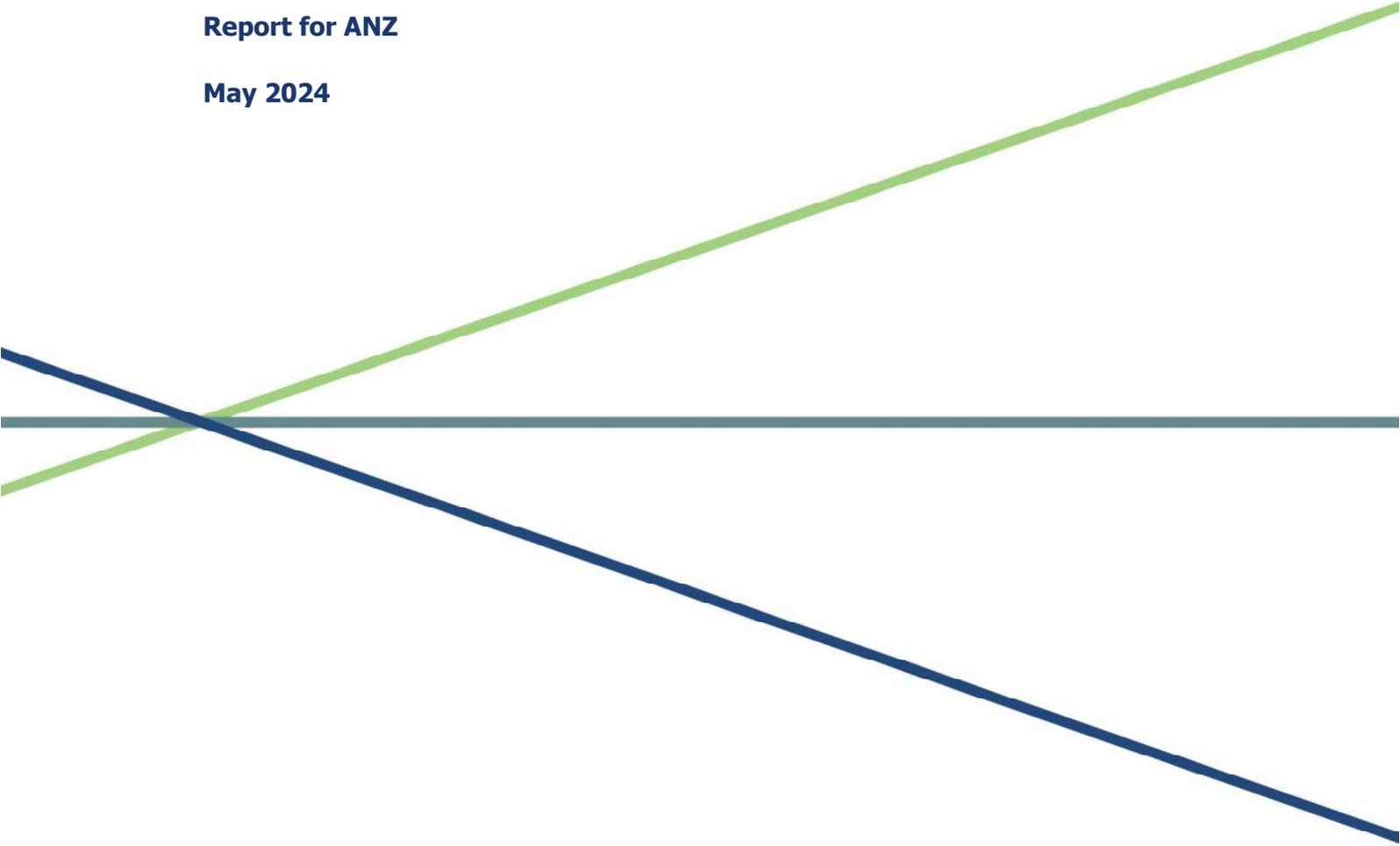


Market review of personal banking – post conference submission

Report for ANZ

May 2024



Contact us:

Incenta Economic Consulting

Unit 1, 19-35 Gertrude Street

Fitzroy, Victoria, 3065

Telephone: +61 3 8514 5119

Website: www.incenta.com.au



Disclaimer:

This report has been prepared by Incenta Economic Consulting ("Incenta") at the request of the client and for the purpose described herein. This document is not intended to be utilised or relied upon by any other persons or for any other purpose. Accordingly, Incenta accepts no responsibility and will not be liable for the use of this report by any other persons or for any other purpose.

The information, statements, statistics and commentary contained in this report have been prepared by Incenta from information provided by, or purchased from, others and publicly available information. Except to the extent described in this report, Incenta has not sought any independent confirmation of the reliability, accuracy or completeness of this information. Accordingly, whilst the statements made in this report are given in good faith, Incenta accepts no responsibility and will not be liable to any person for any errors in the information provided to or obtained by us, nor the effect of any such errors on our analysis, our conclusions or for any other aspect of the report.

Table of Contents

1.	Introduction and summary	1
1.1	Background and scope of report.....	1
1.2	Summary.....	1
2.	Further analysis	3
2.1	Countries from which profitability benchmarks are drawn	3
2.1.1	Our previous work.....	3
2.1.2	Further observations on the Commission’s sample.....	4
2.1.3	Other issues with deriving comparable returns – data source and firm-level vs. country level estimates.....	6
2.2	Cross checking against bottom-up estimates	9
2.3	Intangible assets and measuring profitability	11
2.3.1	Importance of intangible assets for modern firms.....	11
2.3.2	Relevance when comparing returns between banks	12
2.3.3	Evidence refutes proposition that intangible assets comprise monopoly rent.....	13
2.4	Relative profitability of banks in New Zealand.....	14
2.5	OECD report.....	17

Tables and figures

Table 1 – Returns by country included in the Commission’s sample (average 2010 to 2021)..... 5

Table 2 – Average returns from non-crisis countries, 2010-2021 8

Table 3 – Average return on equity, equity ratio and total assets for the NZ banks (March quarter 2018 to December quarter 2023) 15

Figure 1 – Updated comparison between ANZ’s return on equity and the sample of comparable entities..... 9

1. Introduction and summary

1.1 Background and scope of report

1. We have produced two reports during the Commerce Commission's (Commission) market review of personal banking,¹ the topic of both being the benchmarking of the profitability of the large New Zealand banks.
2. The purpose of this report is to expand upon five specific questions/points, some of which were raised during the Commission's conference on May 2024, and specifically:
 - a. the countries from which the Commission's sample of comparable banks have been drawn
 - b. whether a cross-check should be undertaken against a bottom-up estimate of the cost of capital
 - c. the implications of intangible assets for the benchmarking of profitability
 - d. whether inferences may be drawn from the profitability of the large New Zealand banks relative to the small New Zealand banks, and
 - e. a recent OECD report that commented on the profitability of the New Zealand banks.

1.2 Summary

3. Our key conclusions are as follows:
 - a. *Countries against which the New Zealand banks are benchmarked* – we remain of the view that the profitability of the New Zealand banks should not be benchmarked against firms from the EU/UK and Japan. The evidence suggests that banks in these markets systematically have been earning returns below their costs of capital during the Commission's analysis period. Against our sample of 26 banks – drawn from the US, Canada, Australia, Singapore, Hong Kong, Israel and Norway – ANZ's returns have been reasonable.
 - i. Importantly, we show in this report that the returns earned in eight of the 20 banking systems the Commission applied as benchmarks for the New Zealand banks earned returns that were at or below the risk-free rate of return,² which clearly are not appropriate benchmarks for the New Zealand banks.
 - ii. More generally, our opinion remains that banks in the EU/UK and Japan are unlikely to have earned their cost of capital during the analysis period, and so

¹ Incenta (2023), Benchmarking the profitability of the New Zealand banks against international peers, Report for ANZ, September (Incenta 1); Incenta (2024); Personal banking services market study – response to the Commission's draft report, Report for ANZ, April (Incenta 2).

² To be clear, we are referring here to the whole-of-banking system (i.e., country) returns averaged over the 12 years that the Commission analysed, and not to the average return earned by an individual firm or to the single-year return for a banking system.

the returns earned by these banks are not appropriate benchmarks for the New Zealand banks.

- b. *Bottom-up estimate of the cost of capital* – the Commission should compare the New Zealand banks’ returns against a bottom-up estimate of the cost of capital as a cross check. We produced such an estimate applying the Commission’s standard methods and parameter input values in our first report that the Commission could adopt. We note that, when benchmarking against an estimate of the cost of capital, a reasonable allowance is required for the intangible assets that banks create and employ but cannot normally treat as an asset under accounting rules.
- c. *Omitted intangible assets* – there is substantial economics literature supporting the proposition that modern firms create and employ valuable assets relating to organisational capability that cannot be included in the firm’s books under accounting rules, except where a business is sold (in this case, the asset is reported as goodwill). This literature also emphasises the importance of these omitted intangible assets for banks. When benchmarking returns:
 - i. adjustments must be made to firms’ returns to create a comparable level of booked intangible assets (i.e., some firms may have goodwill, whereas others may not) when comparing returns across firms – this adjustment is required to create a like-for-like comparison irrespective of whether one believes that goodwill should be included in the return denominator, and
 - ii. as noted above, an appropriate allowance is required for these unbooked intangible assets when comparing against a bottom-up estimate of the cost of capital (omitting these assets will lead to measured profitability being overstated) – the importance of these assets in the banking sector means that a material error will result if these assets are simply ignored.
- d. *Large banks vs. small banks* – once allowance is made for the difference in leverage, the observed differences in profitability between the New Zealand banks relate principally to whether the bank needs to raise (common) equity capital from private sector and capital markets. In any event, comparing profit within a market does not provide a test as to whether any of those firms are making a reasonable return, rather an external benchmark is required.
- e. *Other issues* – we do not think the recent OECD country summary contributes any additional information about the profitability of banks as it is largely a summary only of the work of others (including the Commission).

2. Further analysis

2.1 Countries from which profitability benchmarks are drawn

2.1.1 Our previous work

4. We have explained in our previous reports why the Commission should not benchmark the returns of the New Zealand banks against banks from the European Union / UK and Japan. In summary, the evidence demonstrates that those countries have suffered crises aside from the Global Financial Crisis, which have caused their banks' returns to be below the cost of equity for an extended period of time. Our previous reports have:
 - a. explained the deep crises affecting the banking sectors in the countries that we recommend excluding (Incenta 2, para.34)
 - b. explained how macro-economic trends affect the financial performance of the banking sector, and that New Zealand has been much closer to our “included” countries than the “excluded” countries on the important indicators, such as population growth, economic growth, interest rates and inflation (Incenta 1, paras.82-95; Incenta 2, paras.38-40)
 - c. demonstrated that the banks in the excluded countries were materially different to banks in the included countries with respect to:
 - i. the price-to-book ratio (averaged across firms and over the Commission’s 12 year analysis period, Incenta 1, paras.48-50)
 1. as outlined in our reports, most of the countries that we excluded had an average price-to-book ratio of less than 1, and
 2. whilst there are sound reasons to expect a price-to-book ratio of more than one (namely, the presence of intangible assets that are not included in accounting values), a price-to-book ratio of less than one is a strong indicator that the firms are earning a return that is less than their costs of capital, and
 - ii. one-year default risk (averaged across firms and over the Commission’s 12 year analysis period, Incenta 1, paras.48-50)
 - iii. the relative riskiness of the banks’ loan portfolios (as measured by the risk-weighted assets as a proportion of total assets), with the banks from crisis countries having lower risk portfolios, and
 - iv. we further tested the proposition in paragraph 4.c.i.2 above by undertaking our own bottom-up estimates of the cost of equity for firms in two of our peer countries (the US and Australia) and two of the countries that we exclude (the UK and France) and comparing these to the average realised returns for the respective banking systems. We found that the returns in our included countries were generally at or above the cost of capital, whereas the returns in the two

excluded countries were generally materially below the cost of capital (Incenta 2, paras.45-47).

5. Accordingly, we concluded – and our opinion remains – that it is inappropriate to benchmark the returns of the New Zealand banks against banks (or banking systems) from the EU/UK and Japan.

2.1.2 Further observations on the Commission’s sample

6. In this section we explain further our concerns about the countries from which the Commission derived its comparable banking returns, which is illustrated by Table 1 below. In this table, we show:
 - a. the whole-of-banking system returns for the countries the Commission analysed in its sample, sourced from the World Bank database, ordered according to the return on equity (labelled “ROE – World Bank”)³
 - b. the country-average of the banks that we located in each country that met our criteria for inclusion (i.e., being classified by Bloomberg as “non-diversified” and having a market capitalisation of \$US10 billion or more, or \$US5 billion or more where the bank is of regional significance, labelled “Incenta individual firm ROE (Raw)”)
 - c. the country-average of the banks that we located in each country after we made adjustments to make the returns comparable with ANZ, for:
 - i. differences in the amount of goodwill reported on the balance sheet
 - ii. differences in leverage, and
 - iii. differences in the risk-free rate of return between the home-country of the relevant bank and New Zealand (labelled “Incenta individual firm ROE (adjusted)”)⁴ and
 - d. whether we agree or disagree with the inclusion of the relevant country.

³ This column is essentially the same as Figure 6.2 in the Commission’s draft report.

⁴ In the “Incenta individual firm ROE” columns, “n/a” indicates that there were no share market listed banks in the relevant country that meet our criteria. The reasons for this varied – in Switzerland, the largest banks are privately owned (i.e., not share market listed), in France the large banks are diversified (i.e., undertake substantial activities outside of traditional banking), and in Portugal the banks are generally small.

Table 1 – Returns by country included in the Commission’s sample (average 2010 to 2021)

	ROE - World	Incenta individual firm ROE		Included by Incenta?
	Bank	Raw	Adjusted	
Canada	15.0%	18.1%	11.9%	Yes
Hong Kong SAR, China	13.0%	15.5%	16.1%	Yes
Sweden	12.2%	12.3%	9.8%	No
Australia	11.9%	12.8%	9.5%	Yes
Norway	11.7%	11.7%	10.2%	Yes
Singapore	10.2%	11.1%	13.0%	Yes
United States	9.3%	9.4%	13.1%	Yes
Israel	9.2%	8.7%	8.0%	Yes
Belgium	8.9%	8.0%	8.6%	No
Finland	7.9%	10.1%	7.6%	No
Netherlands	7.5%	7.5%	3.1%	No
Austria	7.3%	5.8%	7.6%	No
France	7.1%	n/a	n/a	No
Denmark	6.2%	6.7%	3.7%	No
Japan	4.7%	5.2%	3.1%	No
United Kingdom	3.1%	2.7%	3.4%	No
Switzerland	2.4%	n/a	n/a	No
Germany	0.5%	1.7%	1.3%	No
Italy	-0.6%	0.4%	2.0%	No
Portugal	-5.1%	n/a	n/a	No
Average - all countries	7.1%	8.7%	7.8%	
Average - Incenta countries	11.5%	12.5%	11.7%	
Median - all countries	7.7%	8.7%	8.0%	
Median - Incenta countries	11.7%	11.7%	11.9%	

Sources: World Bank database, Bloomberg and Incenta analysis.

7. We observe that:
 - a. using World Bank data, banks in the last five countries (Portugal, Italy, Germany, Switzerland, and the UK) made a return on equity of less than the average 10 year New Zealand bond yield over the same period (3.4 per cent)⁵ (the risk-free rate in New Zealand)
 - b. in addition, if the observed firm-level returns on equity are adjusted to make them consistent with the return to ANZ,⁶ as we did in our previous reports:
 - i. the average return on equity in Japan and the Netherlands over the period also falls below the risk free rate in New Zealand, and

⁵ The Commission’s draft report used the yield on 10 year New Zealand Government as an indicator of the risk-free rate of return (Draft Report, para.C55).

⁶ These adjustments were described in Incenta 1, para.54, and involved adjusting the observed returns to: (1) reflect a common intensity of goodwill so that the returns are comparable; (2) adjust for differences in Government interest rates between countries, and (3) adjust for differences in the level of leverage.

- ii. the average return on equity in Denmark is only slightly (30 basis points) above the risk free rate in New Zealand, and
 - c. the result is that, after making the adjustments required to make returns comparable, eight of the 20 countries generated an adjusted ROE that is effectively at or below the risk free rate in New Zealand, which accounts for the majority (eight out of 13) of the disputed countries.⁷
- 8. Importantly, these are not single year returns for individual firms, where an unusually low value would be expected to be cancelled out by unusually high values for other firms or in other years. Rather, the returns shown are:
 - a. for the whole of the banking sector in the relevant countries, and
 - b. averaged over the Commission’s 12 year analysis period.
- 9. The fact that the returns from the eight countries that we have identified were at or below the risk-free rate of return – and so clearly below the cost of equity capital – means they cannot be used to provide an indicator of the returns that you should expect from a New Zealand bank. These countries are just the examples where it is the most obvious that the returns to the banking sector have been below the cost of capital. As discussed above, the evidence suggests that the banking sectors in the other EU countries the Commission has considered have earned materially less than their cost of capital over the analysis period, and so also are not an appropriate benchmark for the New Zealand banks.

2.1.3 Other issues with deriving comparable returns – data source and firm-level vs. country level estimates

- 10. We also explained in our previous reports that there were further issues with the data source the Commission has applied to derive its comparable returns, which is the World Bank database. The issues that we raised were that:⁸
 - a. this database does not contain all of the information required to make returns comparable with those of a New Zealand bank, namely information on leverage and the level of goodwill on the banks’ balance sheets
 - i. importantly, knowledge of the level of goodwill that is included in each bank’s total assets (and hence equity) is required so that returns can be made comparable, and

⁷ We are assuming here that the observed returns to both Portugal and Switzerland would remain at or below the New Zealand risk-free rate of return if the comparability adjustments discussed earlier were able to be made. The large negative return for Portugal suggests this outcome is almost certain. In addition, the fact that government bond rates in Switzerland were amongst the lowest in Europe during the analysis period (with the 10 year Swiss Government bond rate being negative for seven of the 12 years) suggests that this outcome is also almost certain for Switzerland.

⁸ Incenta 1, para.27, Incenta 2, para.56.

- ii. this comparability adjustment is required irrespective of whether one decides that goodwill should be included or excluded (or adjusted in some way)
 - b. there is no transparency as to the composition of the sample in each country
 - i. we further commented that if the data is comprehensive, then it would include banks that have operations outside of traditional banking (i.e., investment banking), and indeed may be dominated by such firms in some countries, and that
 - ii. including the diversified banks is likely to have reduced further the measured returns in the crisis countries, and
 - c. the use of country-level observations naturally assigns an equal weight to each country, irrespective of its size, or to the number of banks that are included in each country's data, which we think is inappropriate.⁹
- 11. We have advocated instead estimating the comparable returns by establishing a set of comparable firms that are drawn from comparable countries, and to observe the averages, medians and interquartile ranges across those firm-level observations. In our reports, we applied a sample of 26 firms from seven countries (US, Canada, Australia, Hong Kong, Singapore, Israel and Norway).
- 12. Whether you derive comparable returns by averaging across the firm-level data, or by first averaging at the country level, does not have a large impact on the returns that are derived. Table 2 sets out the average returns that we derived for the 26 firms over the Commission's analysis period, with summary statistics provided based both on firm level observations as well as from averaging first at the country level. This table also shows the effect of the three adjustments that we made (for relative goodwill, leverage and relative Government interest rates) at the level of each firm and averaged for each country.

⁹ We say this because the reliability of the data is likely to increase with the number of observations that are available, because with greater numbers the effect of idiosyncratic factors are better able to be removed (for example, by considering averages or medians). Applying firm-level data naturally assigns weight according to the number of observations that are available. In contrast, considering country level aggregates will apply the same weight to a banking sector comprising two banks as it would to another sector comprising 200 banks, and so apply a high weight to data that may be unreliable, and a correspondingly low weight to data that is reliable.

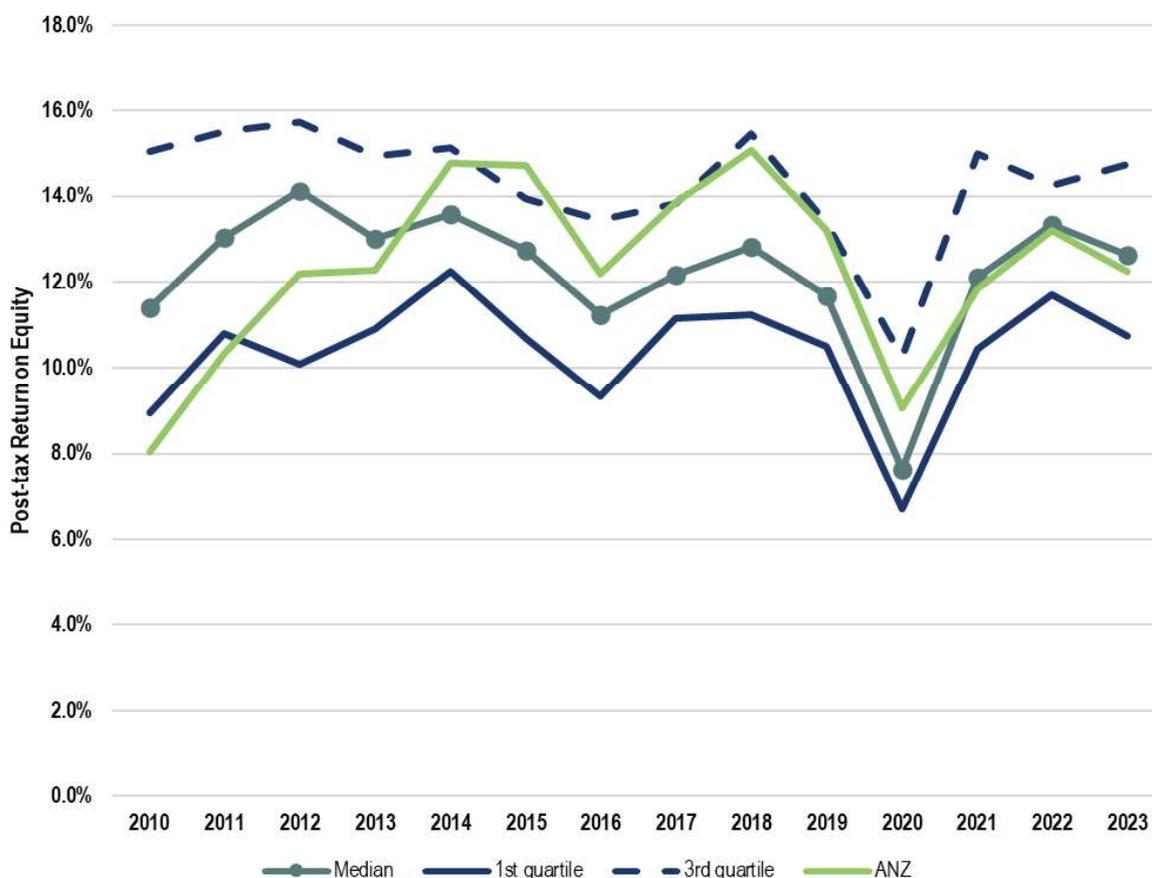
Table 2 – Average returns from non-crisis countries, 2010-2021

	Country	Raw Leverage (Equity ratio)	Raw ROE	Goodwill Adjustment	Interest rate Adjustment	Leverage Adjustment	ROE after Adjustments
By firm:							
Commonwealth Bank of Australia	Australia	6.3%	16.1%	-3.2%	0.3%	-1.1%	12.0%
National Australia Bank Ltd	Australia	6.1%	10.0%	-2.6%	0.3%	-0.9%	6.7%
Westpac Banking Corp	Australia	6.9%	13.1%	-2.2%	0.3%	-0.7%	10.4%
ANZ Group Holdings Ltd	Australia	6.4%	12.1%	-2.8%	0.3%	-0.8%	8.8%
National Bank of Canada	Canada	5.2%	18.1%	-5.7%	1.3%	-1.9%	11.9%
BOC Hong Kong Holdings Ltd	Hong Kong	8.8%	14.0%	-3.2%	1.5%	2.1%	14.5%
Hang Seng Bank Ltd	Hong Kong	9.7%	16.9%	-3.6%	1.5%	2.9%	17.7%
Bank Leumi Le-Israel BM	Israel	7.0%	8.8%	-2.3%	0.8%	0.4%	7.8%
Bank Hapoalim BM	Israel	7.5%	8.7%	-2.2%	0.8%	0.9%	8.1%
DNB Bank ASA	Norway	7.1%	11.7%	-3.0%	1.3%	0.2%	10.2%
DBS Group Holdings Ltd	Singapore	9.6%	10.7%	-1.3%	1.4%	1.8%	12.6%
Oversea-Chinese Banking Corp Ltd	Singapore	9.5%	11.5%	-1.7%	1.4%	1.9%	13.1%
United Overseas Bank Ltd	Singapore	9.8%	11.2%	-1.2%	1.4%	1.9%	13.3%
Wells Fargo & Co	US	10.4%	11.3%	-1.0%	1.2%	2.3%	13.8%
US Bancorp	US	10.6%	14.5%	-0.1%	1.2%	1.9%	17.4%
PNC Financial Services Group Inc/The	US	12.7%	10.5%	0.2%	1.2%	3.6%	15.6%
Truist Financial Corp	US	12.5%	8.5%	1.5%	1.2%	2.1%	13.3%
M&T Bank Corp	US	12.6%	10.0%	1.6%	1.2%	2.4%	15.2%
Fifth Third Bancorp	US	11.5%	11.0%	-0.4%	1.2%	3.1%	14.8%
Huntington Bancshares Inc/OH	US	10.1%	9.9%	-1.0%	1.2%	2.2%	12.3%
Regions Financial Corp	US	12.9%	6.4%	1.0%	1.2%	2.7%	11.2%
KeyCorp	US	11.2%	9.1%	-0.7%	1.2%	3.3%	12.8%
First Horizon Corp	US	10.6%	6.6%	-0.1%	1.2%	2.6%	10.2%
First Citizens BancShares Inc/NC	US	9.0%	9.9%	-1.7%	1.2%	1.8%	11.2%
Comerica Inc	US	10.5%	9.0%	-1.1%	1.2%	3.1%	12.1%
Zions Bancorp NA	US	11.5%	6.0%	-0.4%	1.2%	3.3%	10.1%
Average		9.5%	11.0%	-1.4%	1.1%	1.6%	12.2%
Median		n/a	10.6%	n/a	n/a	n/a	12.2%
By country:							
Australia		6.4%	12.8%	-2.7%	0.3%	-0.9%	9.5%
Canada		5.2%	18.1%	-5.7%	1.3%	-1.9%	11.9%
Hong Kong		9.2%	15.5%	-3.4%	1.5%	2.5%	16.1%
Israel		7.3%	8.7%	-2.2%	0.8%	0.6%	8.0%
Norway		7.1%	11.7%	-3.0%	1.3%	0.2%	10.2%
Singapore		9.6%	11.1%	-1.4%	1.4%	1.9%	13.0%
US		11.3%	9.4%	-0.2%	1.2%	2.7%	13.1%
Average		8.0%	12.5%	-2.7%	1.1%	0.7%	11.7%
Median		n/a	11.7%	n/a	n/a	n/a	11.9%

Source: Bloomberg and Incenta analysis. We have suppressed the median values for the equity ratios and adjustments to avoid confusion (the median equity ratio and adjustment may not correspond to the median ROE).

- Including the additional two years that are now available does not alter our conclusions about ANZ’s performance relative to the comparable entities. ANZ has tracked the median of our sample during the last two years. These updated results – in terms of the median and interquartile range from our sample – are shown in Figure 1.

Figure 1 – Updated comparison between ANZ’s return on equity and the sample of comparable entities



14. ANZ’s average return on equity was 12.3 per cent over the period between 2010 and 2021. Comparing this to the estimated returns for the peer firms set out in Table 2 (noting that these latter returns have been adjusted to provide a like-for-like comparison) does not provide any evidence that ANZ’s returns have been anything but normal. This conclusion is further evidenced by Figure 1, where it can be seen that ANZ’s returns have been within the interquartile range of the sample for all but three years (and in two of which it was below the median), and that this outcome has continued in the two additional years that are now available.

2.2 Cross checking against bottom-up estimates

15. Unlike in previous market studies, the Commission has chosen not to benchmark the returns of the New Zealand banks to a bottom-up estimate of the cost of capital, even as a cross-check. Indeed, we note that in previous studies, such a comparison was the Commission’s principal test of the reasonableness of profitability.
16. Whilst we have cautioned about placing excessive weight on a comparison against bottom-up estimates of the cost of capital, our opinion remains that such a comparison provides a very valuable cross-check, and should be considered by the Commission.

17. Deriving a bottom-up estimate of the cost of capital is a reasonably straightforward exercise given that:
 - a. the Commission has a well-established method for estimating the cost of equity (the simplified Brennan-Lally model) and has settled on parameter estimates or methods for the market-wide inputs to this model, and
 - b. the principal difficulty typically encountered when attempting to estimate the cost of capital – namely, that estimating the firm-specific input (the beta, being the measure of relative risk) requires a large sample of comparable firms that are listed on share markets – is less of a constraint for the banking sector as banks are typically listed on share markets in most countries.
18. Accordingly, we undertook this exercise, applying the Commission’s standard techniques. Our estimates are available for the Commission to apply. Our finding was that ANZ’s average returns over the Commission’s analysis period were materially the same as our estimate of the cost of capital.
19. We acknowledge, however, that how you interpret a comparison between a return on equity and the cost of capital requires you to address the question of whether banks have valuable intangible assets that need to be included in the asset base in order to provide an economically meaningful comparison. We turn to this issue in section 2.3.
20. During the conference, the comment was made that New Zealand is riskier than many of the other countries against which the banks’ returns have been compared, and that allowance is required for this. Examples of this greater risk included that New Zealand is at the end of global supply chains, and suffers a greater frequency of natural disasters that affect major population centres than many other countries. These issues may be addressed by ensuring that the benchmarking of the New Zealand banks’ returns is carried out appropriately, and may also suggest some conservatism in the analysis that we have performed:
 - a. first, the differences in the risk-free rate of return between countries is likely to allow for part of this risk differential that was referred to (Government interest rates in New Zealand are typically higher than overseas). A bottom-up estimate of the cost of capital will naturally factor in the higher risk-free rate of return in New Zealand, and we have also recommended adjusting for differences in risk-free returns when comparing the returns of New Zealand banks to those in other countries.
 - b. secondly, whilst the Commission’s past work on the regulated infrastructure sectors suggests the overall market risk premium required in New Zealand is similar to that of other countries, it is possible that the relative risk (i.e., the beta after adjusting for leverage) of the New Zealand banks is higher than the overseas comparators.¹⁰ We have simply applied the average beta that we estimated for our comparable banks

¹⁰ The greater exposure to natural disasters may affect the systematic risk of the New Zealand banks as such events typically move the New Zealand share market, but may affect the banks to a greater extent (i.e., by affecting directly the value of the properties that secure loans).

when deriving our bottom-up estimates, and so this may imply there is an element of conservatism in our work, and

- c. thirdly, the New Zealand banks are likely to be exposed to what the Commission refers to as asymmetric downside risks, meaning that part of the return on equity that is measured is essentially a compensation for this risk (akin to recovery of a self-insurance premium). We have essentially assumed that any self-insurance premium embedded in the New Zealand banks' returns is immaterial (when comparing to a bottom-up estimate of the cost of capital) or the same as overseas firms (when benchmarking against the returns of the comparable banks). To the extent that New Zealand banks are exposed to material downside risks (and higher risks than banks overseas) then this may be a further conservative element of our analysis.

2.3 Intangible assets and measuring profitability

2.3.1 Importance of intangible assets for modern firms

21. Our previous reports have provided a detailed summary of the economic literature around omitted intangible assets.¹¹ The essence of this literature is that modern firms undertake substantial investments in valuable economic assets that are not able to be recognised as assets for accounting purposes,¹² and so do not (generally) appear in a firm's balance sheet. The exception to this is where a firm is traded, in which case part of the purchase price may reflect the intangible assets that are purchased and those assets are recorded as goodwill. A theoretically-correct recognition of intangible assets would imply that the book value of firms would be higher (reflecting past investments in all intangible assets, irrespective of whether a firm had been traded), but leave the level of annual profit approximately unchanged.¹³ Thus, compared to this theoretically-correct result, the book value of assets would understate the value of assets employed, albeit with this effect differing across firms depending whether the firm in question has recently acquired assets (and so may have a goodwill component). Our previous work summarised:
 - a. the economic literature about the general concept of omitted intangible assets (Incenta 1, paras.72-73; Incenta 2, paras 71-73)

¹¹ Some intangible assets that firms create can be recognised as an asset for accounting purposes, which include software and specific investments in a brand. We use the term "omitted intangible assets" to refer to the class of assets that may be created but cannot be recognised as an asset for accounting purposes.

¹² The intangible assets that cannot be recognised for accounting purposes that are most relevant to banking services fall under the category of "operational capability", which includes the establishment of a staff base and operating structure and procedures, the creation of networks and logistics links, and the creation of a brand. Certain assets created via research and development activities are another potential source of omitted intangible assets.

¹³ When in a stationary position, operating expenses would be lower (i.e., as a portion of operating expenses would be reclassified as investment in intangible assets), but would be replaced with an equivalent increase in depreciation (i.e., depreciation of the intangible assets).

- b. estimates from the economic literature about the approximate magnitude of intangible assets across a variety of sectors (Incenta 1, paras 74-75)
 - c. the importance of “organisational capability” within the omitted intangible assets (Incenta 1, para.76)
 - d. that accounting for intangible assets can explain the apparent increase in Tobin’s Q ratios (the ratio of the market value of assets to their replacement cost) over recent decades (Incenta 1, para.77)
 - e. the evidence from the economics literature that goodwill cannot be summarily dismissed as a capitalisation of monopoly rent (Incenta 2, para.73), and
 - f. economics and other literature that has observed the importance of omitted intangible assets in the banking sector specifically (Incenta 1, paras 78-80, Incenta 2, paras.74-76)
22. The presence of intangible assets creates two issues when benchmarking returns.
- a. first, if returns are being compared across firms, then an adjustment will be required to ensure that a like-for-like comparison is being made. This is because two otherwise identical firms will have a different measured return on equity if one has been traded and the other has not (i.e., the former will have additional assets – the intangible assets – included in its equity value, and so a lower measured return), and
 - b. secondly, if returns are being compared to a bottom-up estimate of the cost of capital, then the firm’s return will be overstated unless an appropriate allowance is first made for intangible assets.
23. We address the issues with comparing returns across firms, and comparing the returns of the New Zealand banks to a bottom-up estimate of the cost of capital, below.

2.3.2 Relevance when comparing returns between banks

24. There are different ways in which the returns to firms can be adjusted to make them comparable with respect to the extent to which these omitted intangible assets may be recognised in their asset values (and equity values). The two options that we discussed in our first report were to:
- a. adjust the equity value of each firm so that there is a goodwill component that matches that of the firm being benchmarked¹⁴ – this was the approach that we took in our first report, where we adjusted the measured returns for our sample of comparable entities to match the goodwill intensity of ANZ, and
 - b. adjust the equity value of all firms to remove any goodwill that was reported on the balance sheet, although noting that whilst these returns will be comparable, the fact

¹⁴ Specifically, this involves adjusting the goodwill on the balance sheet for each firm so that goodwill is the same proportion of total assets as the firm being benchmarked.

that the equity value makes no allowance for investments in intangible assets means that the returns will be overstated.

25. These different approaches in relation to goodwill result in a very similar outcome when comparing ANZ's returns to our set of comparable entities.¹⁵ Indeed, this can be demonstrated simply in mathematical terms. The return on equity values that we reported for ANZ and the comparable entities in our first report were all derived on the assumptions that goodwill is equal to 2.3 per cent of total assets (inclusive of goodwill), and for an equity ratio of 8.7 per cent (inclusive of goodwill). It is straightforward to show mathematically that, under these assumptions, the removal of goodwill will cause:¹⁶
- a. the equity balance for ANZ and the comparable banks to change (reduce) by a factor of 0.74, and
 - b. the return on equity ANZ and the comparable banks to change (increase) by the reciprocal, being a factor of 1.35.
26. That is, removing goodwill would cause the measured returns for ANZ and the measured returns of the comparable banks to increase by the same multiple, and our conclusion – namely, that ANZ's return is materially the same as the average of the comparable banks – would remain unchanged. We reiterate, however, that the returns that are derived after the exclusion of goodwill will be an overstatement of the economically correct value for the reasons provided in paragraph 24 above.

2.3.3 Evidence refutes proposition that intangible assets comprise monopoly rent

27. We are aware that the Commission's concern about the goodwill component on firms' balance sheets is that this will not reflect assets that have been created and employed to provide services, but rather will reflect a capitalisation of monopoly rent.¹⁷ We addressed this proposition generally in Incenta 2,¹⁸ where we noted that:
- a. the Commission's conclusion ignores the substantial economic literature on omitted intangible assets, and

¹⁵ Incenta 1, footnote 26 also made this observation.

¹⁶ These multipliers assume that profit is unchanged after the removal of goodwill. In practice, profit will increase slightly as the amortisation of goodwill is removed. However, this effect will be small (we applied ANZ's goodwill amortisation rate to all firms, which was low on average) and proportionate to the amount of goodwill, which in turn we assumed to be a constant proportion of total assets across all firms.

¹⁷ Commerce Commission (2024), Personal Banking Market Study – Draft Report, para.C.49.

¹⁸ Incenta 2, paras.71-73.

- b. within that literature, there is substantial empirical evidence that the goodwill that arises as a consequence of asset transactions may reflect valuable assets rather than a capitalisation of rent.¹⁹

28. We also noted in our previous report, in the sample of banks that we compiled, the greatest goodwill intensity was for the US banks, which also operate in the market that is most likely to have the greatest degree of competition.²⁰ This observation is inconsistent with the view that goodwill is wholly a capitalisation of monopoly rent. We also noted in our earlier report that the average goodwill intensity of the US banks (2.1 per cent) was very close to that of ANZ (2.3 per cent) over the analysis period.²¹ Lastly, we reiterate that the extent of goodwill that is observed at any point in time is likely to be an underestimate of the value of the intangible assets that are employed by a firm because the goodwill:

- a. will only ever capture the value of the intangible assets that the firm had purchased as part of an acquisition, and will exclude the value of intangible assets (of the type that we discuss here) that were created internally by the acquiring firm, and
- b. will tend to understate the value of the underlying intangible assets (and with this effect increasing over time) as the expenditure on replacing or enhancing the intangible assets is unable to be booked as an asset.

2.4 Relative profitability of banks in New Zealand

29. We are aware that the smaller banks operating in New Zealand generally (but not universally) have made lower returns than the large New Zealand banks. The average return on equity for the 15 banks registered in New Zealand reported on the RBNZ's website is set out in column [1] of the table below, together with each bank's average equity ratio and total assets for context in columns [2] and [3].

¹⁹ The study that we referred to was: Ewens, Michael, Ryan H Peters, and Sean Wang, (2020), "Measuring intangible capital with market prices," Technical report, URL https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3287437, which analysed the outcomes of 1,521 transactions.

²⁰ Incenta 2, footnote 44.

²¹ Incenta 1, paragraph 71(c)(ii). We also noted in our first report that the Commission cleared ANZ's purchase of National Bank on the basis that it would not substantially lessen competition, which also suggests that the goodwill present on ANZ's balance sheet is not a capitalisation of monopoly rent (Incenta 1, para.71(c)(i)).

Table 3 – Average return on equity, equity ratio and total assets for the NZ banks (March quarter 2018 to December quarter 2023)

	[1]	[2]	[3]	[4]
	Return on equity (unadjusted)	Equity ratio (unadjusted)	Total assets (unadjusted)	Return on equity - adjusted to ANZ's goodwill and leverage
ASB	14.75%	8.07%	110,772	13.01%
BNZ	12.94%	7.96%	116,508	11.35%
ANZ	12.10%	8.85%	180,666	12.05%
Westpac	11.36%	7.65%	107,283	9.78%
Heartland	11.11%	13.94%	4,688	14.17%
SBS	8.72%	7.76%	5,133	7.53%
China Construction Bank	7.36%	12.56%	2,015	9.73%
Rabobank	6.98%	13.62%	13,320	9.86%
Kiwibank	6.98%	6.71%	27,587	5.03%
Bank of China	6.55%	9.64%	2,820	7.46%
Industrial and Commercial Bank of China	5.66%	12.03%	2,218	8.04%
TSB	5.24%	8.25%	8,509	5.04%
The Co-operative Bank	5.04%	7.30%	3,077	4.08%
Bank of Baroda	2.78%	36.20%	139	9.33%
Bank of India	2.60%	51.31%	118	9.79%

Source: <https://bankdashboard.rbnz.govt.nz/summary>, “Just give me all the data” button, Incenta analysis.

30. The Commission asked during the conference whether it can draw inferences from the relative profitability of the large and small banks. For example, whether it could infer that the smaller banks are operating below normal returns, and to wonder how they are surviving.
31. In our view, however, it is not possible to draw simple conclusions from the relative returns of the New Zealand banks.
32. Importantly, whilst the large banks made an average return over the period that was higher than the remaining banks, they also typically had the lowest average equity ratios (i.e., were more highly levered). When adjustments are made to the returns on equity to standardise for the differences in leverage and goodwill,²² we find that, as shown in column [4] of Table 3:²³
 - a. Heartland Bank has the highest (adjusted) return on equity of all New Zealand banks – this example is telling because it is the only bank (outside the 4 Australian-owned banks) that is listed on the ASX and NZX and so must raise and retain equity funds from the local equity market, and

²² Our adjustment to standardise for goodwill assumes that the reported CET1 deductions comprise only goodwill, which should be approximately correct (ANZ's goodwill averaged 1.75 per cent of total assets over the 2018 to 2021 period, whereas its CET1 deductions averaged 2.03 per cent of total assets). The RBNZ website does not report goodwill values.

²³ In this table, we estimate the returns on equity consistent with a common leverage level (for which we use ANZ's leverage) by adding or deducting the change in the cost of equity that would be caused by the difference between the relevant bank's leverage and the common leverage level. This is the same method that we applied to standardise the returns of the comparable entities in our first report (see Incenta 1, para.54(c)).

- b. the average returns on equity for four other banks (Rabobank, China Construction Bank, Bank of Baroda and Bank of India) increase to become materially the same as the large New Zealand banks, and indeed two of these banks had an average (adjusted) return on equity that is higher than that of Westpac.
33. In terms of the remaining banks, two (Industrial and Commercial Bank of China and the Bank of China) are local subsidiaries of extremely large majority government owned banks (the Industrial and Commercial Bank of China is reported to be the largest bank in the world by total assets), and it is possible that strategic considerations have had a bearing on the returns the banks have been willing to accept. The remaining banks are also either government owned (Kiwibank) or have alternative ownership structures (i.e. cooperatives (The Co-Operative Bank and SBS) or are owned by a foundation (TSB)). In terms of these banks:
 - a. The Co-Operative Bank, SBS and TSB do not raise common equity capital – rather, this is built up over time as retained earnings – and so there is no pressure for the return on equity to be commensurate with the return required to attract private investment and capital market funds,²⁴ and
 - b. the final bank (Kiwibank) is a state-owned enterprise, and so all of the equity – and any additions of capital that take the form of common equity²⁵ – is provided by the government. Accordingly, again, there is no necessary requirement for the returns generated on this equity to be consistent with the requirements of private sector and capital market investors.
34. Our analysis of the evidence suggests that there is less of a large / small divide in the returns of the New Zealand banks, but rather a difference that depends on the governance arrangements and, more specifically, the pressure to earn a commercial return on equity capital.
35. More generally, comparing the returns of the large and small New Zealand banks does not allow one to distinguish between the different competing theories, such as whether:
 - a. the large banks are making normal returns while the small banks are making sub-normal returns, or
 - b. the small banks are making normal returns and the large banks are making excess returns, as the Commission’s questions suggested it may believe, or

²⁴ This is consistent with the observations the RBNZ has made about the challenges faced by mutual banks raising CET1 capital as currently defined (see: <https://www.rbnz.govt.nz/hub/news/2023/07/mutual-capital-instrument-rules-near-completion>).

²⁵ We note that Kiwibank does have perpetual preference shares that were issued to the private sector, and that qualify as Additional CET1 capital. This capital would need to earn a commercial return. However, the returns that are paid on these instruments are at a fixed distribution rate akin to debt finance (the current Kiwibank perpetual preference shares have a distribution rate of 4.93 per cent per annum, which is to be reset at 5-yearly intervals at 2.60 per cent plus the prevailing swap rate: see <https://www.kiwibank.co.nz/about-us/governance/investor-centre/kiwibank-capital-instruments/>). Our comment about common equity refers to the classic definition of equity, as being the residual claimants of cash flow, whose distributions will depend, amongst other things, on profit outcomes.

- c. both the small and large banks are making excess returns (with the returns to the larger banks more excess), or both small and large banks are making sub-normal returns (with the returns to the small banks more sub-normal).
36. Rather, the only way to distinguish between these competing theories is to compare to the returns of the New Zealand banks to an exogenous benchmark, such as the returns to comparable banks (drawn from appropriate countries) and a bottom-up estimate of the cost of capital.

2.5 OECD report

37. Participants at the conference referred to a recent report from the OECD that referred to the profitability of the New Zealand banks.²⁶ We have reviewed that document, and observe that it does not add any substantial new analysis, but rather merely reports on the work of the RBNZ and that of the Commission itself.
38. Indeed, the OECD work does not adopt the improvements the Commission made over the work of the RBNZ in that its main exhibit (Figure 3.6):
- a. benchmarks a pre-tax measure of returns, which disadvantages New Zealand firms, and
 - b. analyses a period that goes back to 2000, which is less relevant to today's conditions and is made more difficult to interpret as it includes the global financial crisis period, which is excluded from the Commission's analysis period.²⁷
39. In addition, the material relied upon by the OECD is subject to the same criticisms we have made of the Commission's analysis, including that:
- a. the measure of risk in the main exhibit (Figure 3.6, the measure being the standard deviation of profit) is a poor measure of the risk that affects the cost of capital, and the relationship depicted in the main exhibit is counter-intuitive in any event
 - b. whilst there are acknowledgements that the cost of capital of the New Zealand banks may differ to the overseas sample, no attempt is made to make the required adjustments, and
 - c. no cross-check is undertaken of the returns of the New Zealand banks against a bottom-up estimate of the cost of capital.
40. Accordingly, we conclude that:

²⁶ OECD (2024), Economic Surveys – New Zealand, May, pp.60-62.

²⁷ The Reserve Bank of Australia states that “[t]he global financial crisis (GFC) refers to the period of extreme stress in global financial markets and banking systems between mid 2007 and early 2009” ([https://www.rba.gov.au/education/resources/explainers/the-global-financial-crisis.html#:~:text=The%20global%20financial%20crisis%20\(GFC,mid%202007%20and%20early%202009\).](https://www.rba.gov.au/education/resources/explainers/the-global-financial-crisis.html#:~:text=The%20global%20financial%20crisis%20(GFC,mid%202007%20and%20early%202009).))

- a. no additional insights may be gained into the profitability of the New Zealand banks from the OECD's recent country summary, and
- b. the OECD's work is subject to a number of defects, most notably those features that crossed over with the Commission's benchmarking that we criticised in our earlier report, as summarised in paragraph 39 above.