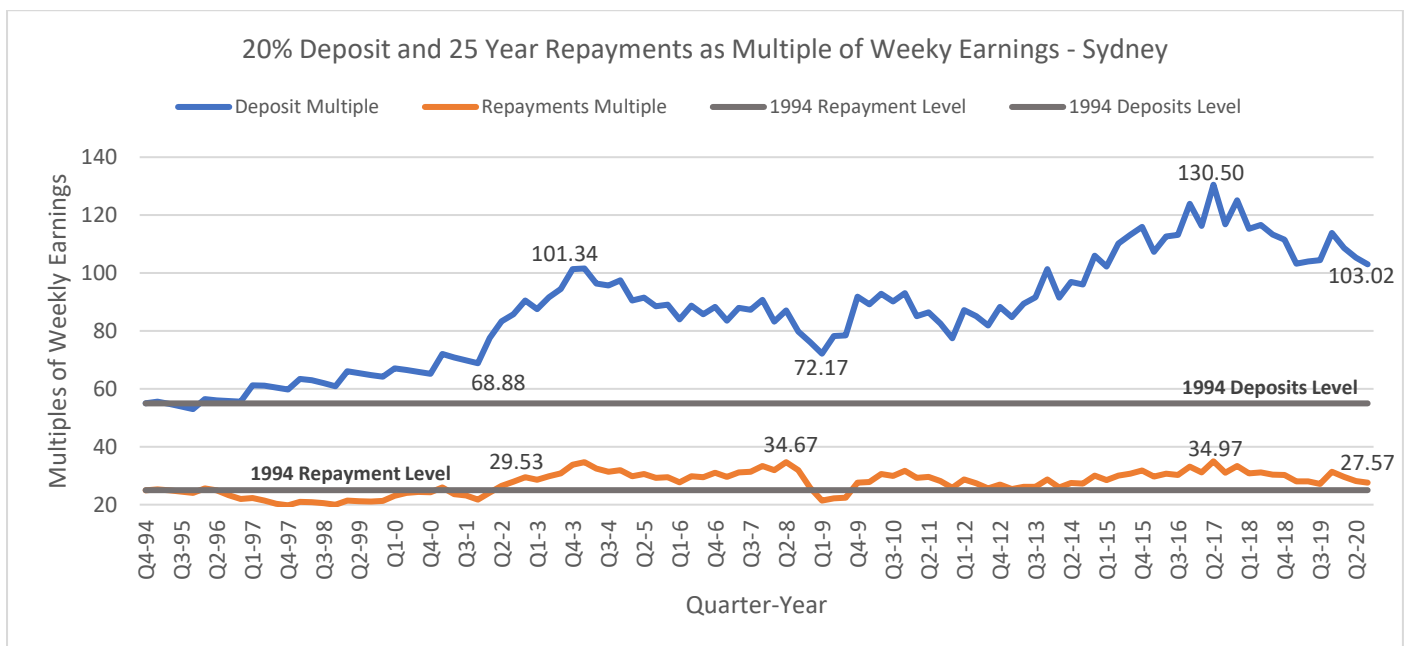
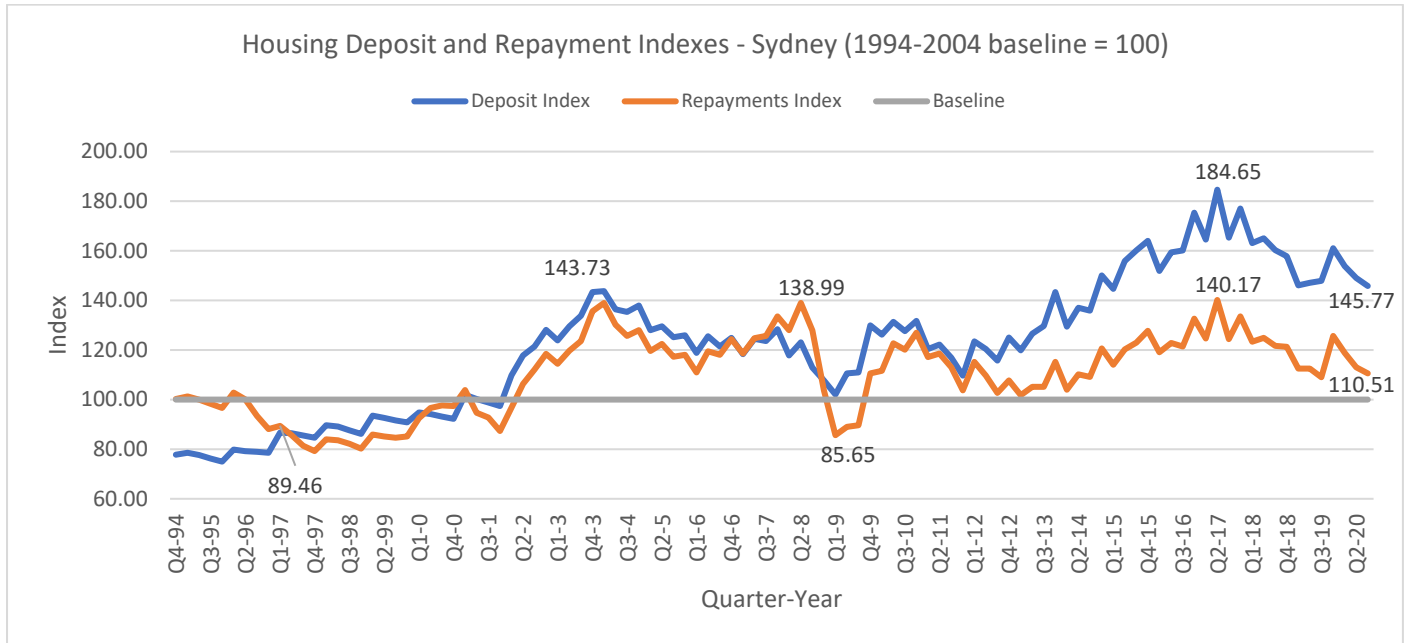
Graham Young
Executive Director
Australian Institute for Progress



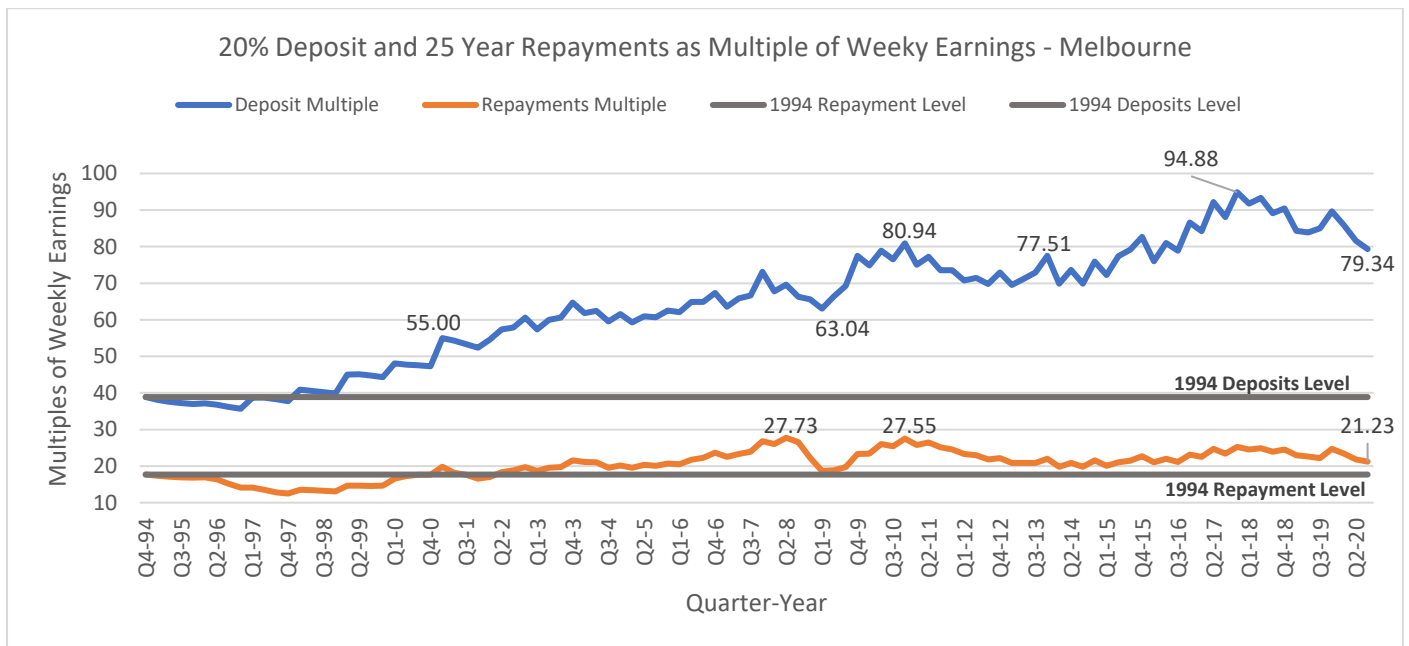
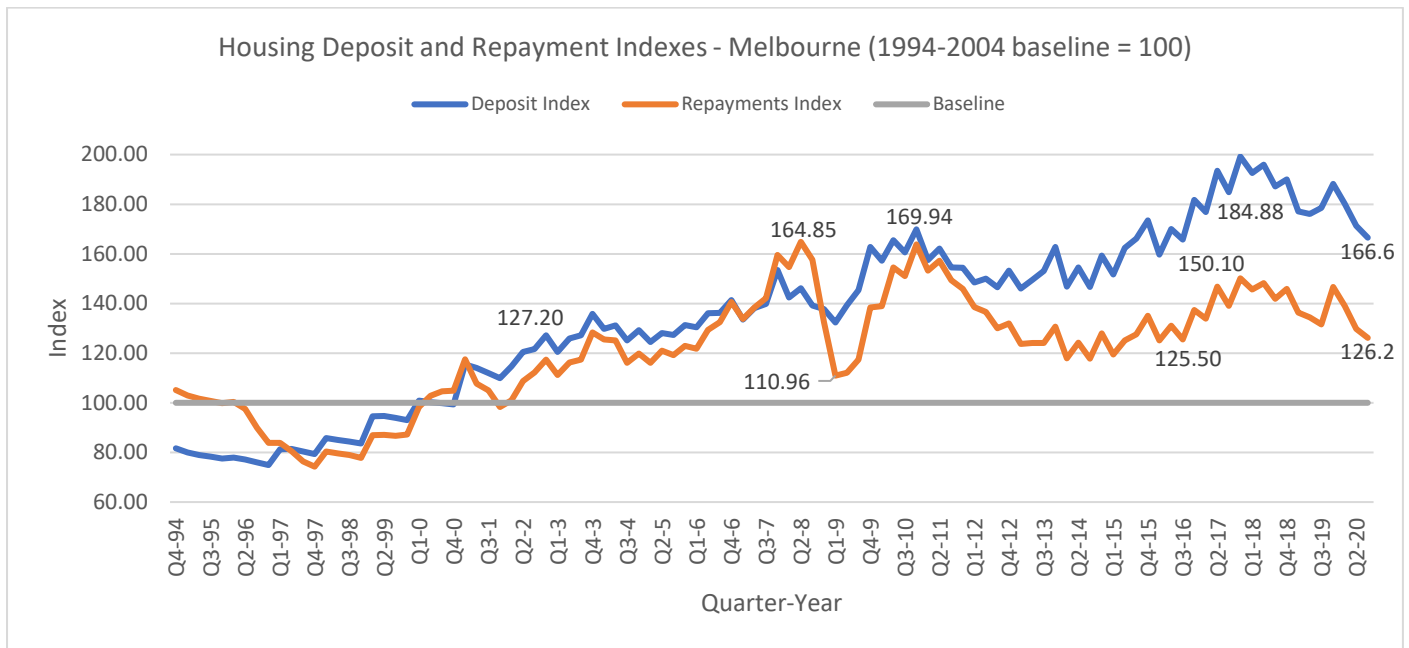
Nicholas Umashev
Economic Researcher
Australian Institute for Progress

Deposit and Repayment Costs by State

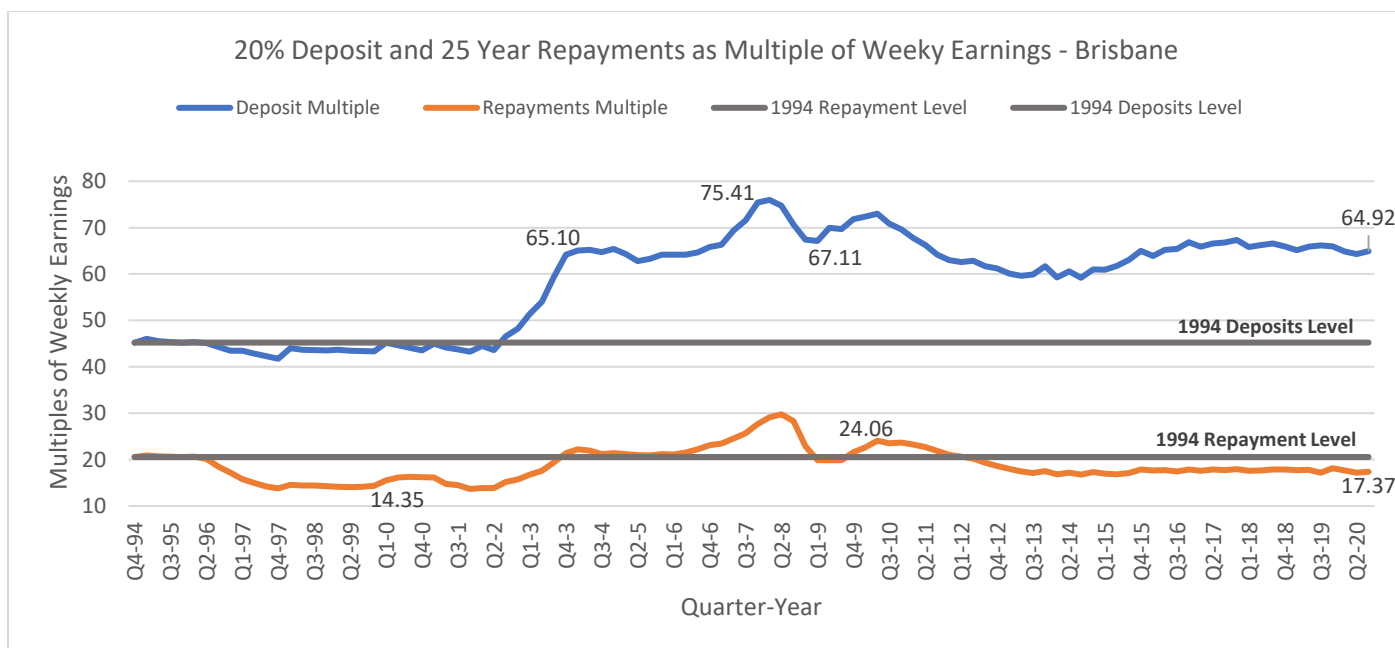
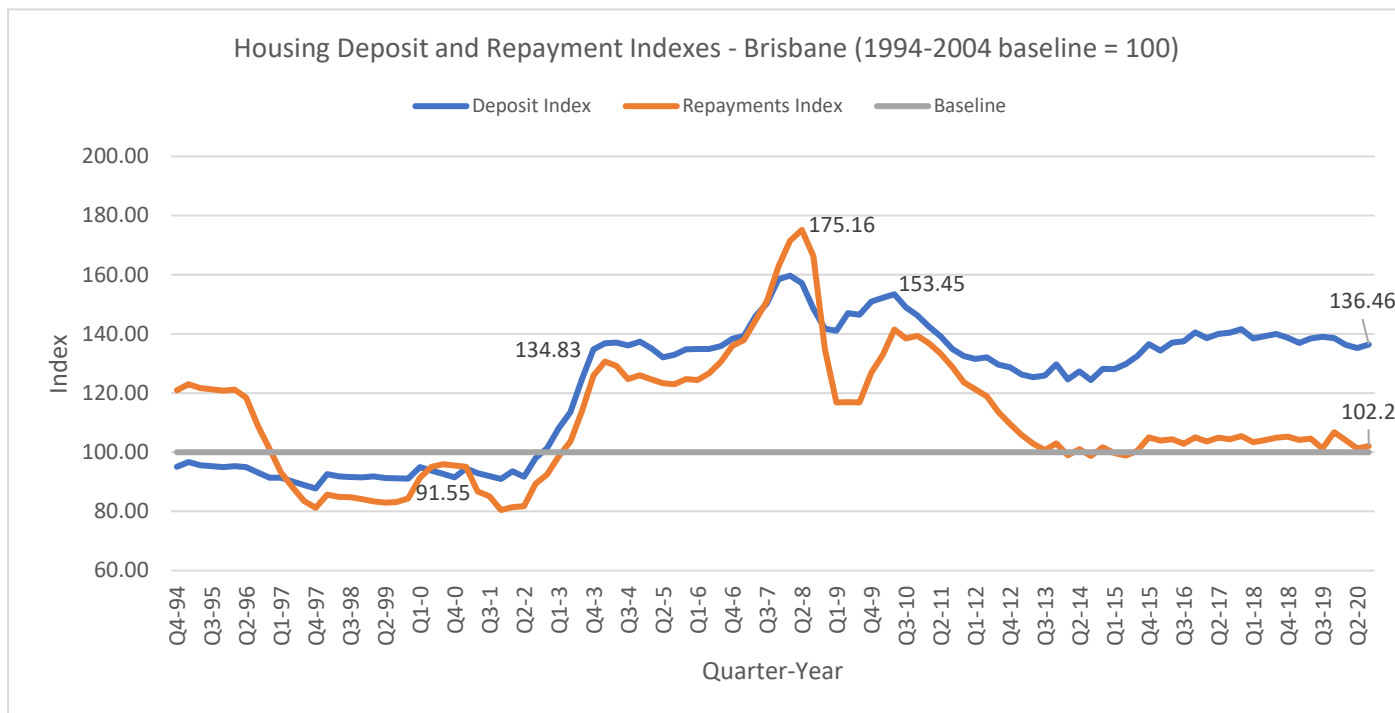
Sydney



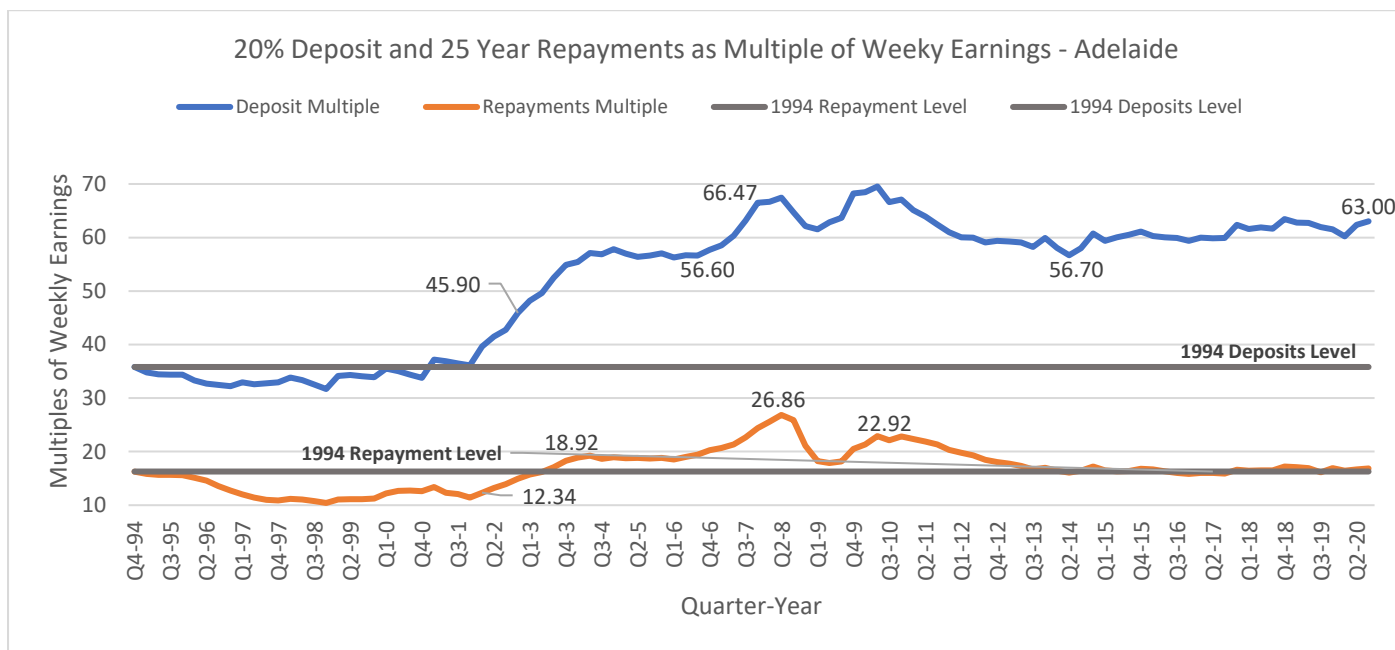
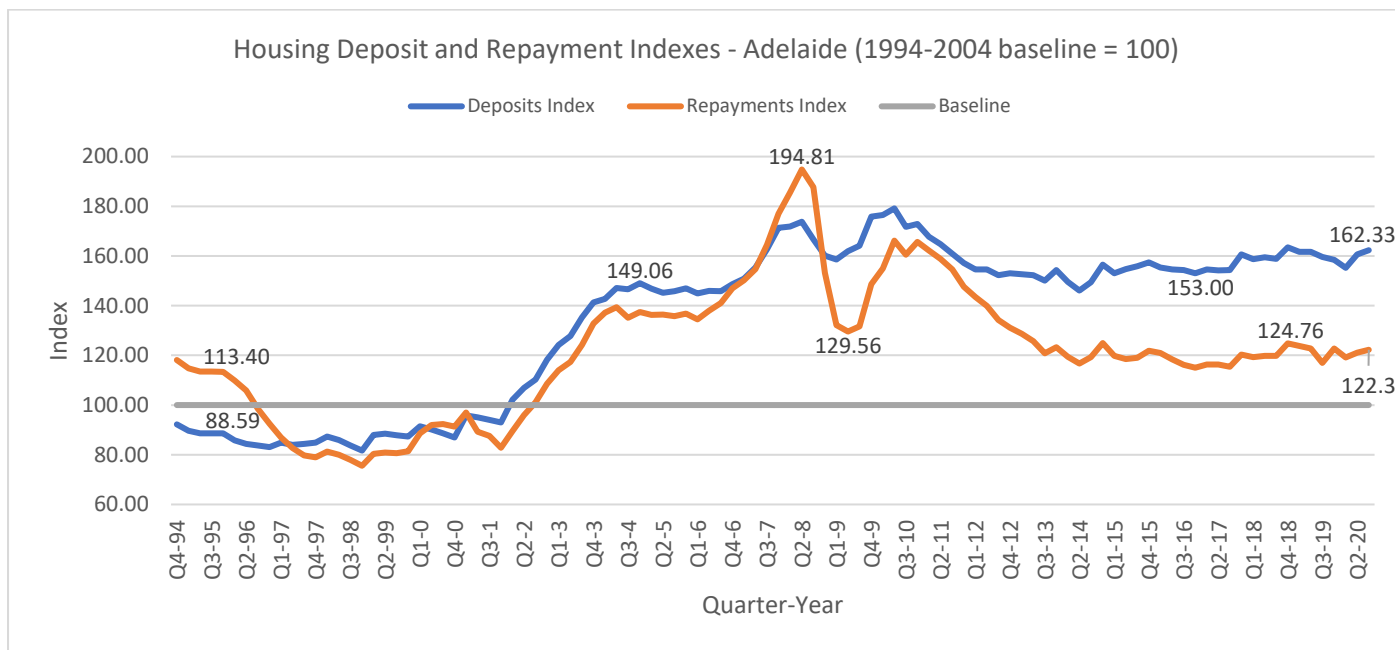
Melbourne



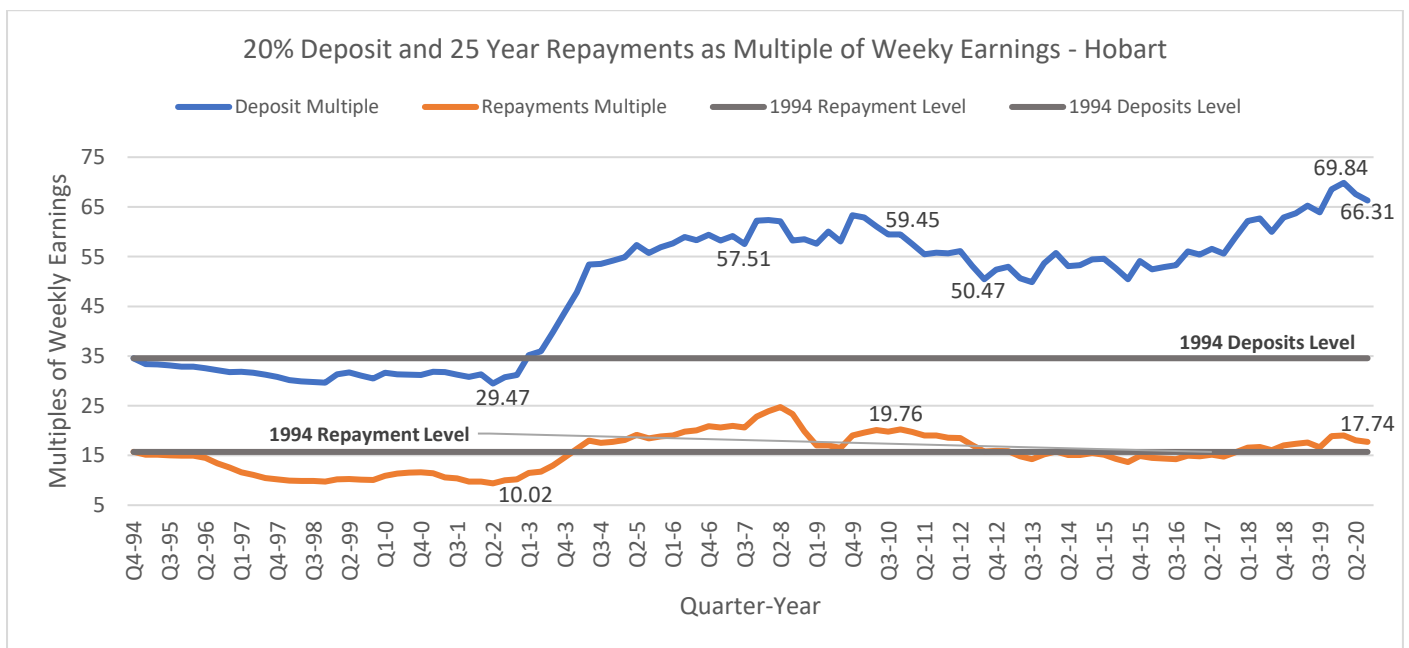
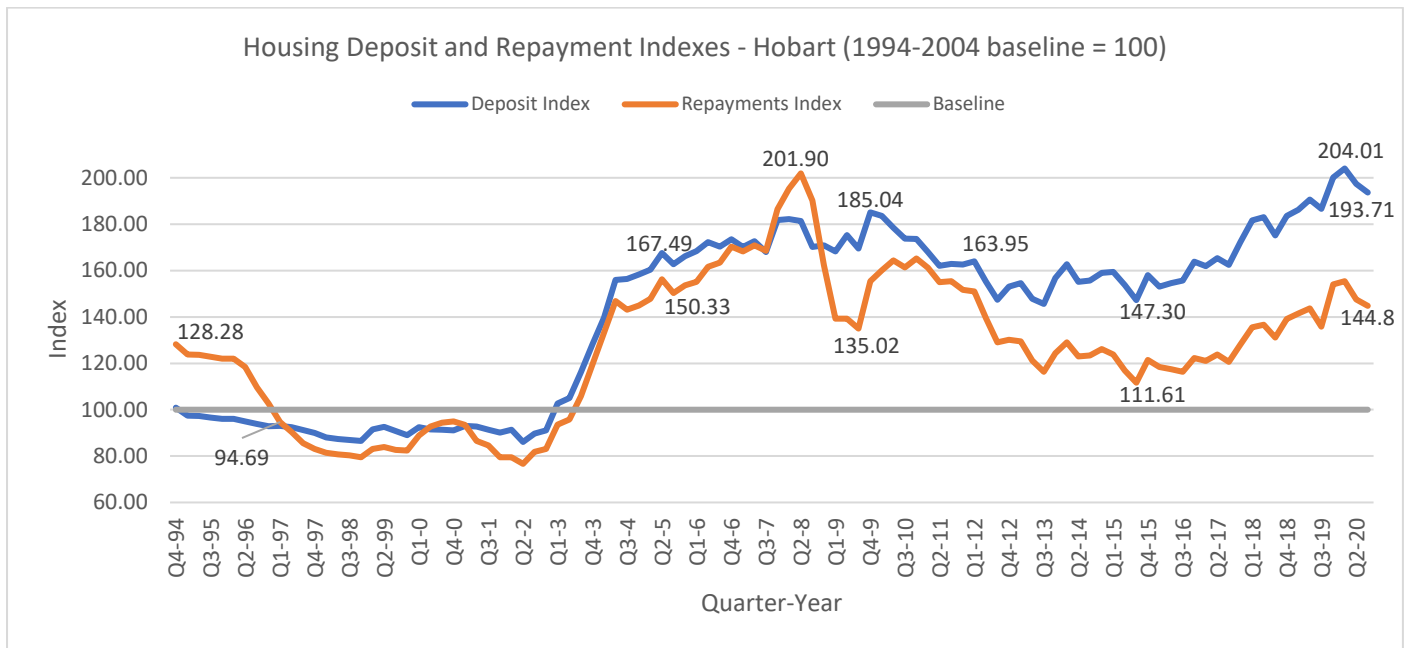
Brisbane



Adelaide

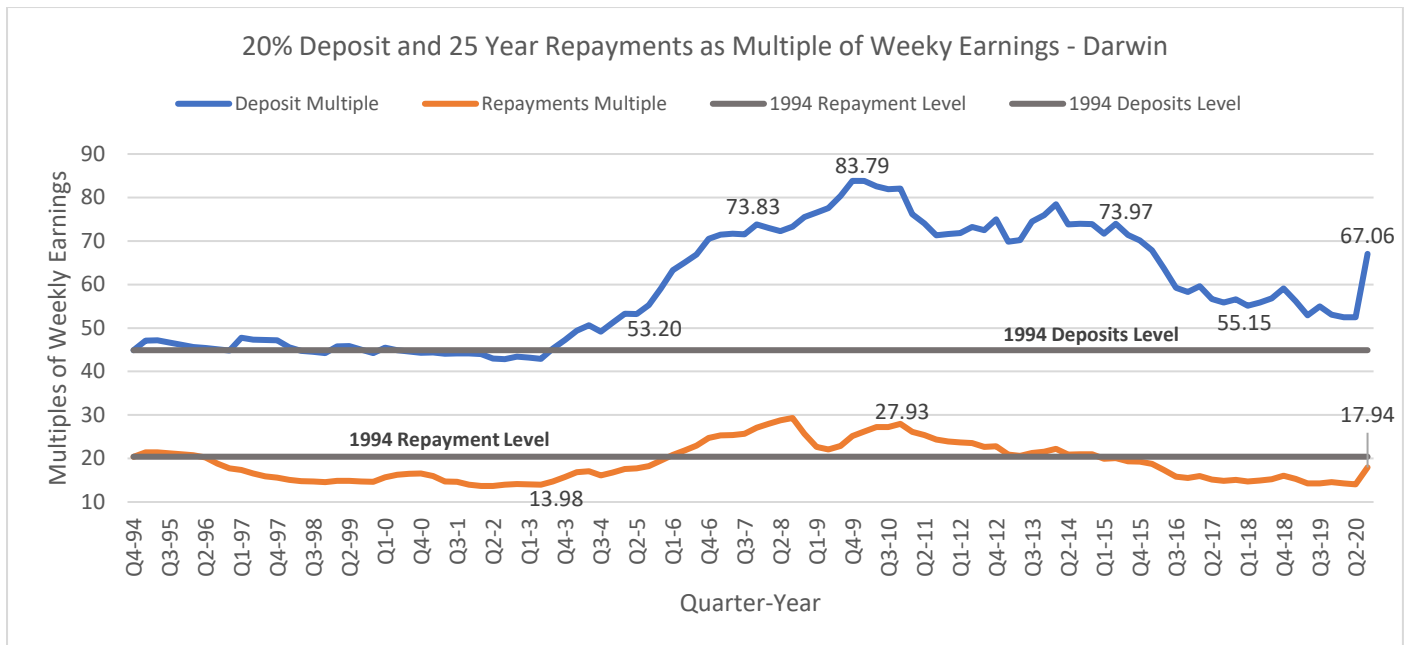
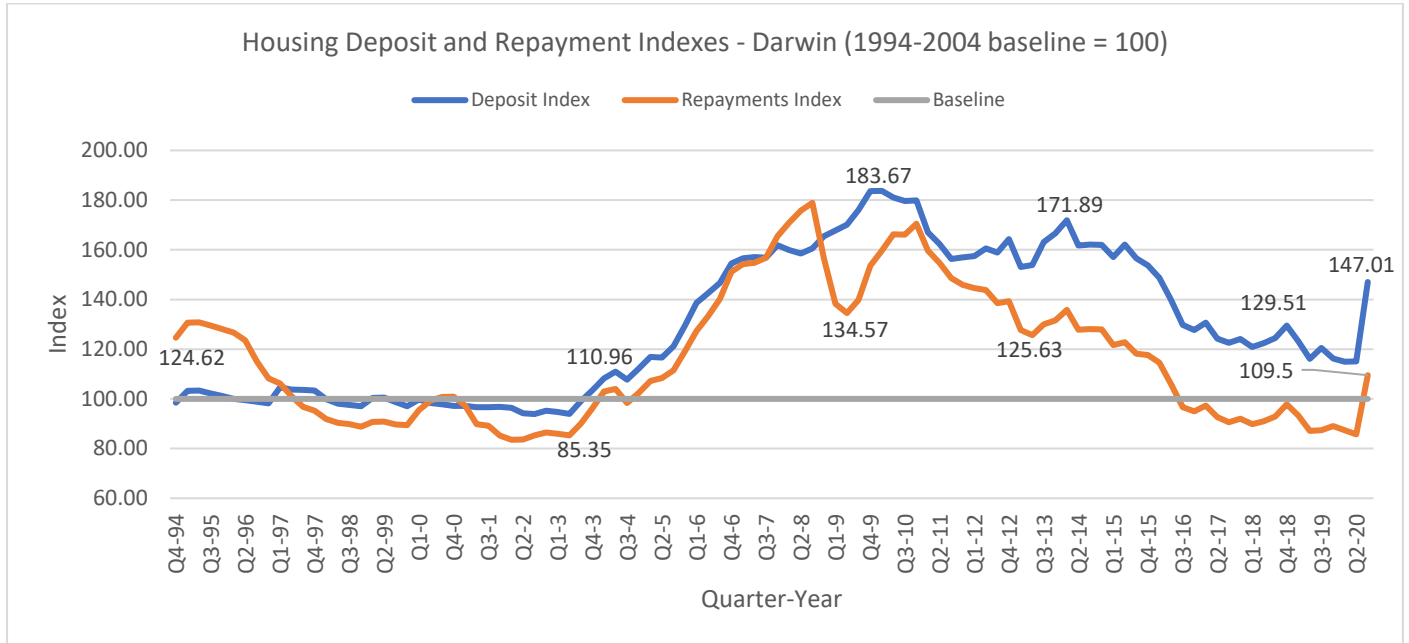


Hobart

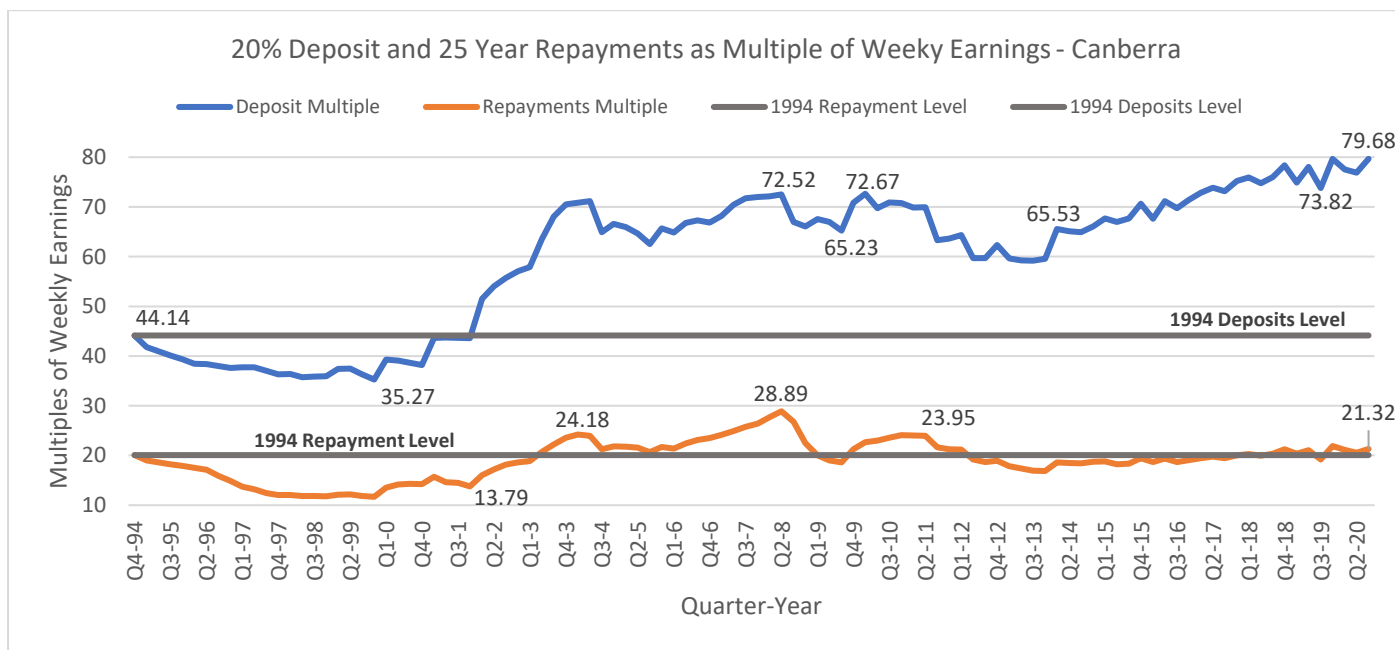
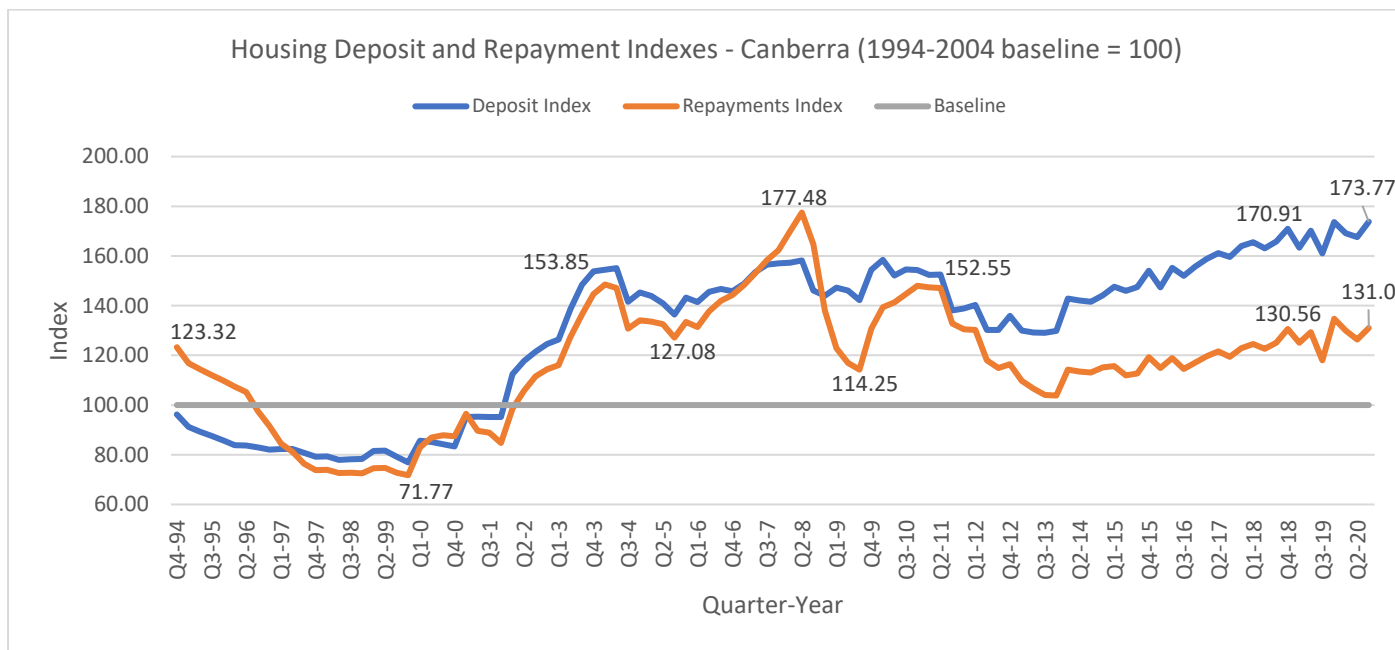


Darwin

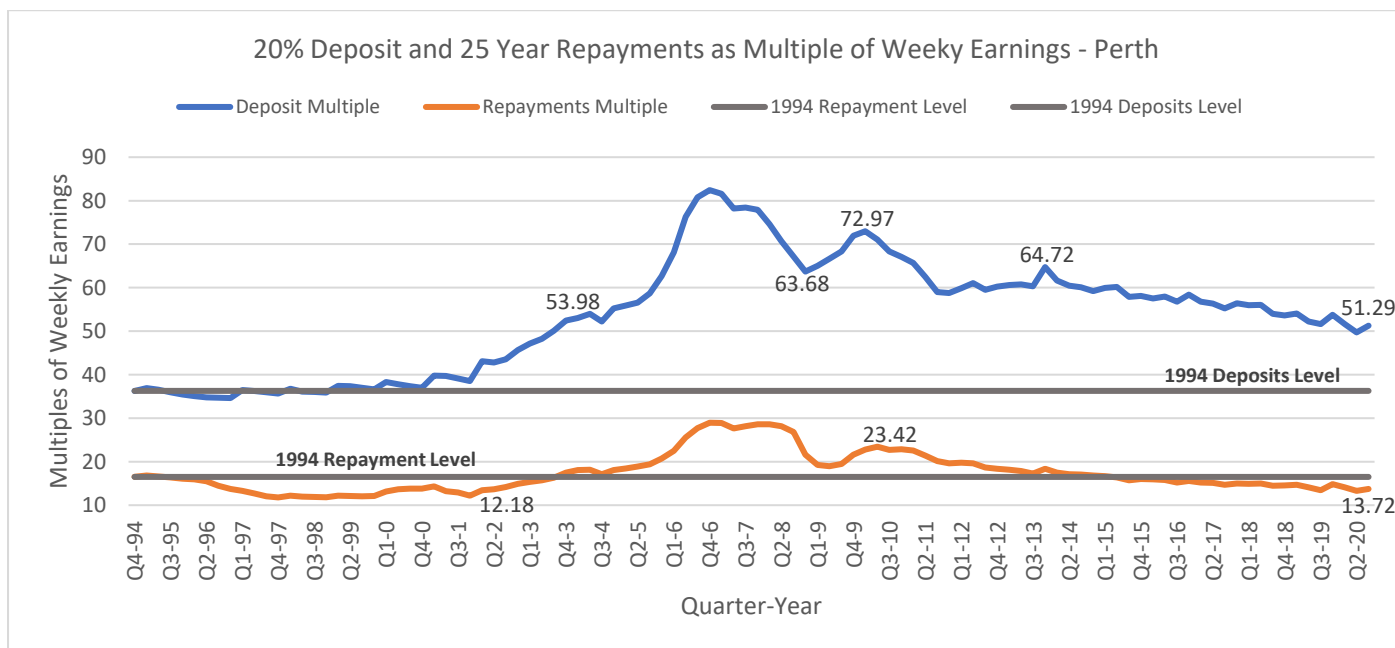
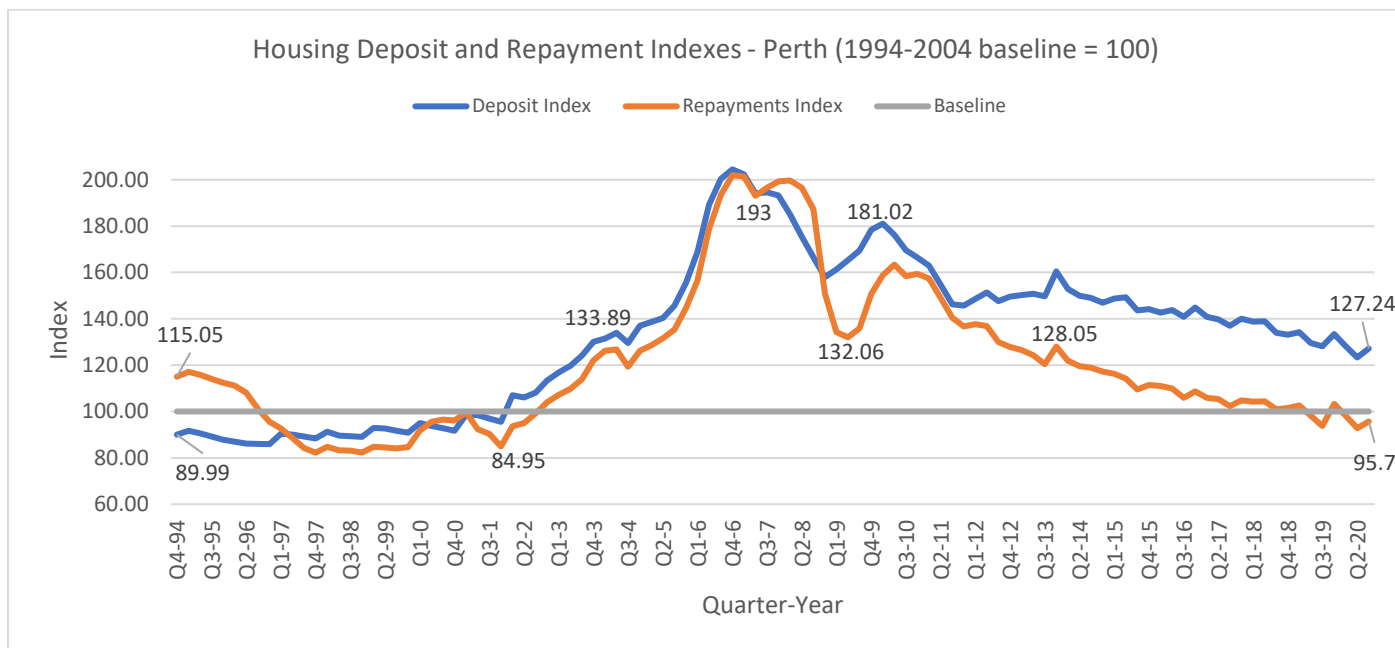
- Note that due to substantial falls in residential property transactions, the median price change for Darwin was imputed by the ABS based on a small sample of established housing transfers. As a result, it is likely that the recent quarter's figures for Darwin will be substantial revised in future releases.



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 Q3:2020 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. (September 2020 series). *Residential Property Price Indexes: Eight Capital Cities*. Obtained via: [Residential Property Price Indexes: Eight Capital Cities, September 2020 | Australian Bureau of Statistics \(abs.gov.au\)](#)
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4. RBA F05. (November 2020 series). *Indicator Lending Rates*. Obtained via: <https://www.rba.gov.au/statistics/tables/xls/f05hist.xls>