

**Personal banking services  
market study – response  
to the Commission’s draft  
report**

**Report for ANZ**

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## 1. Executive Summary

### 1.1 We are responding to issues relating to the Commission's draft report

1. On 21 March 2024 the Commerce Commission (the Commission) published its draft report titled "Personal banking services market study" and called for comments from stakeholders.<sup>1</sup> In its analysis and in drawing its conclusions the draft report contains a number of references to our previous report, which formed part of the ANZ Bank's (ANZ) submission.<sup>2</sup>
2. The key finding of our previous report was that that ANZ's average post-tax return on equity (12.3 per cent) over the 2010 to 2021 period was "normal" and was:<sup>3</sup>
  - a. materially the same as the average post-tax returns (12.2 per cent) of its peer group of international banks when compared on a like-for-like basis, and
  - b. toward the lower end of our bottom-up estimate of the average cost of equity for ANZ over this period (12.1 per cent to 12.8 per cent).
3. Our conclusions were based analysing a **peer group of international banks** that are comparable to the NZ banks (we derived a sample of 26 comparable entities), i.e., that:
  - a. operate principally in countries that had not experienced a long-running banking sector crisis and share similar demographic and macro-economic characteristics to New Zealand
  - b. for which traditional banking activities in their home country comprise their principal activities (which are labelled as "non-diversified" in the Bloomberg database), and
  - c. making appropriate adjustments to ensure that comparisons drawn were valid.
4. In contrast, the Commission's draft reports a 12.6 per cent return on equity (ROE) for New Zealand, which has since 2011 been higher than the upper quartile ROE of 10.5 per cent the Commission reports for its sample of 20 comparator countries (excluding New Zealand). However:
  - a. the Commission's conclusions were based on country-level aggregated data published by the World Bank, spanning a set of 20 countries many of which have suffered from an on-going banking crisis across an extended period, and
  - b. in contrast to us, the Commission did not estimate a bottom-up cost of capital for New Zealand banks.

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<sup>1</sup> Commerce Commission, (21 March, 2024), Personal banking services market study, Draft report.

<sup>2</sup> Incenta Economic Consulting, (September, 2023), Benchmarking the profitability of the New Zealand banks against international peers.

<sup>3</sup> Incenta Economic Consulting, (September, 2023), para. 5, and Table 3, page 18.

5. In this report we respond to three key issues relating to the Commission's draft report, which have material impacts on the conclusions it draws.
- a. *source of countries from which the sample of comparable banks is established* – the Commission's only method for testing the reasonableness of returns of the NZ banks is to compare this to the observed accounting returns of peer banks from other countries. A principal source of disagreement between the Commission and us is the range of countries from which these peer banks are sourced. In our view, the Commission has drawn the majority of its profitability benchmarks from countries where the banking sector overall has suffered poor financial performance (most importantly earning a return on equity below the cost of capital) for an extended period (itself a function of the various banking crises that for most countries started with the Global Financial Crisis (GFC)), which do not provide a fair benchmark for the return that is required to continue to attract investment in the banking sector in NZ.<sup>4</sup> We elaborate on this below
  - b. *deriving profitability benchmarks from peer firms* – we also think the Commission has made a number of material errors when constructing its profitability benchmarks. First and foremost, by using aggregated country level data rather than its own sample of peer companies, the Commission has applied a data source for its analysis that is non-transparent, inadequate for the task at hand, and marks a departure from the Commission's previous practice.<sup>5</sup> In addition, the Commission has also incorrectly dismissed issues that are important for understanding the profitability of the NZ banks, including differences between interest rates in NZ and other countries, the relative leverage of the NZ banks, and the importance of intangible assets, and
  - c. *failure to make a comparison against a bottom up estimate of the cost of capital* – the Commission chose not to compare the returns of the NZ banks against a bottom-up estimate of the cost of capital. The failure to compare against a bottom-up estimate of the cost of capital was a fundamental departure from the Commission's previous practice, although it did not provide any reasons for this change. Whilst we have cautioned about the weight that should be placed on comparisons against a bottom-up estimate, we find that such an analysis would have demonstrated that (i) the Commission's profitability benchmarks were not appropriate, and (ii) if the analysis is undertaken correctly (including that proper allowance is made for intangible assets) the average returns of the NZ banks over the assessment period has been within the range of normal returns.

## 1.2 Issue 1: Excluding banks from "crisis countries"

6. The Commission's draft report has misunderstood the reason that our previous report excluded countries where there has been an on-going banking crisis. The Commission

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<sup>4</sup> The return that investors would require to invest in the banking sector in New Zealand is equal to the return that could be made by investing elsewhere (i.e., in other assets), after adjusting for relative risk. This is often referred to as the opportunity cost of capital, or simply as the cost of capital.

<sup>5</sup> The Commission applied a World Bank data set, which presents aggregated data of certain variables at a country level. In previous matters – and that we followed in our report – the Commission has established its own sample of peer companies, and derived its own measures of financial performance, using Bloomberg as a data source.

criticised our argument to exclude observations from countries where the banking sector had suffered from banking crises on the basis that we had not explained how the banking sectors in these countries had greater risk. The Commission also suggested that its profitability observations may even be upwards biased because banking in the crisis countries (which we argued to exclude) may be higher risk.

7. For the avoidance of doubt, we did not argue for excluding observations from countries that had suffered banking crises on the basis that there was a difference in the inherent risk of banking activities in those countries. Rather, we said that, given the Commission's purpose in observing profitability for peer firms is to determine what may be a reasonable return in NZ – meaning a return that is consistent with a firm's cost of capital – it simply makes no sense to take observations from countries where the whole of a banking sector has suffered from poor financial performance over an extended period.<sup>6</sup>
8. In addition, the Commission also incorrectly asserted that we excluded any bank from our sample where the price-to-book ratio for the firm was less than 1. The Commission said that this would create a biased sample – that is, one that is engineered to produce a high benchmark for a reasonable return. However, we did not exclude individual firms from our sample based on their price-to-book ratios, rather we simply observed one of the stand-out features of the “crisis countries” was that the average price-to-book ratio across the *whole of the banking sectors* in those countries had been less than 1 for an extended period. We said that this was a further indicator that the observed returns in those countries would not present a reasonable benchmark for NZ banks.
9. In this report, we present additional material that corroborates the conclusions in our earlier report that observations should exclude crisis countries where the objective is to derive a benchmark for a reasonable profit for the NZ banks.
  - a. McKinsey's *The Global Banking Annual Review 2023* observes that banks in several regions around the world banks are failing “to generate their cost of capital”<sup>7</sup>
  - b. analysis by David Norman (2017) in the Reserve Bank of Australia's (RBA) *Bulletin*,<sup>8</sup> demonstrates the relationship between ROE, the cost of equity (COE) and the Price / Book ratio: “PB (Price / Book) ratios for many global banks nevertheless remains low, reflecting concerns over the future value of their assets and profitability.” Norman also refers to the importance of accounting for intangible assets in banking when interpreting profitability, and
  - c. we have also undertaken our own bottom-up estimates of the cost of capital for two of the “crisis countries” (UK and France), as well as for two of the countries where we argued the banking sector has not been subject to ongoing crises (USA and Australia).

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<sup>6</sup> In more formal terms, our objection was not that the banking sectors in the countries in question faced more risk – which is a probabilistic concept – but rather that these countries had seen a very material risk materialise, which in turn has caused their (observed) profitability to fall below their cost of capital.

<sup>7</sup> McKinsey & Company (October, 2023), *The Great Banking Transition*, The Global Banking Annual Review 2023.

<sup>8</sup> David Norman, (March Quarter, 2017), *Bulletin*, Reserve Bank of Australia, pp.51-58.



We find that, over the 12 year assessment period, the average accounting returns in the two “crisis countries” has been materially below the cost of equity, whereas the average returns in the other countries has been around, or slightly above,<sup>9</sup> our estimate of the cost of equity. We conclude that this sustained poor financial performance in the crisis countries means that they cannot provide a reasonable benchmark for the NZ banking sector.

10. Including countries where the banking sector had suffered crises had a material effect on the Commission's estimate of the benchmark return on equity. Excluding the crisis countries increases the benchmark return on equity as the Commission has measured it using World Bank data from 7.1 per cent (excluding NZ) to 11.5 per cent, prior to any adjustments being made. Indeed, this value *is higher* than the value of 11.0 per cent that we derive (prior to any adjustments being made) based upon the average of the individual banking firms that we identified from our comparable countries that are most closely focussed on traditional banking activities.<sup>10</sup>
11. Among firms from the crisis countries that the Commission includes in its sample of peers, we found the average ROE of diversified banks to be *lower*, at 4.5 per cent, than that of the entities involved principally in traditional banking (the “non-diversified banks”, which had an average ROE of 6.6 per cent). Thus, the banking crises and other factors appeared to have a higher negative impact on the non-traditional banking activities (like investment banking).
  - a. a corollary of this is that the ROE against which the Commission has benchmarked the NZ banks' returns has been dragged down in the crisis countries by the outcomes for activities that are irrelevant to the Commission's work, and
  - b. moreover, as the diversified banks in some of the crisis countries are likely to have a high weight in the World Bank data, this effect may be material.<sup>11</sup>
12. Including the observations from the crisis countries has also affected the Commission's views on the merits of adjustments to these raw profitability benchmarks (principally relating to leverage), which we return to under Issue 2. In addition, including the crisis countries affected a key finding of the Commission's that the NZ banks have both a high

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<sup>9</sup> As we explain below, the presence of intangible assets (which is economic capital that firms create, but cannot include on the balance sheet under prevailing accounting standards) means that it would ordinarily be expected that the accounting return on equity would exceed the cost of equity. The one circumstance when intangible assets can be reported on a balance sheet is where an asset is the subject of a transaction (noting that part of the purchase price would reflect the target's intangible assets), at which time a value for intangibles may give rise to a “goodwill” asset.

<sup>10</sup> One reason as to why the World Bank figure may be higher than ours is because (we assume) the World Bank data includes firms that have substantial activities outside of traditional banking (e.g., investment banking activities), such as the firms that are classified by Bloomberg as “diversified banks”. Appendix A of our original report shows that among the 7 non-crisis countries, the average ROE of the diversified banks was 12.6 per cent compared to 11 per cent for the 26 non-diversified banks that formed our peer comparator group.

<sup>11</sup> We found that diversified banks account for a large proportion of equity in four crisis countries: United Kingdom – 82 per cent; Germany – 66 per cent; Japan – 49 per cent; and France – 47 per cent. This comparison is based on book equity values for all listed banks in crisis countries averaged over the assessment period, which form the denominator of the ROE calculation for the World Bank data.

return and low risk (which it measured according to the variability<sup>12</sup> of returns), suggesting that this combination is evidence the returns are unreasonable.<sup>13</sup> But further analysis shows that the figure in question comprises two distinct relationships.

- a. for the countries from which we derive return observations, the return and volatility have the expected positive relationship,<sup>14</sup> and within this group the NZ banks are not an obvious outlier, and
  - b. for the crisis countries, there is an apparently counter-intuitive negative relationship between return and volatility (risk). However, this suggests that when banking crises occur, both the measured returns fall and the volatility of those returns increases,<sup>15</sup> and this effect is larger where the crisis is more significant.
13. This difference in the relationship between returns and return volatility between the crisis and non-crisis countries provides a further reason as to why observations about profitability should not be taken from the crisis countries.

## 1.3 Issue 2: Deriving an appropriate profitability benchmark

### 1.3.1 Source of profitability observations

14. The Commission has obtained its profitability observations from a public World Bank database, which contains aggregated information by country for various items, including the return on equity. In our earlier report, we noted that there are substantial shortcomings with using the World Bank data base for assessing relative returns, which include that:
- a. there is no visibility as to which firms are included in the World Bank database, nor of the weight that is attached to each firm, which makes it impossible to assess their relevance to the circumstances of the NZ banks, and
  - b. the World Bank database is incomplete, and does not include information on leverage or the level of “booked” intangible assets (i.e., goodwill), both of which are required to create robust profitability benchmarks.
15. In contrast, we applied the Commission's standard method for deriving profitability benchmarks, which is to derive a sample of comparable firms from those that are listed on share markets and to source the relevant financial information from Bloomberg. Applying this method means that the comparability of the peer firms can be assessed, and information is available on all required variables. The Commission has not provided a

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<sup>12</sup> The standard deviation was used.

<sup>13</sup> The analysis in question centres around Figure C4.

<sup>14</sup> We observe in the body of the report that the *variability* of returns is a poor measure of the risk that is important for the cost of capital – what matters instead is the *co-variability* of returns with a diversified portfolio of assets.

<sup>15</sup> The volatility of returns is measured as the square root of the average of the square of the differences between the annual return and the average annual return. Thus, a large one-off change to profit in either direction will cause a material increase in the measured volatility.

convincing reason to apply a different approach to the banking sector, and in our view this different approach is an error.

### 1.3.2 Adjustments for differences in government interest rates

16. The Commission accepts that government interest rates<sup>16</sup> in NZ have been higher than in the countries from which profitability observations have been obtained, and further that this should also imply that higher returns are required in NZ. However, the Commission opts not to make any adjustment to its benchmark return on equity on the basis that:
  - a. the gap between the NZ and overseas government interest rates have been declining in recent years, but
  - b. the gap between the return on equity of NZ banks and that of the return benchmark drawn from overseas firms has not.
17. In our view, there is no logic to the Commission's reasons for not making the adjustment. As the Commission accepts,<sup>17</sup> competition is a long run process, and so an analysis of profitability is required over an extended period before any valid inference may be drawn about the state of competition.<sup>18</sup>

### 1.3.3 Adjustments for leverage

18. The Commission also accepted that differences in leverage (or, equivalently, the equity ratio) would also affect the reasonable return for a NZ bank, because higher financial leverage raises risk. However, the Commission concluded that the leverage of the NZ banking sector is very similar to the average, and so no adjustment applies.
19. We note that the Commission's conclusion in this regard is a function of including the "crisis countries" in its calculation of the average level of leverage. The average level of leverage in the "crisis countries" is much higher (meaning the equity ratio is much lower) than the firms from the countries that we consider should be included. Thus, if the Commission were to accept that the countries from which profitability observations are drawn should be narrowed, then it should also accept that the leverage adjustment should be made.

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<sup>16</sup> By government interest rates, we mean the yield on long-dated government securities, such as 10 year bonds. The interest rates on these instruments are commonly used as the "risk free" component when undertaking a bottom-up estimate of the cost of capital (the cost of capital being calculated as the sum of the risk free rate of return and a risk premium).

<sup>17</sup> Commerce Commission, (21 March, 2024), *Personal banking services market study, Draft report*, para C8.

<sup>18</sup> Moreover, this is also a matter where the Commission's analysis seemed to be affected by the inclusion of observations from the crisis countries. Once these countries are removed, the gap between NZ returns and the overseas benchmark has narrowed over recent years as the gap between NZ and overseas government interest rates has narrowed.

### 1.3.4 Adjustments for intangible assets

20. The Commission's draft report ignores the substantial discussion in our previous report of the importance of intangible assets to the modern banking sector, and the difficulties for the measurement and benchmarking of profit that result from the fact that these "assets" cannot be included on a firm's balance sheet under existing accounting rules. The only reference the Commission makes to this issue is to "goodwill", which is the exception – goodwill may arise as an asset on a firm's balance sheet where a firm (including its intangible assets) is the subject of a transaction. We reiterate that there is a large financial economics literature around the importance of intangible assets, which includes the banking-specific views of researchers at the Bank for International Settlements, who state that "price-to-book ratios (PBRs) above one – which have tended to prevail under normal conditions – will tend to be driven by the market value of intangible assets and liabilities." Similarly, the RBA's Norman (2017) concluded that a valid comparison of ROE requires differences in the goodwill to be taken account of, which supports the approach adopted in our previous report.
21. We observe that there are three implications for the benchmarking of the profitability of the NZ banks that flow from the existence and importance of intangible assets.
  - a. first, the Commission should be unsurprised that price-to-book ratios of firms tend to be an increment above 1, as this is likely to reflect the fact that the denominator (the "book") excludes valuable economic assets. Similarly, the Commission should be unsurprised by the return on equity of firms exceeding bottom-up estimates of the cost of capital by an increment. This is also the result in valuable economic assets being excluded from the denominator.
  - b. secondly, where profitability is compared across countries, intangible assets must be treated in a consistent manner in order to provide a robust comparison. In our previous report we achieved this by adjusting the goodwill of all firms in our sample to have a comparable level of goodwill to ANZ (which meant adjusting some firms' goodwill up and other firms' goodwill down). Since the World Bank excludes information on goodwill, this is not an adjustment the Commission was able to do.
  - c. thirdly, a corollary of the first of the points above is that, where a return on equity is compared to a bottom-up estimate of the cost of equity, then an allowance needs to be made in the measured return for the contribution of intangible assets. We did this (in a conservative manner) in our earlier report by retaining the value of goodwill on ANZ's balance sheet when measuring its return on equity. We return to this issue in section 1.4.

### 1.3.5 Relative risk of NZ banks

22. The Commission concluded that the NZ banks are likely to be less risky than the peer firms on the basis that non-interest income to the NZ banks is much less significant than it is for banks overseas.

23. In our view, it is not possible to simply assume that the degree of non-interest income is a proxy for relative risk, as the critical issue is the nature of the activities that earn that non-interest income. A number of scenarios are possible:
- a. the non-interest income may come from investment banking activities and so be higher risk than traditional banking activities. Alternatively, the non-interest income may come from investment banking, but from activities overseas, which may be lower risk (i.e., have a weaker relationship to domestic business cycles). In any event, we do not think this effect is likely to be significant in our profitability benchmarking because we have narrowed our set of firms to only include those whose principal activities are traditional banking
  - b. the non-interest income may come from traditional banking activities, and so be a substitute for interest. While this would change the proportion of non-interest income to interest income, we do not think this would alter the risk of the activities, and<sup>19</sup>
  - c. the non-interest income may come from wealth management activities, some of which comprises an ongoing fee for services. This activity may have a lower risk than traditional banking.
24. We tested empirically whether there was a link between the degree of non-interest income in our sample and the risk of the firms (as measured by our estimate of the asset beta for the firms in question). We did not discern any meaningful empirical relationship between non-interest income and risk, which we think is an appropriate assumption.

#### **1.4 Issue 3: Bottom-up estimate of the cost of capital is informative**

25. Finally, we note that for the current market study the Commission has elected not to undertake a “bottom-up” estimate of the cost of capital for NZ banks, an approach that is inconsistent with its previous market studies. Whilst our previous report recommended that caution be applied to such an analysis, it provides an additional relevant perspective.
26. Importantly, in the current matter, we find that a comparison against bottom-up estimates of the cost of equity for the NZ banks would have demonstrated that
- a. the Commission's profitability benchmarks were not appropriate, and
  - b. if the analysis is undertaken correctly (including that proper allowance is made for intangible assets) the average returns of the NZ banks over the assessment period has been within the range of normal returns.

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<sup>19</sup> In addition, New Zealand's Credits Contracts and Consumer Finance Act 2003 (CCCFA) effectively works to ensure that most fees go into interest rates. Profit is only able to be earned through interest. In practice, transaction fees have also been removed from deposit accounts.

## 2. Issue 1: Exclusion of banks from “crisis countries”

27. In this section we respond to the Commission's draft report's rejection of our exclusion of crisis countries when determining the comparator sample of banks against which the profitability performance of NZ banks is to be assessed.

### 2.1 The Commission's draft report misunderstands our position

#### 2.1.1 What the Commission's draft report says

28. The Commission has misunderstood why we excluded countries where there had been a continuing banking crisis. It commented as follows:

*C86 The existence of a recent banking crisis does not on its own indicate that a particular banking sector was inherently more risky than New Zealand. Even if conclusions on relative risk could be drawn from the presence of recent banking crisis, this would imply that these other economies had higher risk banking sectors, and we would expect to observe higher long run returns in these countries than in New Zealand.*

...

*C89 Both of Incenta's proposed sampling constraints [including excluding  $P/B < 1$  addressed below] therefore exclude from the comparator set banks which have experienced low profitability leaving only the most profitable comparators in the sample. These constraints are proposed without a genuine justification that the risk profile of the banking sector differed from that of New Zealand. It is inappropriate to remove from the comparator set countries and banks which have experienced recent banking crises or that have a price-to-book ratio below unity.*

29. The Commission's draft report asserts that we did the following (para.C85):

*Incenta additionally submit that our sample should exclude banks where the price-to-book ratio is below unity over the assessment period.*

30. It summarised its disagreement as follows (para.C13):

*We disagree with certain aspects of Incenta's comparator bank approach. For example, we disagree with the exclusion of comparator banks from countries that have recently experienced a banking crisis or that have a price-to-book ratio greater than one, and we do not consider the inclusion of goodwill to be appropriate in this context. [emphasis added]*

31. As explained further below, these impressions that the Commission formed about our previous report and our country selection criteria are not correct.

## 2.1.2 Our country selection criterion did not reference risk or the Price / Book ratio

32. We did not exclude individual banks with a price-to-book ratio of less than one.<sup>20</sup>
33. We did not exclude countries that had suffered banking crises on the basis that there was a difference in the inherent risk of banking activities in those countries. We addressed the central issue that underlies the Commission's purpose – which is to observe the profitability of a group of peer banks in order to determine what may be a reasonable 'normal' return in New Zealand. To achieve that purpose, in our view it is not sensible to include in that peer group observations drawn from countries where the whole banking sector has suffered from poor financial performance (most importantly earning a return on equity below the cost of capital) over an extended period.
34. Our reason for excluding certain countries from the comparator sample was because:
- a. in addition to the GFC, which was felt throughout the world, the countries that we excluded had experienced additional, deep banking crises, for example Japan experienced a housing bubble and banking crisis in the 1990s while European Union (EU) banks were affected by two banking crises in close succession (the GFC in 2008-09 and the EuroZone Crisis of 2010-late 2010s)
  - b. these same countries have also suffered from sustained, poor macro-economic performance, which has been exacerbated by relatively poor underlying demographic trends, and
  - c. as a result, the return on equity earned by banks in these countries has been trapped below the cost of equity, and so these observations do not provide a reliable indication of the return on equity that would be expected in a long run competitive equilibrium by NZ banks.
35. After selecting our peer sample of countries, we then derived a sample of comparable firms within those countries (our focus was on individual banks whose principal activities comprise traditional banking, and so we excluded those that Bloomberg defines as "diversified banks"). We then compared the market-average price to book ratios for banks in the countries that we considered relevant with the outcomes for banks (selected using the same criteria) in the crisis countries. We did this to illustrate that there was a material difference in the aggregated, average financial outcomes between the banking sectors in the countries. We never applied price to book ratios as an exclusion criterion, and certainly never to individual banks. We stated that:<sup>21</sup>

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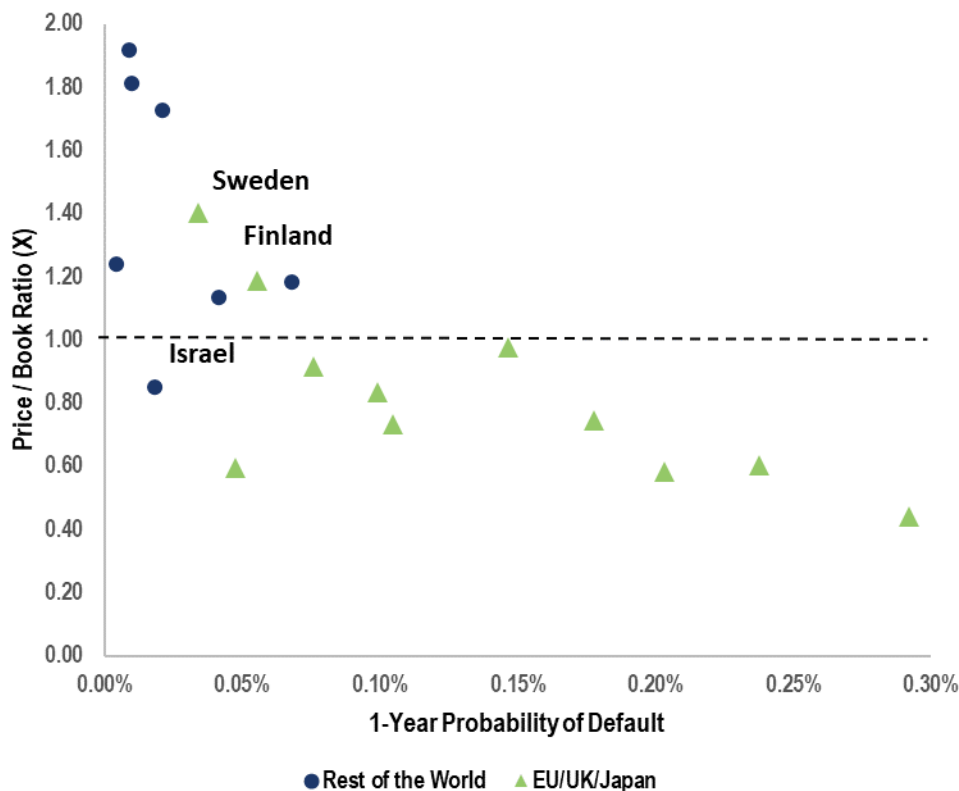
<sup>20</sup> Three banks in our 26 bank "peer group" had average Price / Book ratios below unity for the assessment period: Bank Leumi Le-Israel (Israel) and Bank Hapolin (Israel), and Regions Financial Corp (US). An additional four banks among the US firms in our "peer group" had Price / Book ratios below 1 at some point prior to 2020: Huntington Bankshares Inc, Comerica Inc, Zions Bancorp NA and First horizon Corp. Owing to the Covid-19 epidemic, during 2020 14 out of the 26 "peer group" banks had a Price / Book ratio less than unity.

<sup>21</sup> Incenta Economic Consulting (September, 2023), para 50.

*In our view, regions and countries where the Price / Book ratio is below unity and/or the Probability of Default of banks on average exceeds approximately 0.10 are not appropriate comparators for New Zealand banks.*

36. Our inclusion of banks with a Price/Book ratio below unity as illustrated in Figure 1 in our report that is reproduced below (as Figure 1 in this report).

**Figure 1: Price / Book vs Probability of Default**



Source: Bloomberg and Incenta (September, 2023), p.16.

37. We observe that the Price / Book ratios of banks in Israel were on average below unity, but were included in our sample as they met our criteria for inclusion (i.e., not a member of the EU, and has appropriate macro-economic / demographic factors). Similarly, while the average Price / Book ratio of banks in Sweden and Finland were above unity, they were not included because they are members of the EU. We made it clear that Price / Book ratio was not our selection criterion when in paragraph 49 of our previous report we clarified that:

*We left the Israel, Sweden and Finland banks within their regional assignments in order to maintain our original geographical allocations based on an **a priori** analysis of regional characteristics.*

38. The Commission’s draft report does not reference Appendix D in our previous report, which is titled “Demographics, economic growth and banking”. There we provided



population and macro-economic data and references from the literature that support the country / region selections we made based on the existence of long term banking crises. We explained that while the whole world's banking systems suffered in some degree from the GFC:

- a. Japan has been in a long term banking crisis since the early 1990s resulting from declining population, an increasing population aged over 65 and the bursting of a housing bubble that was followed by deflation, and
- b. the European Union's EuroZone Sovereign Debt Crisis was exacerbated by weak demographics and macro-economic characteristics, which was recognised in a speech by the RBNZ's former governor Alan Bollard who pointed to such indicators as "aging populations", low growth in "real GDP per capita", and "the threat of deflation".<sup>22</sup>

39. Table 1 displays World Bank data relating to the issues raised by RBNZ's former governor Alan Bollard for the sample of countries chosen by the Commission. We rank countries in each of five columns based on relative demographics (percentage of population over 65 years of age, and population growth), and macro-economics (percentage growth in GDP per capita, and average inflation rate) over the Commission's assessment period (2010 to 2021). Table 1 shows that compared with the sample of countries we identified as not being subject to a long-term banking crises (dark blue), the additional countries that formed the comparator sample relied on by the Commission had:

- a. a higher proportion of the population aged 65 and over (17.8 per cent in the UK up to 27.1 per cent for Japan)
- b. lower population growth (with some overlap: Switzerland and Sweden having slightly higher population growth than the US and Hong Kong having relatively low population growth)<sup>23</sup>
- c. generally lower GDP per capita growth (with some overlap between Sweden / Switzerland, and Canada / Norway)
- d. generally lower inflation (except for overlaps of UK / Austria and Singapore / Israel), and
- e. lower sovereign bond yields (and in a number of cases zero or negative).

40. On the other hand, with the exception of CPI, New Zealand was firmly within the range of values observed for the group of countries we identified as not being subject to a long-term banking crisis. In the case of every demographic / macro-economic indicator,

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<sup>22</sup> Bollard, Alan and Tim Ng, (9 August, 2012), *Learnings from the Global Financial Crisis*, A speech delivered to Australian National University in Canberra, pp.9-11.

<sup>23</sup> While Switzerland is not formally a member of the EU it is deeply associated with the EU through bilateral treaties and its banking system is highly integrated with those of a number of leading countries in the EU. In any case, this exclusion did not affect our results since no listed banks in Switzerland met our inclusion criteria at the bank level.

the average for our sample of non-crisis countries was closer to New Zealand's average than those in the excluded (long-run crisis) countries, and the comparator sample that was used by the Commission.

**Table 1: NZ demographic and macro-economic vs Incenta's and the Commission's sample countries, 2010-2021**

Country Name	Popn>65	Country Name	Pop growth	Country Name	GDP/cap g.	Country Name	CPI	Country Name	Bond yield
Singapore	9.9%	Israel	1.9%	Singapore	6.4%	Hong Kong SAR,	2.9%	New Zealand	2.7%
Israel	11.0%	New Zealand	1.4%	Israel	5.4%	Norway	2.2%	Australia	2.4%
New Zealand	14.5%	Australia	1.4%	New Zealand	5.3%	Australia	2.1%	Israel	2.0%
United States	14.7%	Canada	1.1%	Hong Kong SAR,	4.2%	United Kingdom	2.0%	Norway	1.7%
Australia	15.0%	Switzerland	1.0%	Australia	3.6%	United States	2.0%	Singapore	1.5%
Hong Kong SAR, C	16.0%	Sweden	0.9%	United States	3.4%	Austria	1.9%	United States	1.5%
Canada	16.2%	Norway	0.9%	Sweden	2.6%	Canada	1.8%	Canada	1.3%
Norway	16.5%	Singapore	0.7%	Canada	2.5%	New Zealand	1.8%	Hong Kong SAR	1.2%
United Kingdom	17.8%	United States	0.7%	Switzerland	2.4%	Belgium	1.8%	United Kingdom	0.9%
Switzerland	17.9%	United Kingdom	0.6%	Norway	2.2%	Netherlands	1.7%	Austria	0.8%
Netherlands	17.9%	Austria	0.6%	Germany	2.0%	Singapore	1.6%	Sweden	0.8%
Belgium	18.3%	Belgium	0.6%	United Kingdom	1.8%	Germany	1.4%	Italy	0.8%
Austria	18.5%	Hong Kong SAR,	0.5%	Denmark	1.7%	Finland	1.3%	Finland	0.6%
Denmark	18.7%	Netherlands	0.5%	Belgium	1.5%	Denmark	1.2%	Portugal	0.6%
France	19.2%	Denmark	0.5%	Finland	1.2%	Sweden	1.2%	Denmark	0.5%
Sweden	19.5%	France	0.4%	Netherlands	1.2%	Italy	1.1%	Netherlands	0.1%
Finland	20.3%	Finland	0.3%	Austria	1.1%	France	1.1%	Belgium	0.0%
Portugal	20.7%	Germany	0.1%	Portugal	0.8%	Portugal	1.1%	France	0.0%
Germany	21.1%	Italy	0.0%	France	0.6%	Israel	1.0%	Japan	0.0%
Italy	22.1%	Japan	-0.2%	Italy	0.1%	Japan	0.4%	Switzerland	-0.2%
Japan	27.1%	Portugal	-0.2%	Japan	0.1%	Switzerland	0.0%	Germany	-0.2%
Ave. Incenta	14.2%		1.0%		3.9%		1.9%		1.7%
Ave. New Zealand	14.5%		1.4%		5.3%		1.8%		2.7%
Ave. JPN/UK/EU	19.9%		0.4%		1.3%		1.2%		0.4%
Average NZCC	17.9%		0.6%		2.2%		1.5%		0.8%

Source: World Bank data base, Bloomberg and Incenta analysis. Note: Blue shading denotes Incenta's non-crisis sample of 7 countries, while green shading denotes the Commission's additional 13 countries, which we consider crisis countries.

## 2.2 Banks in long-running “crisis countries” have been earning less than their cost of capital

41. A 2017 research paper by David Norman from the RBA's Financial Stability Department,<sup>24</sup> and more recently in McKinsey's *The Global Banking Annual Review 2023*<sup>25</sup> observe that situations where banks have been earning a Return on Equity (ROE) that is less than their Cost of Equity (COE) for an extended period are prevalent in several countries and regions around the world.

### *Norman (RBA, 2017)*

42. Norman's study found that since the GFC there had been widespread falls in the Price / Book (or PB) ratios of banks around the world, with those in the Euro area, the UK and Japan falling below unity, while ratios for banks in the US, Canada and Australia had

<sup>24</sup> David Norman, (March Quarter, 2017), *Bulletin*, Reserve Bank of Australia, pp.51-58.

<sup>25</sup> McKinsey & Company (October, 2023), *The Great Banking Transition*, The Global Banking Annual Review 2023.

remained above unity. Describing the Price / Book ratio as “a signal of banks’ health” Norman’s article “lays out a framework for how to interpret developments in PB ratios” which “shows that changes in PB ratios are driven by shifts in either returns on equity (ROE) or the cost of equity (COE), or both.”<sup>26</sup> In addition, he discusses “how both ROE and PB ratios can be influenced by the accounting treatment of goodwill, which supports using caution when drawing conclusions from differences in PB ratios across banks and over time.”<sup>27</sup>

43. Norman noted that as at 2017, “PB (Price / Book) ratios for many global banks nevertheless remain low, reflecting concerns over the future value of their assets and profitability.” These are the banks in regions that the Commission considers appropriate benchmarks for a study of the profitability performance of NZ banks.

### ***McKinsey's The Global Banking Annual Review 2023***

44. The McKinsey report, which defines banks as “including all financial institutions except insurance companies,” observes in multiple instances that many banks around the world have been struggling “to generate their cost of capital.” For example:

*Page 4: This measure [Price / Book ratio] has remained flat since the 2008 financial crisis and stands at a historic gap to the rest of the economy – a reflection that **capital markets expect the return on equity to remain below the cost of equity.***

*Page 12: At 0.9 in 2022, [the Price / Book ratio] has remained largely flat since the 2008 financial crisis. Banking is the sector with the lowest market valuation, suggesting that **capital markets expect that ROE over time will remain below the cost of equity.***

45. In Figure 2 below we illustrate the relationship between the ROE and our estimate of the COE over the Commission’s assessment period (2010-2021) in selected countries.<sup>28</sup> The method and assumptions that we have applied are as follows:
- we have applied the classical Capital Asset Pricing Model (CAPM) model to estimate the cost of equity on an annual basis for each country / market
  - the risk free rate of return has been estimated as the average of 5 and 10 year sovereign bond yields over the analysis period
  - the equity beta has been estimated as the average of weekly and monthly frequency returns for two 5-year periods (2011-2016 and 2016-2021) on a country-by-country basis, and

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<sup>26</sup> David Norman, (March Quarter, 2017), p.51.

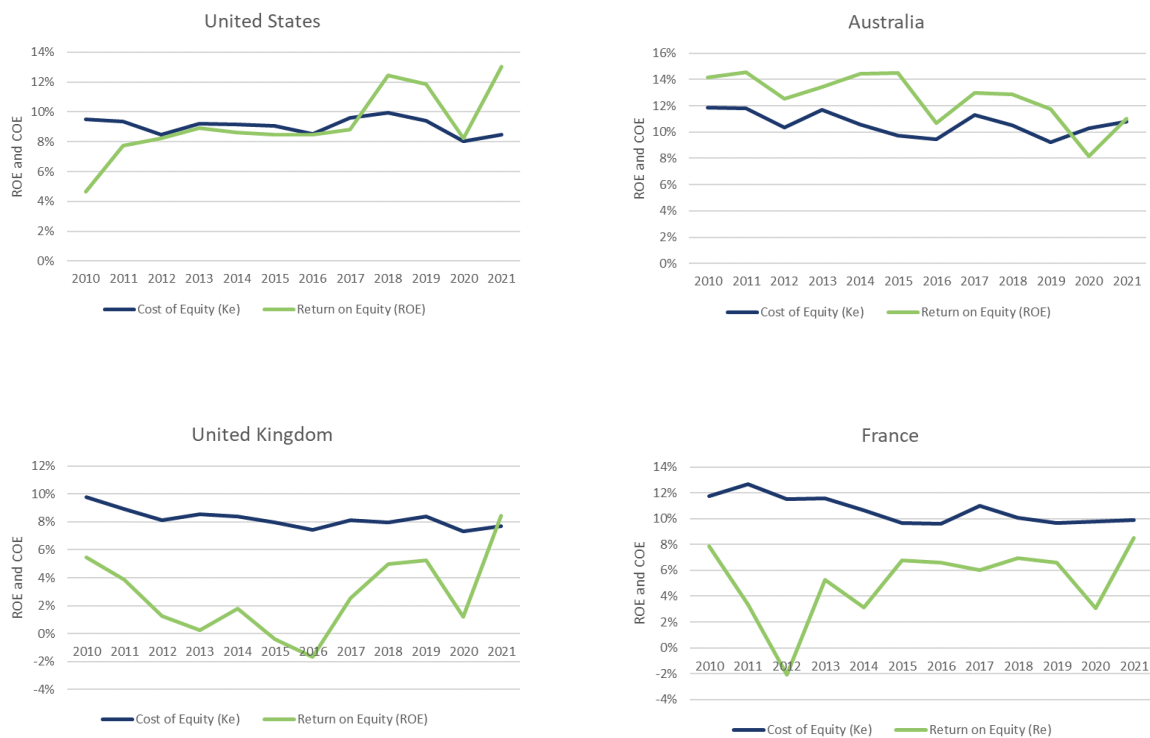
<sup>27</sup> David Norman, (March Quarter, 2017), pp.51-52. Norman’s observations about the accounting treatment of goodwill is considered further below in connection with the influence of intangible assets.

<sup>28</sup> ROE is the average of all banks, diversified and non-diversified, in each country.

d. the market risk premium for each year that was reported as the average for each country in the Fernandez *et al* annual survey.<sup>29</sup>

46. The sample of firms for each country comprise both those that the Bloomberg database classifies as non-diversified (i.e., principally traditional banking) and diversified. We have included both classes of banks in order to maintain consistency with the World Bank database, and to enable a larger sample in each country.

Figure 2: Return on Equity vs Cost of Equity, 2010-2021



Source: Bloomberg, Fernandez *et al* (various issues) and Incenta analysis

47. In the United States and Australia, which our previous report identified as non-crisis (“Rest of the World” or “RoW”) countries, we find that ROE was close to or above COE. In contrast, for both the United Kingdom and France, which we classified as crisis countries owing to membership of the EU,<sup>30</sup> we observe the ROEs are almost uniformly less than the COEs. The fact that in these crisis countries the banking sector as a whole could not earn its cost of capital means that banks in these countries should not be used as comparators for NZ banks.

<sup>29</sup> See Pablo Fernandez, Sophia Banuls and Pablo F. Acin, (7 June, 2021), *Survey: Market Risk Premium and Risk-Free Rate used for 88 countries in 2021*, IESE Business School, and previous issues. The Fernandez survey (which is conducted annually) is one of the sources the Commission applies when estimating the market risk premium in NZ and in other countries.

<sup>30</sup> Whilst the UK left the EU in 2016, it nonetheless remained substantially exposed to the EU for the remainder of the analysis period.

## 2.3 The Commission's draft report does not justify the sample of countries that it has used

48. Neither the Commission's preliminary issues paper nor its draft report provide any substantive guidance on what caused it to adopt the 21 country comparator sample (20 countries excluding New Zealand) that it has used. The only reason the Commission provides for its choice of countries is as follows:

*C27 The countries included in our analysis are summarised in Table C1. We have mirrored the sample of peer nations used by the Reserve Bank in their March 2023 Financial Stability Report.<sup>31</sup>*

49. However, in our view, it is insufficient for the Commission simply to refer to the RBNZ's approach. The Commission has not supported its profitability benchmarking as appropriate for the purpose to which it is being applied.

## 2.4 The Commission's key conclusions are tainted by the presence of "crisis countries"

50. Almost all of the Commission's key conclusions are tainted by including the crisis countries in its sample. Some examples are provided below.

### *Comparison with Return on Equity benchmarks*

51. The Commission's Figure 6.1 shows NZ banks' post-tax ROE based on aggregated World Bank data lie above the Upper Quartile of the Commission's comparator sample of 21 countries. However, this is the direct result of its inclusion of countries (i.e., UK / EU / Japan) where the banking sector has been subject to a prolonged crisis.
52. When we exclude these countries, we find that the average returns of the NZ banks were below the average of the interquartile range of the overseas banking sectors, and fluctuated above and below the third quartile on a year by year basis (although we think this comparison would still contain errors, which is the topic of Section 3).

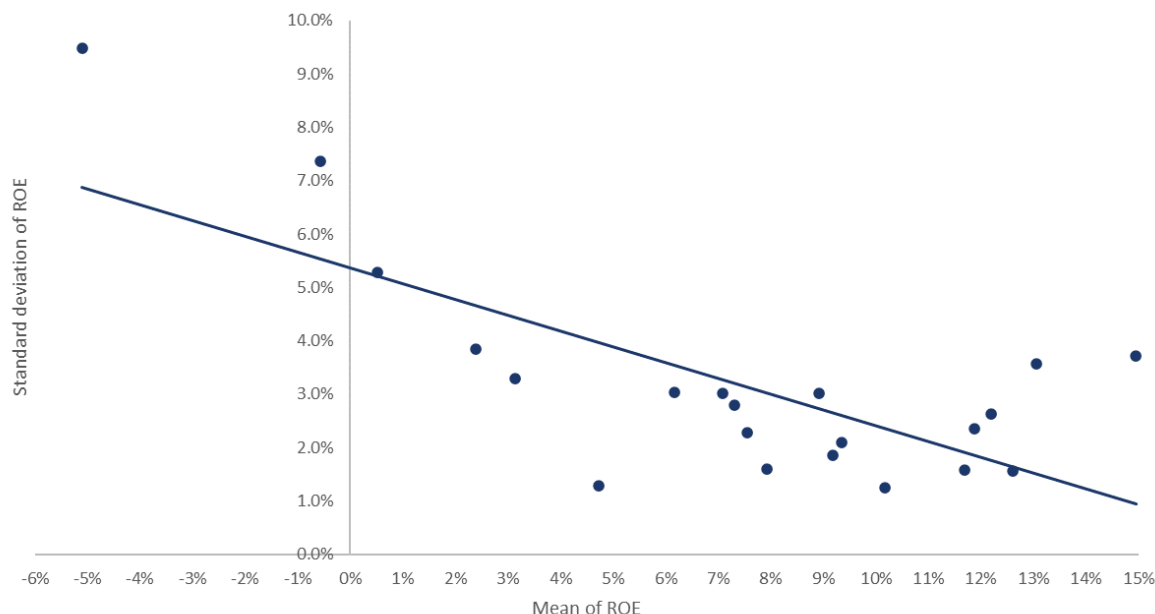
### *Relationship between risk and return*

53. One of the Commission's key findings is that the returns of the NZ banks are simultaneously *less variable* (which the Commission uses as a proxy for risk) and *higher* than banking sectors overseas. This is the Commission's Figure C4, which is an adaptation of the RBNZ's Table 2.12 (although the latter relates to pre-tax return on equity and covers a longer period, 2000-2021).<sup>32</sup> The Commission does not explain why the overall trend in Figure C4, which we reproduce as Figure 3 below (with the insertion of a trend line), is for returns to rise as the Commission's proxy for risk (standard deviation) falls, which is counter-intuitive.

<sup>31</sup> Reserve Bank (3 May, 2023), *Financial stability report*, at Figure 2.12.

<sup>32</sup> Reserve Bank (3 May, 2023), p.24.

Figure 3: Mean and standard deviation of post-tax ROE across the Commission’s comparator countries, 2010-2021

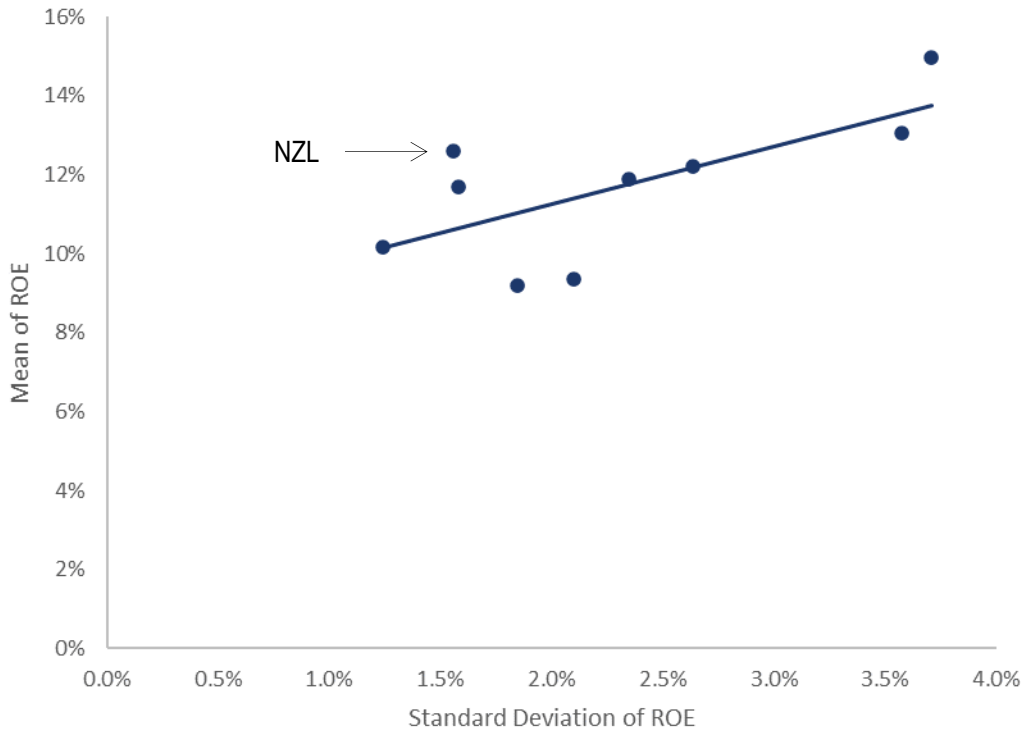


Source: Commerce Commission’s Figure C4, World Bank data base

54. In our view the counter-intuitive element in Figure 3 comes from the banks in crisis countries. This is because pronounced negative shocks will both reduce returns to below the cost of capital, and raise the variability of returns. If the focus is just on the countries that we have identified as not being subject to a long-term banking crisis (i.e., not the UK, EU or Japan), as in Figure 4 below, there is a positive correlation between returns and the Commission’s proxy for risk,<sup>33</sup> and the returns of NZ banks appear to be in the middle of the pack albeit with a relatively lower standard deviation (but that is subject to the caveat discussed below that the Commission’s proxy for risk is poor).
55. In connection with the Commission’s Figure C4 (our Figure 4 above) we also note that, in finance theory, the risk for which investors require a return depends on the *covariance* of returns to a particular asset with the market overall, rather than the variability of returns. Thus, no valid inference can be drawn from a comparison of the variability of returns to the NZ banks with those of banking sectors overseas.

<sup>33</sup> For our “non-crisis countries” comparator group, the positive relationship between ROE and the standard deviation of ROE is statistically significant with 95 per cent confidence.

Figure 4: Mean and standard deviation of post-tax ROE across Incenta's comparator countries, 2010-2021



Source: World Bank data base, Incenta analysis

### **3. Issue 2: Deriving an appropriate profitability benchmark**

#### **3.1 Source of profitability observations**

##### **3.1.1 The World Bank database**

56. The Commission has obtained its profitability observations from a public World Bank database, which contains aggregated information by country for a number of variables, including the return on equity. In our previous report we noted that the World Bank database suffers from a number of shortcomings, including that:<sup>34</sup>
- a. there is no transparency as to which firms are included, nor of the weighting scheme that has been applied to each firm, which makes it impossible to assess the relevance of a given country's observation to the circumstances of the NZ banks, and
  - b. it is incomplete since it does not include information on leverage or the level of "booked" intangible assets (i.e., goodwill), which are critical to the creation of a robust profitability benchmark.
57. In contrast, we applied the Commission's standard method for deriving profitability benchmarks, which derives a sample of comparable businesses from firms listed on share markets, with relevant financial data being sourced from Bloomberg. Using that method allows the comparability of peer firms to be assessed, since data is available on all required variables. The Commission has not provided a convincing reason why on this occasion it has applied a different approach to the banking sector. In our view the different approach the Commission has taken is an error.

##### **3.1.2 The Commission did not investigate the relative merits of alternative data sources**

58. Apart from difficulties regarding the inclusion of countries experiencing an ongoing banking crisis, which we discussed in section 2 above, the Commission's use of aggregated World Bank data imposes limitations on the type of analysis the Commission has attempted in this case.
59. According to the Commission:

*C25: The key benefits of the World Bank's data are the comprehensive list of countries data is available for, the wide range of variables included, and the fact that the data covers a longer period than the Reserve Bank's data.*

*C26: The key limitation of the World Bank data relates to its aggregate nature. It is not clear which banks are included for each country and it is not possible to disaggregate the data to construct a sample at the bank level.*

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<sup>34</sup> Incenta Economic Consulting (September, 2023), paras. 26-28.



60. However, the Commission has in all like matters in the past used the Bloomberg database to derive benchmarks of financial performance. More specifically, the Commission has eschewed “off the shelf” estimates of industry-wide variables (e.g., on margins, rates of return or betas). Instead, it has established its own set of firms whose activities were considered to be sufficiently comparable to the target activities of the relevant matters, and it has then estimated its own measures of financial performance, applying formulae that are considered appropriate for the variable in question and the context in which that variable is being used. More generally, we observe that the Bloomberg database – like the World Bank database – also provides a large range of variables over the same period the Commission has looked at (2010-2021) for the countries the Commission has considered; however, the Bloomberg database has the benefit of providing firm-level data. Thus, the Bloomberg database addresses directly the shortcomings the Commission identified with the World Bank data.
61. The Commission's only criticisms of using a sample of individual banks – as we have done – relate to the exclusion criteria that we applied, which as discussed in section 2 above, were misunderstood by the Commission.

### **3.2 Adjustments for differences in government interest rates**

62. The Commission's draft report accepts that NZ banks will require a higher return if NZ risk free rates are higher than peer countries, and also accepts that NZ interest rates were markedly higher during its assessment period. However, it dismisses this issue on the basis that:
- a. the gap between NZ interest rates and the rest of the world has narrowed in recent years, but
  - b. the gap between NZ banks returns and banks in the rest of the world has not narrowed, and so:
  - c. it is therefore not obvious that there is a clear link between the risk free rate and bank returns (para.C58):

*However, the magnitude of this effect is not clear. Figure C5 shows, that in recent years New Zealand's risk-free rate has aligned more closely with other countries in our peer sample. However, we have not observed a corresponding decline in banking sector ROE in New Zealand over the same period relative to countries in our sample (as shown in Figure 6.1). It is therefore not obvious that there is a clear link between the risk-free rate and bank returns.*

63. That is, because the returns to NZ banks did not follow the interest rate differential 1-for-1, the Commission believes this is a factor it can ignore. However, the proposition that the NZ banks' returns should follow interest rates 1-for-1 is inconsistent with the Commission's earlier statement in its draft report (and all of competition economics) that competition is a long term process, and that the Commission would therefore focus on average outcomes over an extended period:

*C8 Competition is a long run process, and profits can vary through the business cycle, so we have considered average profitability ratios over the longest reasonable periods available in our datasets.*

64. Moreover, having reviewed the Commission's analysis (as presented in its Figure 6.1), we find that:
- a. the Commission's factual finding does not seem to be correct – the ROE differential between the NZ banks and the Commission's benchmarks did appear to narrow over the analysis period, and
  - b. if attention is limited to the non-crisis countries (as we think is appropriate), this narrowing of the ROE differential between the NZ banks and the overseas banking sectors over the period is also apparent.

### 3.3 Adjustments for leverage

65. In our previous report, we noted that standard finance theory predicts that the cost of equity / return on equity depend on (i.e., increase with) the level of financial leverage. Thus, other things being equal, because NZ banks have a lower equity ratio (higher leverage) than the average of their peer group (e.g., approximately 8.7 per cent for ANZ vs 9.5 per cent for non-diversified banks in non-crisis countries), they should be expected to have higher ROEs.<sup>35</sup>
66. The Commission agreed that leverage can influence the required rate of return. However, at paragraph C41 it concluded “there is little evidence that New Zealand banks are particularly more leveraged than peers,” and considers this sufficient evidence to disregard making any adjustment to its benchmark returns for relative leverage.
67. The draft report's conclusion that NZ banks are “middle of the road” with respect to leverage is wholly driven by the Commission including in its sample the 17 principally traditional banks from the crisis countries (Japan and the EU). These banks are more highly leveraged, and so this raises the average leverage level (i.e., reduces the average equity ratio). This is another difference between our peer countries and banks from the crisis countries. However, we observe that there is no way for the Commission to confirm that its leverage values are consistent with the World Bank data in any event – as discussed earlier, the World Bank database does not include information on leverage, and so the Commission sourced its leverage information from our previous report, which was based on Bloomberg data.<sup>36</sup>
68. While the Commission drew on some of the Bloomberg-sourced data in Appendix A of our previous report, it chose not to investigate whether in the sample of peer banks we

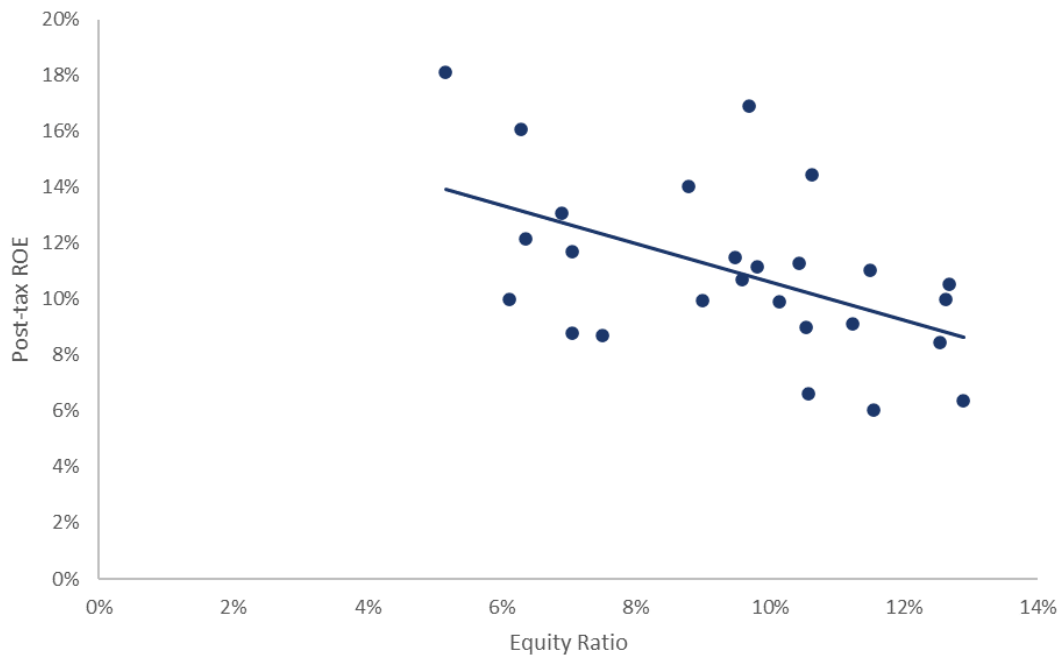
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<sup>35</sup> The equity ratio of the “peer group” companies increased (leverage reduced) in our previous report from 9.5 per cent to 10.3 per cent once the peer group's equity value was adjusted to include a comparable amount of booked intangibles (goodwill) to ANZ. See Table 4 in our original report.

<sup>36</sup> In addition we note that the average for leverage that the Commission calculated based on Bloomberg data that we assembled did not cover banks from “crisis countries” and was a simple average when we expect that the World Bank database is a weighted average. Hence, the comparison made by the Commission is flawed on several levels.

identified (i.e., non-diversified banks operating in non-crisis countries), there was a relationship between ROE and leverage (equity ratio). We have done this and present the results in Figure 5 below.

**Figure 5: Relationship between ROE and leverage (equity ratio), 2010-2021 for non-diversified banks in non-crisis countries**



Source: Bloomberg and Incenta analysis

69. As expected, Figure 5 shows a clear relationship: ROE rises as leverage rises (equity ratio falls). Furthermore, the relationship is statistically significant with 99 per cent confidence. In our view, both theory and the empirical relationship observed above support our previous report’s adjustment to take account of the effect of leverage on ROE.

### 3.4 Adjustment for intangible assets (goodwill)

#### 3.4.1 The Commission has ignored the literature and evidence on intangible assets

70. The Commission’s draft report did not consider or respond to the extensive material that we presented in our previous report, which discussed the importance of intangible assets in the banking sector.<sup>37</sup> The Commission’s reasoning was as follows:

*C48 Incenta and Deloitte submit that intangible assets such as goodwill should be included in the assessment of profitability. Both submit that excluding intangible assets may overstate the level of profitability of a firm with significant intangible*

<sup>37</sup> Incenta (September, 2023), pp.25-26 and Appendix C.

*assets, by excluding an asset that investors purchased with the intention of yielding a future return.*

*C49 We do not consider that adjustments for goodwill should be made. This is consistent with our approach to goodwill in the market study into the retail grocery sector, where we excluded goodwill on the basis that it is not an asset employed to generate earnings, rather, it reflects future expected earnings, which may capture the expectation of excessive profits in the future. [emphasis added]*

### 3.4.2 The literature on goodwill and unbooked intangibles is highly relevant

71. When considering bank performance in terms of ROE or Price / Book ratios, it is important to understand that intangible assets are a material proportion of the assets of banks. Thus, the extent to which intangible assets are recognised in the accounts (as “goodwill”, which arises where the bank is the subject of a transaction) will have a material effect on the value of these variables (i.e., ROE and the Price / Book ratio). At a minimum it is important to adjust the measured ROE of firms for differences in the “goodwill” recorded by the entities whose relative profitability performance is being estimated.

72. The growing literature on intangibles is summarised by Eisfeldt, Kim and Papanikolaou (2021) as follows:<sup>38</sup>

*Intangible assets have become an important and fast-growing part of firms' capital stocks. Corrado, Hulten, and Sichel (2009) estimated intangibles to be about one third of the US non-residential capital stock in 2003,<sup>39</sup> while, using more recent data, Eisfeldt and Papanikolaou (2013b),<sup>40</sup> Falato, Kadyrzhanova, and Sim (2013),<sup>41</sup> Belo, Gala, Salomao, and Vitorino (2019),<sup>42</sup> and Ewens, Peters, and Wang (2020)<sup>43</sup> all estimate the contribution of intangible capital to overall corporate capital stocks to be around one half. [emphasis added]*

73. The Commission's draft report did not comment at all on unbooked intangibles. Where intangible assets show up in a firm's accounts as goodwill, they cannot simply be

<sup>38</sup> Eisfeldt, Andrea, Edward T. Kim and Dimitris Papanikolaou (29, April, 2021), “Intangible Value”, UCLA Anderson School of Management, Kellogg School of Management and NBER. To estimate the value of intangibles assets, Eisfeldt, Kim and Papanikolaou (2021, p.2) applied the same approach to measure the value of intangibles as Eisfeldt and Papanikolaou (2014).

<sup>39</sup> Corrado, Carol, Charles Hulten, and Daniel Sichel. (2009), “Intangible capital and US economic growth,” *Review of income and wealth*, Vol. 55(3), pp.661–685.

<sup>40</sup> Eisfeldt, Andrea L., and Dimitris Papanikolaou, (May, 2014), “The value and ownership of intangible capital,” *American Economic Review*, Vol.104(5), pp.189–94.

<sup>41</sup> Antonio Falato, Dalida Kadyrzhanova, and Jae Sim, (September, 2013), Rising intangible capital, shrinking debt capacity, and the US corporate savings glut. Technical report, FEDS Working Paper, No. 2013-67.

<sup>42</sup> Belo, Frederico, Vito Gala, Juliana Salomao, and Maria Ana Vitorino, (2019), “Decomposing firm value,” Technical report, National Bureau of Economic Research.

<sup>43</sup> 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](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3287437).

dismissed on the basis that they are an expected monopoly rent.<sup>44</sup> This proposition has been tested for in the financial economics literature, and rejected. The study by Ewens, Peters and Wang (2019) looked at 1,521 acquisition purchase price allocations to estimate intangible capital stocks. Seventy five per cent of allocated intangible capital stock was found to have been generated by expenditures of the target company on organisational capital. When intangibles were properly capitalised, the average Price / Book ratio observed for these acquisitions reduced from 1.74 to 1.0. That is, what was being booked as “goodwill” in the course of acquisitions was actually the purchase price of intangible assets.

74. Similarly, a Bank for International Settlements (BIS) article by Bogdanova, Fender and Takats (2018) discussed intangible assets in the banking sector, concluding that in “normal conditions” – which we would associate with the “non-crisis” countries – a Price / Book ratio above one is also normal:<sup>45</sup>

*For banks and other financial firms, therefore, combining book- and market-based valuation metrics can provide useful information. In particular, price-to-book ratios (PBRs) above one – which have tended to prevail under normal conditions – will tend to be driven by the market value of intangible assets and liabilities, which in turn may be affected by market developments and the competitive environment in ways that are not reflected in their book values. [emphasis added]*

75. In addition, Norman (2017) illustrated the potentially dramatic effect that accounting treatment of goodwill can have on ROE and Price / Book ratios by recalling the merger of Bendigo Bank and Adelaide Bank in 2008. Prior to the transaction the weighted average ROE of these banks was 20 per cent and weighted average Price / Book ratio was 2.2. As a result of booking AUD\$ 1.5 billion to the accounts due to the merger, the ROE of the combined entity halved to 10 per cent and the resulting Price / Book ratio also fell to 1.3. Norman concluded that:<sup>46</sup>

*Differences in the extent to which goodwill is recorded in book value at various banks have implications for how valid it is to compare ROE and PB ratios across banks or countries.*

76. That is, like our previous report, Norman concluded that a valid comparison of ROE should take account of differences in the goodwill recorded by the banks that are being compared. Accordingly, we adjusted the goodwill recorded in the books of our peer sample to match that of ANZ (which meant adjusting the goodwill of some banks up and the goodwill of other banks down).

<sup>44</sup> In our previous report we found that the most significant goodwill is for the US banks, which is also arguably in the most competitive banking market in the world.

<sup>45</sup> Bogdanova, Bilyana, Ingo Fender and Elod Takats (March, 2018), “The ABCs of bank PBRs”, *BIS Quarterly Review*, p.83.

<sup>46</sup> David Norman, (March Quarter, 2017), p.56. There is also a clear assumption in Norman’s discussion that banks’ balance sheets should include the value of intangible assets that have been created.

### 3.4.3 Implications of intangibles for benchmarking the profitability of NZ banks

77. The existence of material intangible assets in banking has three implications for benchmarking the profitability of the NZ banks:
- a. first, the Commission should be unsurprised that price-to-book ratios of firms tend to be an increment above 1, as this is likely to reflect the fact that the denominator (the “book”) excludes valuable economic assets. Similarly, the Commission should be unsurprised by the return on equity of firms exceeding bottom-up estimates of the cost of capital by an increment. This is also the result in valuable economic assets being excluded from the denominator<sup>47</sup>
  - b. secondly, where profitability is compared across countries, intangible assets must be treated in a consistent manner in order to provide a robust comparison. In our previous report we achieved this by adjusting the goodwill of all firms in our sample to have a comparable level of goodwill to ANZ. Since the World Bank excludes information on goodwill, this is not an adjustment the Commission was able to do, and
  - c. thirdly, a corollary of the first of the points above is that, where a return on equity is compared to a bottom-up estimate of the cost of equity, then an allowance needs to be made in the measured return for the contribution of intangible assets. We did this (in a conservative manner) in our earlier report by retaining the value of goodwill on ANZ's balance sheet when measuring its return on equity.

### 3.5 Cannot conclude that NZ banks are less risky based on the share of non-interest income

78. The Commission's draft report concludes that because New Zealand's banking activities are more “vanilla” in nature, rate of return expectations should be lower:<sup>48</sup>

*The focus of New Zealand banks on lower risk activities means we would expect the sector to deliver lower returns relative to riskier banking sectors overseas. This is because, all things being equal, a business that takes on higher risk can typically expect to earn higher profitability on average over time. The New Zealand banking sector is relatively low-risk in nature because it is more heavily weighted towards traditional (“vanilla”) banking activities than many peer nations. On average over our analysis period, New Zealand's proportion of non-interest income to total income was the lowest of our peer country sample at 22%, indicating that New Zealand's banking sector has a greater focus on traditional interest bearing banking activities.*

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<sup>47</sup> That is, omitting intangibles from the denominator for the calculated Price / Book ratio and ROE implies that the Price / Book ratio should be above unity, and the ROE should be above the COE on average by an amount that can be explained by the existence of the omitted intangible assets.

<sup>48</sup> Commerce Commission (21 March, 2024), p.135.

79. The Commission's use of the proportion of non-interest income as a measure of relative risk does not necessarily follow, however, as it will depend on the nature of the activities that generate the non-interest income.
- a. as the Commission notes, if the non-interest income is from traditional banking, then there is no real difference of risk
  - b. if the income comes from investment banking type activities, then it is likely to be more risky – but firms that do this are poor comparators, which is why we excluded “diversified” firms from our peer group, and
  - c. if the income comes from clipping the ticket on wealth management products, then it is likely to be less risky than traditional banking – this is something that many of the narrow (traditional) banks in our sample do (especially in North America).
80. The World Bank database aggregates all three of these sources, but the user does not know in what proportions they appear in the data. We tested to see whether the level of risk to which a bank is faced varies in any systematic way with the proportion of non-interest income it derives. In order to do this, we:
- a. applied the firm-specific data that is available from Bloomberg
  - b. analysed both our sample of firms, as well as the full sample (i.e., including diversified and non-diversified banks, and across all of the countries the Commission considered), and
  - c. adopted two measures as proxies for a bank's risk: (1) its level of systematic risk (asset beta), and (2) its variability in earnings (standard deviation of ROE).
81. However, we were unable to find any relationship between a bank's level of risk and its non-interest income, for both sets of firms and both measures of risk.
82. Accordingly, in our view, the appropriate assumption is that the level of non-interest income is not an indicator of a difference in risk.

#### 4. Issue 3: Bottom-up estimate of the cost of capital is informative

83. In our previous report we undertook a bottom-up cost of capital analysis using the CAPM. From this we concluded that “ANZ’s actual post tax return on equity of 12.3 per cent sits within” an expected range for the cost of equity of between “12.1 per cent to 12.8 per cent”, when applying the Commission’s preferred cost of capital methods and assumptions.<sup>49</sup> Whilst we considered that caution was required when comparing returns against a bottom-up estimate of the cost of capital, “this exercise nonetheless provides additional relevant information”.<sup>50</sup>
84. The Commission’s draft report does not comment on the method or conclusion we reached in our previous report using a bottom-up estimate of the cost of capital of ANZ. Nor does the Commission discuss why it did not consider it useful to undertake a bottom-up estimate of the cost of capital in this case when it did this in its previous market studies (noting that to do so it would have needed to determine an appropriate beta estimate, for which it would typically establish a set of comparable banking firms using Bloomberg data).
85. Importantly, in the current matter, we consider that a comparison against bottom-up estimates of the cost of equity for the NZ banks would have demonstrated that, if the analysis is undertaken correctly (including proper allowance being made for intangible assets) the average returns of the NZ banks over the assessment period has been within the range of normal returns. It would also have shown that the benchmarks for the return on equity that the Commission derived from the overseas banking sectors were likely to materially understate the cost of equity.

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<sup>49</sup> Incenta (September, 2023), para.15.

<sup>50</sup> Incenta (September, 2023), para.37.