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Grocery Market Study: Post-conference report

Woolworths New Zealand Limited

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Contents

1. Introduction

1. The purpose of this report is to:
   a. Address certain issues that arose during the Commerce Commission's Grocery Market Study Conference; and
   b. Respond to certain issues raised by submissions or expert reports filed in response to the Commission's draft Grocery Market Study report.
2. Information confidential to Woolworths New Zealand (**"WWNZ"**) is [redacted in this public version].

2. Leases

3. During the conference Commissioner Small asked questions regarding the purpose for introduction of IFRS 16[1] and the appropriate methodology for valuing a lease.[2]
4. As was discussed in response to the first question, the purpose of IFRS 16 is for accounting reports to capture the economic value and obligations of leases. For example, under the heading "Objective", clause 1 of NZ IFRS 16 states (emphasis original):[3]

   *This Standard sets out the principles for the recognition, measurement, presentation and disclosure of **leases**. The objective is to ensure that **lessees** and **lessors** provide relevant information in a manner that faithfully represents those transactions. This information gives a basis for users of financial statements to assess the effect that leases have on the financial position, financial performance and cash flows of an entity.*

5. As was also discussed in response to Commissioner Small's question, the introduction of IFRS 16 is not actually relevant to the issue of whether lease assets should be included when measuring economic profits – even if IFRS 16 did not exist, it would still be appropriate to include the value of the asset created by the lease in the denominator of the ROACE formula. A lease creates an asset that is employed by a firm to generate earnings. IFRS 16 is simply an accounting recognition of this.
6. Regarding Commissioner Small's question about valuing a lease, the value of any asset (including that created by a lease for a lessee) is the net present value of the expected future cash flows. An investor would be willing to pay up to that amount for the asset. As a stylistic example, if the net present value of expected future cash flows from an asset was $100, then an investor would be willing to pay up to $100 for that asset.
7. If a business takes on a lease, the business must expect that the net present value of the expected future cash flows generated by the asset created by that lease will exceed (or at worst equal) the present value of the future lease payments. In other words, the value of the lease to the business must be equal to or greater than the present value of the future lease payments.[4]

[1] See, e.g., lines 11-16, page 24 of the day 4 transcript.

[2] See, e.g., lines 31-38, page 28 of the day 4 transcript.

[3] New Zealand External Reporting Board (EXAB), *New Zealand Equivalent to International Financial Reporting Standard 16 Leases* (NZ IFRS 16), February 2016, para.1. Available at: https://www.xrb.govt.nz/accounting-standards/for-profit-entities/nz-ifrs-16/

[4] We note that this is a different view to that expressed by Jeff Balchin at the conference (see page 29 of the day 4 transcript). However, as we discuss below, these different views reconcile as the term of a lease approaches the economic life of the underlying asset or more generally gets quite long.

8. And this is how IFRS 16 values leases (from the perspective of the lessee). NZ IFRS 16 states that for initial measurement, the lease asset[5] is valued at cost, which includes the value of the lease liability plus any initial direct costs.[6] The lease liability is calculated as the present value of lease payments, discounted by the interest rate implicit in the lease.[7,8]
9. Accordingly, IFRS 16 sets out a valid methodology for the measurement of the economic value of a lease for economic profitability purposes.
10. The Commission's ROACE calculations were done for the 2015-2019 financial years, which predate the application of IFRS 16. Because of the complexity of restating financial statements for IFRS 16 in the available timeframe, we applied an IFRS 16 proxy methodology to estimate the effect of recognizing the economic value of leases for the 2015-2019 financial years, as set out in our 6 September 2021 report.
11. Subsequent to the filing of that report, the Commission sought to better understand that proxy calculation. We worked with WWNZ to answer the Commission's questions - a copy of the responses is attached as Appendix A to this report.
12. We make two final comments on the lease topic.
13. Firstly, as the term of a lease approaches the economic life of the underlying asset or more generally gets quite long, then the asset value under IFRS 16 would approach the value of the asset being leased. Under IFRS 16 the lease term includes periods covered by a renewal or extension option if the lessee is reasonably certain to exercise the option.[9] This corresponds to the economic approach to valuing an asset (and any associated liabilities) created by the lease, which would assess the period over which the lessee expects to have the right to use the asset.
14. Secondly, Commissioner Small asked whether an approach to valuing a lease would be to use "the search costs, the transaction costs, negotiation costs, execution of the deed" as a proxy for replacement cost of the lease.[10] For the reasons already discussed, this is not the way to value a lease.

[5] More technically the "right-of-use asset".

[6] Clauses 23 and 24 of NZ IFRS 16.

[7] Clause 26 of NZ IFRS 16.

[8] Or if that rate cannot be readily determined, the lessee's incremental borrowing rate.

[9] Clause 28 of NZ IFRS 16.

[10] See, e.g., lines 11-16, page 31 of the day 4 transcript.

3. Problems caused by the exclusion of intangible assets

15. As noted in our 6 September 2021 report,[11] intangible assets that may not be measured for accounting purposes, but that are used to generate earnings, should be included in the denominator of the ROACE formula.

16. The existence of these economic assets, but which are not measured for accounting purposes, is why we observe material goodwill being paid for grocery businesses in competitive markets. We have already referred to the Amazon/Whole Foods and Morrisons examples in our 6 September 2021 report.[12] Other examples are:

    a. In 2016, Royal Ahold (now Ahold Delhaize) reported €5.9bn of goodwill in its merger with supermarket and food retailer Delhaize, 55% of the total transaction value.[13]

    b. In 2014, Kroger reported $901m in goodwill from the acquisition of Harris Teeter Supermarkets (representing 37% of the transaction value) and in 2015 Kroger reported $414m goodwill from the acquisition of Roundy's Supermarkets (48% of the transaction value).[14]

    c. Additionally, the convenience store operator Couche-Tard reported goodwill representing 78% of transaction value in the acquisition of convenience store chain The Pantry in 2015, and goodwill representing 52% of transaction value in the acquisition of CST convenience store chain in 2017.[15]

17. As noted by Jeff Balchin during the conference,[16] there is an economics literature analysing the importance of intangible assets.[17] These intangible assets are created by firm investments in, for example, knowledge, brand, reputation, employee training, and information technology. However, these investments are captured in accounting records as expenditure items, so they are not reflected in the capital value of firms.

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[11] [15], and see in particular footnote 15.

[12] [35].

[13] Ahold Delhaize (2016), *Annual Report 2016*, pg. 134, available from: https://media.aholddelhaize.com/media/s1pjua0t/ahold-delhaize-annual-report-2016.pdf?t=637526936571830000

[14] Kroger (2013), Notice of Annual Meeting of Shareholders: Proxy Statement and 2013 Annual Report, pg.A-44, available from: https://s1.q4cdn.com/137099145/files/doc_financials/2013/ar/Proxy-Statement-2013-Annual-Report.pdf; Kroger (2016), Notice of 2016 Annual Meeting of Shareholders: Proxy Statement and 2015 Annual Report, available from: https://s1.q4cdn.com/137099145/files/doc_financials/2015/ar/Proxy-Statement-2015-Annual-Report.pdf

[15] Alimentation Couch-Tard Inc (2016), *Annual Report 2016*, pg.64, available from:https://corpo.couche-tard.com/wp-content/uploads/2021/04/Annual-Report-En-20161.pdf Alimentation Couch-Tard Inc (2018), *2018 Annual Report,* pg.87, available from*:* https://corpo.couche-tard.com/wp-content/uploads/2021/04/2018AnnualReport.pdf.

[16] See lines 10-15, page 38 of the day 4 transcript.

[17] See, e.g., Andrea L. Eisfeldt, Edward Kim and Dimitris Papanikolaou (2021), "Intangible Value", NBER Working Paper Series No. 28056, available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3720983; Carol Corrado, Charles Hulten, and Daniel Sichel (2009), "Intangible capital and US economic growth", *Review of income and wealth*, 55(3), 661–685; Andrea L. Eisfeldt and Dimitris Papanikolaou (2014), "The value and ownership of intangible capital", *American Economic Review*, 104(5), 189–194; Antonio Falato, Dalida Kadyrzhanova, and Jae Sim (2013), "Rising intangible capital, shrinking debt capacity, and the US corporate savings glut", Technical report, FEDS Working Paper, No. 2013-67; Frederico Belo, Vito Gala, Juliana Salomao, and Maria Ana Vitorino (2021), "Decomposing firm value," *Journal of Financial Economics*, forthcoming; Michael Ewans, Ryan H Peters, and Sean Wang (2021), "Measuring intangible capital with market prices," Technical report, available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3287437; Ryan H. Peters and Lucian A. Taylor (2017), "Intangible capital and the investment-q relation", *Journal of Financial Economics*, 123, 251-272; and Nicolas Crouzet and Janice Eberly (2018), "Intangibles, Investment, and Efficiency," *American Economic Review – Papers and Proceedings*, 108, 426-431.

18. In general, this literature shows that these intangible assets are a material share of firms' capital stock, estimated at up to and around 50%.[18] Moreover, the literature shows that the share of intangible assets has been increasing over time, and highlights the importance of intangible assets in the retail sector as a substitute for physical capital assets. Crouzet and Eberly (2018, pp.430-431) give the example of how "Amazon's local delivery lockers coupled with innovations in logistics displace the more burdensome creation of a retail store, complete with cashiers, floor space and warehousing facilities".[19] In summary, this literature concludes that a firm's physical capital stock "mismeasures"[20] or is "downwardly biased"[21] in respect of the true measure of the capital value of the firm.

19. Many of the papers in this literature use the "perpetual inventory method" to convert the expenditure on intangible assets into a capital stock. We have used this method to calculate some of the intangible asset stock of WWNZ. Our approach is intended to illustrate the potential magnitude of these assets – we have not made any adjustments to our ROACE calculations to correct the denominator, as we have not had sufficient time to calculate how the numerator may also change. Nonetheless, we note the analysis of Ewans, Peters and Wang (2021), who account for intangibles in return on equity (ROE) calculations by adding back the intangible expenses and deducting depreciation of the intangible assets from the numerator, while also adding the capital value of these intangibles to the denominator.[22] They find that these adjustments lower the average annual ROE across a panel of US firms by approximately 40% (from 17% to 10%).

20. WWNZ provided us with data on its (non-capitalised) annual expenditure from FY17 to FY20 in the categories of staff training, IT and digital.[23] The perpetual inventory method calculates the intangible capital stock in year t, K_t, using the equation:

$$K_t = (1 - \delta)K_{t-1} + E_t$$

where δ is the depreciation rate for intangibles and E_t is the expenditure on intangibles in year t.

21. The initial intangible capital stock in year 0 is given by the equation:

$$K_0 = \frac{E_o}{\delta + g}$$

where g is the annual growth rate of intangibles expenditure.

22. Consistent with the literature that applies the perpetual inventory method, we assume a depreciation rate of 20% and a growth rate of 10%,[24] and utilising the WWNZ data on training, IT

[18] Eisfeldt, Kim and Papanikolaou (2021, p.1) refer to the papers by Eisfeldt and Papanikolaou (2014), Falato, Kadyrzhanova, and Sim (2013), Belo, Gala, Salomao, and Vitorino (2021) and Ewans, Peters and Wang (2021) and state that "all estimate the contribution of intangible capital to overall capital stocks to be around one half". The earlier Corrado, Hulten and Sichel (2009) paper estimates intangibles to be approximately one third of US capital stock in 2003.

[19] Nicolas Crouzet and Janice Eberly (2018), "Intangibles, Investment, and Efficiency," *American Economic Review – Papers and Proceedings*, 108, 426-431.

[20] Eisfeldt, Kim, and Papanikolaou (2021, p.1) state "The majority of intangible assets are created by investments in employee, brand, and knowledge capital that is expensed, and thus do not appear on corporate balance sheets. This has resulted in a growing mis-measurement of book assets".

[21] Ewens, Peters and Wang (2021) state "Current standards prohibit the capitalization of internally created intangibles, resulting in a downward bias of reported assets".

[22] Michael Ewans, Ryan H Peters, and Sean Wang (2021), "Measuring intangible capital with market prices," Technical report, available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3287437

[23] We understand from WWNZ that some of the IT and digital expenditure is capitalized. We are only capturing the expenditure that is not capitalized.

[24] This is consistent with the figures used in Eisfeldt and Papanikolaou (2014). While a 10% growth rate seems relatively high, this is a conservative assumption, as a lower growth rate would lead to a higher initial capitalized value for intangible assets. While others in the literature use different figures for both the depreciation rate and growth rate (often varying by

and digital expenditure,[25] we first apply the above equation for K_0 to determine an intangible asset value in FY17. We then apply the equation to determine K_t in each year from FY18 to FY20, taking into account the previous year's value for the intangible capital stock (K_{t-1}) and the current year's training, IT and digital expenditure (E_t). This yields a value for intangible assets in FY20 (the most recent annual period of the data we were provided) of approximately $[].

23. During the conference, Commissioner McWha asked how the Commission should distinguish between intangible assets and monopoly rents in goodwill.[26]

24. The most obvious solution would be to estimate a value for the relevant intangible assets. We did this for leases in our 6 September 2021 report (as discussed in section 2 above). Since the conference, WWNZ has also engaged KPMG to measure the value of WWNZ's brands. We discuss this further in section 4 below. And we have discussed just above a technique that could be used for other types of intangible assets.

25. There are still likely to be other intangible assets that are used by WWNZ to generate earnings, such as the distribution network of the business, customer data licences, customer contracts, supplier relationships, and transport contracts/networks (and as noted above, we have not sought to include the approximately $[] illustrative calculation above in the ROACE formula). We suggest two practical options for the Commission to account for the likelihood that the difficulty in valuing these intangible assets means a straight comparison with WACC will overstate economic profits:

    a. Add a margin to WACC (or equivalently, allow some leeway between the WACC estimate and the ROACE estimate before finding that profits are "too high"); or

    b. Compare the calculated ROACE to the calculated ROACEs of the firms in the Commission's sample, as both sets of measurements would be affected by the omission of unbooked intangible assets.[27]

26. When this second point was made during the conference, Commissioner Small *"wondered whether there's a real, just a real circulatory problem here … if you're going to benchmark against other firms, isn't it going to be the amount of goodwill that drives the estimated return to a competitive level, by definition?"*[28]

27. We do not think this is a concern, because the Commission excluded goodwill from the asset base when calculating ROACEs for its global sample.

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the specific expenditure category), because our analysis is intended to be illustrative only, we have not rigorously assessed the appropriate choice of depreciation rate and growth rate.

[25] The expenditure totals are: FY17, $[]; FY18, $[]; FY19, $[]; FY20, $[].

[26] See lines 6-16, page 35 of the day 4 transcript.

[27] We note that the Incenta report adjusted the ROACEs for the Commission's sample to account for leased assets. See: Incenta (2021), *Review of grocery retailing: Comment on the Commerce Commission's analysis of profitability - Report for Foodstuffs*, September 2021.

[28] See lines 10-17, page 36 of the day 4 transcript.

4. Revised ROACE using KPMG estimates of brand value

28. We explained in our 6 September 2021 report why it is appropriate to include the value of brands in the denominator of the ROACE formula.[29] In that report, we used a brand value of $169m, which was the fair value ascribed to the brands when Woolworths acquired the New Zealand business of Foodland in 2005 (what is now WWNZ).

29. As noted above, since the conference WWNZ has engaged KPMG to measure the value of WWNZ's brands. KPMG has valued the WWNZ brands (Countdown, Fresh Choice and SuperValue) as of 30 June 2014[30] at $[]m using the "NZCC Adjusted WACC" or $[]m using the WWNZ "Management WACC", as those terms are defined in the KPMG report.[31]

30. In Table 1 we set out the effect on ROACE.[32]

Table 1: ROACE[33] under different brand value estimates (2015-2019 average)

Estimate	Brand value	ROACE
No brand value	-	12.2%
Book value brand asset	$169m	11.2%
KPMG ("Management WACC")	$[]m	[]%
KPMG ("NZCC Adjusted WACC")	$[]m	[]%

Source NERA analysis, KPMG

31. The valuation technique adopted by KPMG is a function of forecast revenues (2014-2016 plus a terminal value). To anticipate any concern the Commission might have about circularity, the KPMG report sets out sensitivity tests based on assumptions of forecast revenue consistent with WWNZ having an EBIT margin at the average or 25th percentile of the Commission's global benchmark sample in each year across 2014-2016 (being the three specific years analysed by KPMG).[34] These assumptions were based on calculations by NERA, which are described in detail at Appendix B to this report.

32. We have then included these further estimates of brand value in our ROACE model – the results of these sensitivities are set out in Table 2. We note that normalizing revenue to give WWNZ EBIT margins at or below the comparator sample average does not have a material impact on the brand valuation.[35]

[29] Section 2.4.

[30] We understand this date was chosen because it was the start of the period analysed by the Commission for the profitability analysis.

[31] $[]m being the midpoint estimate in a range of $[]m-$[]m, and $[] being the midpoint estimate in a range of $[]m-$[]m.

[32] None of the calculations in this section include the other intangible asset values discussed in section 3.

[33] After adjusting for leases, as described in our 6 September 2021 report.

[34] I.e., an average EBIT margin of 3.63%, 2.66% and 2.96% for 2014, 2015 and 2016 respectively and a 25th percentile EBIT margin of 2.76%, 2.46% and 2.68% for 2014, 2015 and 2016 respectively.

[35] Because the changes are small, we report results to 2 decimal places to highlight the changes (and even then they may be too small to show up).

Table 2: ROACE[36] using brand values estimated on revenue normalized to give EBIT margins at average and 25th percentile of NZCC comparator sample (2015-2019 average)

Estimate	Brand value	ROACE
KPMG ("Management WACC")		
Forecast revenue	$[]m	[]%
2.9% revenue decrease (EBIT margin = average of comparator sample)	$[]m	[]%
3.1% revenue decrease (EBIT margin = 25th percentile of comparator sample)	$[]m	[]%
KPMG ("NZCC Adjusted WACC")		
Forecast revenue	$[]m	[]%
2.9% revenue decrease (EBIT margin = average of comparator sample)	$[]m	[]%
3.1% revenue decrease (EBIT margin = 25th percentile of comparator sample)	$[]m	[]%

Source: NERA analysis, KPMG.

5. International grocery price comparisons

33. The Commission has before it two conflicting analyses of New Zealand grocery prices compared to overseas grocery prices:
    a. The ranking analysis set out in the 4 February 2021 NERA report; and
    b. The price level indices (PLI) analysis set out in the Commission's 29 July 2021 draft report.
34. As we noted in our 6 September 2021 report, we do not agree with the Commission's critiques of our ranking analysis. We expand on our reasoning in Appendix C to this report, including responding to the particular points made by Commissioner Small as he introduced the first session of Day 4.[37]
35. Accordingly, there is mixed evidence as to whether grocery prices in New Zealand are relatively high or not.
36. However, whether New Zealand's grocery prices are relatively high *per se* does not matter for present purposes – what matters is whether New Zealand grocery prices are relatively high due to a lack of competition in grocery retailing. If New Zealand's grocery prices are relatively high because New Zealand is an expensive place to operate a grocery business, then that would not be a (grocery retailing) competition problem.
37. Even on the Commission's preferred benchmarking methodology, there is no solid support for the proposition that New Zealand grocery prices are high due to a lack of competition, whether conversions are carried out using market exchange rates or PPP exchange rates. As set out in our 6 September 2021 report, on the Commission's methodology using market exchange rates New Zealand's grocery prices rank seventh among OECD countries, while overall prices across the economy rank eighth. In addition, when PPP is used as the denominator in the Commission's

[36] After adjusting for leases, as described in our 6 September 2021 report.

[37] See lines 18-29, page 5 of the day 4 transcript.

methodology, 20 OECD countries have higher food prices relative to their general economy prices than New Zealand.

38. Accordingly, the debate that was had at the conference as to whether market exchange rates, PPP exchange rates or a hybrid should be used is largely irrelevant. Nevertheless, in light of the discussion at the conference, we briefly explore further the PPP versus market exchange rate issues.

39. The Commission is attempting to determine whether the service of grocery retailing in New Zealand is "too expensive" because of a lack of competition. The Commission's current study is not trying to figure out whether the inputs into grocery retailing (e.g., SKUs, land, labour) are "too expensive" because of a lack of competition. Rather, the present study is assuming that the prices of these inputs are a given.[38]

40. One of the reasons the Commission's draft report used market exchange rates rather than PPP exchange rates was the Commission's view that "grocery products are largely tradable" ([3.90]). In other words, the Commission's draft view is that:

    a. Tradability implies the use of a market exchange rate; while

    b. Non-tradability implies the use of a PPP exchange rate.

41. We think that using a market exchange rate for tradable products and a PPP exchange rate for non-tradable products is an orthodox approach in international price benchmarking.

42. Clearly the service of grocery retailing is not tradable – hence our use of PPP exchange rates for comparing prices across countries in our 4 February 2021 report, rather than market exchange rates.

43. Nevertheless, during the conference the Commission explored the possibility of applying a hybrid market/PPP exchange rate to account for the fact that some proportion of SKUs are tradable, even if the service of grocery retailing is not tradable. This resembles the approach the Commission has taken in telecommunications where it has benchmarked the *cost* of service using the output of cost models. This differs somewhat from benchmarking the *output price* of a non-tradable service.

44. If the Commission is minded to use a hybrid, it is very difficult to know what the balance would be between the market exchange rate and the PPP exchange rate. While we know that 63 cents in the dollar is paid by WWNZ to suppliers, it also the case that:

    a. Not all SKUs are tradable (e.g., fresh bread, fresh chicken, eggs); and

    b. Even for those SKUs that are tradable, some proportion of the price paid by WWNZ to suppliers will relate to non-tradable services, e.g., domestic transport, storage and in some cases sales teams, etc.

45. Therefore it is not clear the hybrid approach can be applied in a robust/precise manner.

46. More generally, we question the appropriateness of using a hybrid market/PPP exchange rate for a non-tradable service, even if some inputs to that service are tradable. It is likely that whenever PPPs are used to make international comparisons, components of what is being compared are tradable. A light-hearted example is *The Economist's* "Big Mac Index", which is an implementation of PPP. A Big Mac itself is not tradable, but components of it probably are (e.g., meat, packaging).

47. Indeed, we note that the indices from which PPP exchange rates are constructed will include many tradable products. Put another way, PPPs are constructed, bottom up, from goods and

[38] Although we acknowledge that buyer power issues are also of interest to the Commission's study.

services in an economy. Therefore, the PPP exchange rate already reflects the prices of tradable goods – i.e., goods we would expect a market exchange rate to apply to.

48. As a final point under this topic of market versus PPP exchange rates, Alex Sundakov made the following comment during the conference:[39]

> *But, I think that applying the purchasing power parity exchange rates to the non-traded part is, we need to be a little bit cautious. Because the PPP index is designed, well first of all the outcome of the PPP calculation is based entirely on the chosen basket of goods. And typically the PPP comparison are designed to try to assess the difference in the standard of living, take into account, you know, the basket of goods takes into account the goods that matter for consumers across, kind of, the entire range of their consumption types. And so one of the reasons why NZ, on NZD on PPP basis tends to be a lot stronger than on market price basis is because, say, medical services and many other kind of social type services in NZ that are provided free by the Government, don't include the out of pocket cost for New Zealand consumers as they do in many other countries.*

49. We interpret this statement to be a critique of the use of PPP exchange rates, because of their dependence on the underlying basket of products. To the extent this is a valid point, it is crucial to understand that it also applies to the Commission's preferred benchmarking methodology, because the PLIs used by the Commission are themselves built from PPPs.[40]

50. Finally, we also note that when opening the price comparison session on day 4 of the conference, Commissioner Small referred to "a preliminary analysis by Coriolis that suggested a price gap between New Zealand and the USA was somewhere between 2% and 6%."[41] We prepared a memo for WWNZ on the Coriolis report dated 12 April 2021, which we understand was filed with the Commission. For completeness we attach that memo as Appendix D to this report.

6. Potential dynamic efficiency costs of intervention and relationship with estimated benefits

51. The Commission has canvassed a range of options to deal with the issues it considers it has identified in its draft report, some of which are quite intrusive (e.g., vertical disintegration or forced divestments). While the Commission has stated that performing a cost benefit analysis is outside the scope of the market study, it is important that any proposed interventions are proportionate to the size of the identified problem. Failure to do so could result in net costs to consumers and dynamic efficiency costs in the broader economy.

52. In particular, regulatory uncertainty caused by disproportionate interventions could result in an increase in the cost of capital. Specifically, if the reasonable expectations of investors around government action are violated, this is likely to increase the hurdle rate that investors use for assessing investments.

53. This type of effect has been recognized by the Electricity Authority. In describing the benefits of increasing the durability of the transmission pricing methodology, the Authority stated:[42]

> *The proposal is expected to increase policy certainty for investors, and thereby reduce the cost of investing (that is, reduce the return needed to trigger an investment) in generation, load, and transmission. This is*

[39] See lines 9-18, page 11 of day 4 transcript.

[40] See [105] of our 6 September 2021 report.

[41] See lines 35-37, page 11 of day 4 transcript.

[42] Electricity Authority, 2019 Issues Paper, 23 July 2019, [4.143].

based on evidence that uncertainty increases the value of delaying an investment (so-called real options) and increases the level of private benefits required to trigger an investment.

54. Even though the Commission's recommendations in the current inquiry will be limited to the grocery sector, the effects would likely be felt much more broadly across the economy. Many markets in the small New Zealand economy are relatively concentrated and so potentially within the Commission's sphere of future interest.

55. The Commission can minimise the risks arising from uncertainty by:

    a. Rigorously defining and sizing any competition problem;

    b. Ensuring any reform option is proportionate to the problem; and

    c. Ordering and sequencing the reform options, starting with the lower cost options and only moving to the higher risk options if those lower cost options do not adequately address the problem.

56. In terms of whether there is a competition problem in grocery retailing, and sizing any such problem, the focus of our reports in this inquiry has been on profitability and price benchmarking. Considering just the former for now, the Commission's own analysis suggests that in grocery markets around the world, measured returns are generally in excess of WACC. The international comparison sample average returns are 11.4% over 2015-2019, which appears to be well in excess of the WACC the Commission would consider reasonable for grocery operators. This is relevant in two ways:

    a. Interventions to promote competition will push measured returns towards the level observed in other competitive grocery markets, not WACC. Returns in competitive grocery markets define the benefits (in the form of reduced rents) that can be achieved by intervening to promote competition; and

    b. Investors are likely to form their expectations on what a reasonable level of return (being that which would not prompt government action) is by looking at returns in markets that are considered competitive.

57. Therefore, and as already discussed in section 3 of this report, the level of returns in other grocery markets is a more appropriate benchmark than WACC for the Commission to compare returns against to determine whether they are excessive and also for determining the benefits of intervening (or alternatively the Commission could add a margin to WACC, as discussed in section 3 of this report).[43]

58. Given the intrusiveness of some of the recommendation the Commission has proposed, and the lack of evidence that returns exceed those in competitive grocery markets, there is a material risk that the interventions are disproportionate, would not pass a cost benefit test and would result in broader dynamic efficiency costs (in the form of firms having higher hurdle rates) due to the regulatory uncertainty created.

[43] We note that the Incenta report adjusted the ROACEs for the Commission's sample to account for leased assets. See: Incenta (2021), *Review of grocery retailing: Comment on the Commerce Commission's analysis of profitability - Report for Foodstuffs*, September 2021.

7. Private labels and innovation

59. Castalia's report for the New Zealand Food and Grocery Council (**"the FGC"**) argues that in unconcentrated (diffuse) retail grocery markets private labels can be beneficial, while in concentrated markets private labels can be detrimental to overall consumer welfare by reducing product variety and increasing general prices.[44] In other words, there can be costs and benefits for consumers from private labels. Therefore, the net effect is case specific, according to the Castalia report.

60. However, the Castalia report does not provide empirical evidence to suggest that private labels are net detrimental for consumers in New Zealand, other than noting that the New Zealand market is concentrated. In this sense, the Castalia report's argument is theoretical and does not consider whether there is evidence that suggests that New Zealand consumers in fact benefit from private labels.

61. The specific mechanism for the claimed harm is that private labels increase the bargaining power of the major supermarkets over suppliers and that the exercise of this buyer power will stifle innovation.[45] Specifically, the Castalia report argues that strong buyer power will lead to retailers taking profits from suppliers and eventually hollow out the upstream supplier market.[46]

62. However, the Castalia report does not examine consumer preferences for product variety and innovation, and how these preferences would affect the incentives of grocery retailers. As the Commission itself noted in its draft report, one of the dimensions on which the major grocery retailers compete is product range.[47] It also seems likely that WWNZ and Foodstuffs will be conscious there are other outlets for innovative and unique products, e.g., Farro Fresh, Moore Wilson's, Huckleberry, and online grocery retailers. As noted in WWNZ's submission in response to the preliminary issues paper, more than half of New Zealanders shop at specialty grocers or non-grocery retailers at least once a month.[48] This "cross-shopping" means that consumers are consistently exposed to alternatives which they may start favouring more heavily if a major retailer were to reduce its range.

63. Accordingly, it seems unlikely to be in the interests of WWNZ and Foodstuffs for the upstream supplier market to be "hollowed out". Rather, it is more likely that they would prefer to have a vibrant upstream sector.

64. Consistent with this is the following WWNZ evidence:

    a. In 2020, WWNZ ranged over [] new products from over [] suppliers with annual sales in Countdown of less than $1m;

    b. Across all products and suppliers regardless of sales volume, over [] new lines from nearly [] suppliers were introduced over the last year; and

    c. Countdown retails on average 26,000 SKUs and turned over an average of roughly [] lines, or roughly [] percent of its products, annually in each of the last three years.[49]

65. Finally, the FGC argues at [6.50] of its submission on the draft report:

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[44] Castalia, *Private Labels, Buyer Power and Remedies in the NZ Grocery Sector*, August 2021, p 10.

[45] Castalia, *Private Labels, Buyer Power and Remedies in the NZ Grocery Sector*, August 2021, p 9.

[46] Castalia, *Private Labels, Buyer Power and Remedies in the NZ Grocery Sector*, August 2021, p 9.

[47] E.g., [4.48].

[48] WWNZ,*Woolworths New Zealand Limited's submission on the New Zealand Commerce Commission's preliminary issues paper regarding the market study into the retail grocery sector*, 4 February 2021, p 73.

[49] Information provided by WWNZ.

> *The Commission identified a low (by global comparisons) penetration of both edible and non-edible private label products in New Zealand. However, the identifiable private label products in New Zealand (noting other supermarket-owned labels would not have been included) are shared by just two major retailers. This compares, for example, with the 8-10 major supermarkets in the UK sharing the UK private label penetration which might translate to an average of around 2-3% each supermarket.*

66. This math is incorrect and misleading. As described in the note accompanying the figure originally from the WWNZ submission, the UK values are aggregated sales across major grocery retailers. This means that the penetration percentage of 52 percent for edible private label is calculated by taking the aggregate private label sales as a percentage of the aggregate total sales, indicating an *average* penetration across all stores of 52 percent (or, for non-edible, an average of 23 percent). There is no additive property to the calculation, as suggested by the NZFGC. The number of retailers involved is irrelevant to the calculation aside from its influence on the average.

Appendix A. Response to the Commission's queries regarding our IFRS 16 proxy methodology

The following text is copied from the response provided to the Commission on 12 October 2021 following the Commission's queries about the IFRS 16 adjustments made by NERA (working with WWNZ).

NZCC Question

You have calculated the value of the asset lease by multiplying the annual lease expense by a constant capitalisation rate of []. You have then determined the lease interest expense as the value of the lease asset multiplied by a constant cost of debt of []%. The lease depreciation is then calculated as the difference between the annual lease expense and the lease interest expense.

However, our understanding of the determination of the value of capitalised leases and the associated lease interest expense and lease depreciation are based on the Present Value (PV) of the interest payments and the PV of the depreciation charges. The PV calculation of interest and depreciation expenses are also independent of one another. For example, the annual lease depreciation should be based on the value of the lease divided by the life of the lease and is not influenced by the lease interest expense. In addition, the constant nature of the capitalisation rate of [] suggests a single lease, whereas Woolworths NZ is likely to have multiple leases being renewed and expiring over time, which would suggest this capitalisation rate should vary over time.

1. *Can you please provide a rationale for the approach you have taken and the underlying assumptions behind the calculations.*

2. *Can you provide the underlying data that you used to develop the Capitalisation Rate of [] and the annual lease expenses.*

3. *Can you also comment on the use of a constant []% cost of borrowing that is used.*

Response

1. Can you please provide a rationale for the approach you have taken and the underlying assumptions behind the calculations?

Resource and time constraints mean restating the past 10 years of accounting data to comply with IFRS 16 is not practical. WWNZ has over [] property leases, which makes ex post restating of lease accounts very complex. Therefore, our calculation is a proxy, which is also the methodology used by rating agencies and analysts to capitalise lease costs.

- **Resource and time constraints meant restating the past 10 years of accounting data to comply with IFRS 16 is not practical:** To restate a firm's accounts to precisely calculate the impact of IFRS 16, in each year the changes in lease accounting must be applied at the individual lease level. The lease liability, asset, depreciation and interest expense depend on the lease start date, term, payments, and the firm's incremental cost of borrowing in the commencement year of the lease. This would entail going back and reviewing the lease documentation that was in place each year and looking for such things as rent reviews or other lease modifications. The information needed to do this is generally not readily accessible in existing accounting data or systems. This all means that acquiring the information necessary to restate previous years'

accounts under IFRS 16 involves significant manual steps and would be very time consuming, especially if a firm has a number of leases.[50]

- **WWNZ has over [] property leases,** which means that restating accounting data to have the information needed to fully calculate lease capitalisation under IFRS 16 is very complicated. The project to ensure the Woolworths business was able to report its financial results in accordance with IFRS16 when it was first fully implemented in 2020 lasted more than a year.
  - As part of the Woolworths Group Limited EDG separation, Woolworths Australia carried out an exercise to restate comparative years back to only FY18 for IFRS 16. The exercise was complex and took several months to complete (including additional assistance from an external accounting firm).
  - All of the retrospective recalculations of the lease values cannot be completed in the Woolworths lease system that calculates the lease accounting entries post implementation of IFRS 16, i.e., a separate model would have to be established.
- **The ROACE calculation conducted is therefore a proxy.** Due to the constraints already noted, as explained in the NERA report, the calculation is a proxy for the IFRS 16 treatment of leases in the aggregate, not the actual calculation that would be made under IFRS 16.[51]
- **This proxy calculation in consistent with how financial analysts adjusted financial statements for off balance sheet leases prior to IFRS 16 being introduced**. For example, the calculation follows the general methodology to account for leases used by both the International Accounting Standards Board (IASB) to illustrate the effects of IFRS 16 on financial statements,[52] and Moody's credit rating agency to make financial statement adjustments for companies that have off balance sheet leases.[53,54] These rating agencies have performed these high level calculations for many years to capitalise leases onto the balance sheet for a wide range of companies. There is therefore clear precedent for this method of determining an appropriate adjustment.
- **Detail of calculation and assumptions:**
  - ***Relationship between lease interest and depreciation***: Over the life of a lease, the sum of the lease payments equals the sum of the lease interest expense and lease depreciation. To ensure this relationship holds, our approach for the proxy calculation was therefore to assume that in any given year the lease interest and depreciation were equal to the lease payment. This was done by making an interest rate assumption and then treating depreciation as a residual. In this sense, the interest rate assumption merely allocates the lease payment between interest and depreciation. The interest rate assumption therefore does not have a material impact on the calculated ROACE.[55] While the NZCC is correct that under IFRS16 lease depreciation and the interest expense are calculated separately (and their sum can be greater than the lease payment early in the lease life), they are still related given their sum is equal to the sum of

[50] Lease accounting post-IFRS 16 going forwards is simpler than trying to apply IFRS 16 lease accounting to previous years as no accounting needs to be reversed, and a model is already established that includes current leases.

[51] NERA (2021), *Grocery Market Study: Review of the NZCC Draft Report,* Report for Woolworths New Zealand Limited, 6 September 2021, para. 61.

[52] See: International Accounting Standards Board, *IFRS 16 Leases – Effects Analysis*, January 2016

[53] See: Moody's (2015), Cross-Sector Rating Methodology: Financial Statement Adjustments in the Analysis of Non-Financial Corporations, June 2015, and Moody's (2021), Cross-Sector Rating Methodology: Financial Statement Adjustments in the Analysis of Non-Financial Corporations, March 2021.

[54] We also follow the NZ IFRS 16 standards where possible.

[55] The only impact being that allocating more of the lease payment to interest increases the interest tax shield, which increases ROACE.

lease payments over the life of the lease.[56] Had we taken a different approach and calculated them separately in a proxy calculation, this relationship may have been violated.

- ***Constant capitalization assumption:*** The capitalisation rate is the ratio of the lease expense to the value of the lease asset. The capitalisation rate for an *individual* lease is therefore a function of the lease term, the implicit interest rate, and the remaining life of the lease. In addition, as the lease asset is depreciated, the multiplier will fall over time, all other things being equal. Rather than assuming a single lease as posited by the NZCC, the approach is instead to look at all the leases in aggregate. As WWNZ has more than [] leases with different start dates that are constantly starting, finishing or renewing, it seems reasonable to assume that the capitalisation rate would remain relatively constant over time. The approach adopted is therefore to use WWNZ's actual aggregate capitalisation rate in the single year for which it has IFRS16 compliant accounts (FY20). This approach reflects the average capitalisation rate across the more than [] leases WWNZ has. This approach (a constant capitalisation rate) is consistent with our understanding of adjustments made by financial analysts. For example, Moody's uses constant sector multipliers if it is not possible to calculate the present value of lease payments.[57]

2. Can you provide the underlying data that you used to develop the Capitalisation Rate of [] and the annual lease expenses?

The capitalisation rate multiplier is calculated using the ratio of the 2020 lease asset to the lease expense, as calculated under IFRS 16.

- 2020 IFRS 16 lease asset = $[]
- 2020 IFRS 16 lease expense (total lease payment) = $[]
- Capitalisation rate = $[] / $[] = [] (rounded)

3. Can you also comment on the use of a constant []% cost of borrowing that is used?

The []% interest rate used is WWNZ's incremental cost of borrowing. Under IFRS 16 a firm's incremental cost of borrowing should be used if the implicit interest rate is unable to be determined, which is likely the case for property leases. The 2019 incremental cost of borrowing, which is the average lease interest rate used for 2020 under IFRS 16, is an appropriate proxy for the average lease interest rate over the previous periods as the lease interest rate is not expected to move rapidly over time.

- **A firm's incremental cost of borrowing can be used as the lease interest rate under IFRS 16.** Under NZ IFRS 16 accounting standards, the lease interest rate used in calculating the value of the lease liability and the lease interest expense should be:[58]
  - The interest rate implicit in the lease, calculated as

    *The rate of interest that causes the present value of (a) the **lease payments** and (b) the **unguaranteed residual value** to equal the sum of (i) the **fair value** of the **underlying asset** and (ii) any **initial direct costs** of the lessor*

[56] In addition, because the sum of lease interest and depreciation is greater than the lease expense at the beginning of lease and less than the lease expense at the end of the lease, in the aggregate with many overlapping leases it doesn't seem unreasonable to assume that the lease interest and depreciation would equal the lease expense on average across the lease portfolio.

[57] For example, Moody's current guidance on the capitalisation multipliers to use is a single number by sector (Moody's (2021), pg.11), and we understand these numbers haven't been revised since 2015 (Moody's (2015), pg.10).

[58] See: New Zealand External Reporting Board (EXAB), New Zealand Equivalent to International Financial Reporting Standard 16 Leases (NZ IFRS 16), February 2016,. Available at: https://www.xrb.govt.nz/accounting-standards/for-profit-entities/nz-ifrs-16/

  - Or, if the implicit interest rate cannot be determined, the firm's incremental cost of borrowing is used.

- **It is likely that it would be difficult to determine the implicit interest rate for property leases, and most of WWNZ's leases relate to property:** To calculate the interest rate implicit in a lease, the fair value of the underlying asset and the residual value at the end of the lease period must be known, which is unlikely to be the case.[59] Therefore, the incremental cost of borrowing is generally the appropriate interest rate to use for property lease.
- **The implicit interest rate is set when a lease is entered into and fixed for the term of the lease**. This implicit interest rate is set at the commencement of the lease and does not change for the term of the lease, unless there are modifications to the lease conditions or term.[60]
- **So, the interest rate will vary over time, but will do so slowly and will not directly track short-term interest rate movements.** The average firm wide lease interest rate (i.e., the interest rate implied by the total lease liability and total lease interest payment for the firm that year if calculated under IFRS 16) would only vary as leases commence, renew or expire (or are modified). Thus, the average interest rate across all leases used to determine the interest expense would move slowly over time.
- **Therefore, the 2019 incremental cost of borrowing is a good proxy for the average lease interest rate** for the period of analysis under IFRS 16.
- **The WWNZ incremental cost of borrowing for 2019 is []%.** We use an interest rate of []% which is WWNZ's weighted average incremental cost of borrowing for 2019, as stated in the WWNZ 2020 financial statements.[61]

[59] See e.g. GrantThornton (2018), *Insights into IFRS 16 – Understanding the discount rate*, 2018, pg.2, available at: https://www.grantthornton.global/globalassets/1.-member-firms/global/insights/article-pdfs/ifrs/ifrs-16---understanding-the-discount.pdf, and Deloitte (2016), *Thinking allowed – The new lease accounting,* 2016, pg.16, available at: https://www2.deloitte.com/content/dam/Deloitte/nz/Documents/audit/Thinking-allowed-Leases.pdf

[60] New Zealand External Reporting Board (EXAB), New Zealand Equivalent to International Financial Reporting Standard 16 Leases (NZ IFRS 16), February 2016, para.37.

[61] Woolworths New Zealand Group Limited (2020), *Annual Report*, 28 June 2020, pg.11

Appendix B. Revenue adjustments for KPMG analysis

The "relief-from-royalty" valuation technique used by KPMG is a function of forecast revenues.[62] We have estimated a normalised revenue for WWNZ which adjusts WWNZ's revenue such that its EBIT margin is the same as the average and 25th percentile of the Commission's international benchmark sample. This normalized revenue can then be used as a sensitivity test to address any concerns about circularity in using revenue in the brand value estimate.

This revenue adjustment is calculated for each year analysed by the KPMG report (2014-2016):

- Starting with the NZCC EBIT margin calculation formula for WWNZ.
- The revenue input value is varied to the point where the calculated EBIT margin for WWNZ is equal to the EBIT margin of the international benchmark sample.
  - This is done for both the average and 25th percentile EBIT margin of the international sample.
- The percentage revenue adjustment is calculated as the revenue adjustment required to set WWNZ's EBIT margin equal to the comparator level (average or 25th percentile of the comparator sample) over initial unadjusted revenue.
- The largest negative revenue adjustment across 2014-2016 is used to sensitivity test the brand valuation.

This results in a revenue adjustment of -2.9% for the average EBIT margin, and -3.1% for the 25th percentile. These calculations are set out in Table 3.

Table 3: WWNZ revenue adjustment to match international sample EBIT margin ($000)

WWNZ EBIT margin	**2014**	**2015**	**2016**
Sales revenue	5,946,275	5,877,961	6,101,377
WWNZ EBIT	**328,690**	**323,048**	**267,395**
WWNZ EBIT margin	**5.5%**	**5.5%**	**4.4%**

WWNZ EBIT margin = average international sample	**2014**	**2015**	**2016**
Sales revenue	5,946,275	5,877,961	6,101,377
Revenue adjustment	(117,072)	(170,986)	(89,401)
Adjusted sales revenue	5,829,203	5,706,975	6,011,976
WWNZ EBIT	**211,618**	**152,062**	**177,994**
WWNZ EBIT margin	**3.63%**	**2.66%**	**2.96%**
Benchmark average EBIT margin	**3.63%**	**2.66%**	**2.96%**
WWNZ revenue adjustment (%)	**-1.97%**	**-2.91%**	**-1.47%**

WWNZ EBIT margin = 25th percentile international sample	**2014**	**2015**	**2016**
Sales revenue	5,946,275	5,877,961	6,101,377
Revenue adjustment	(169,341)	(182,923)	(106,794)
Adjusted sales revenue	5,776,934	5,695,038	5,994,583
WWNZ EBIT	**159,349**	**140,125**	**160,601**
WWNZ EBIT margin	**2.76%**	**2.46%**	**2.68%**
Benchmark 25th percentile EBIT margin	**2.76%**	**2.46%**	**2.68%**
WWNZ revenue adjustment (%)	**-2.85%**	**-3.11%**	**-1.75%**

[62] Specifically, the forgone royalty payments are calculated by applying a benchmarked royalty rate to WWNZ's forecast revenue over the period.

Appendix C. Responses to Commission's critiques of NERA benchmarking analysis

We responded to the Commission's critiques of our 4 February 2021 report in section 5.3 of our 4 September 2021 report. We set out below our specific responses to Commissioner Small's statements during the conference.

Commissioner Small statement[63]	NERA response
"the raw data was not collected by official statistics agencies"	National statistical agencies do not publish their product-level prices, and therefore our methodology cannot be undertaken using data from one of these sources. The product-level price data collected by the Economist Intelligence Unit is passed through a series of internal checks to ensure accuracy.[64]
"the data for cities rather than countries"	This is correct, but the surveyed cities are major ones.
"the median of ranks method approach to comparisons between cities, doesn't take account of actual consumer shopping behaviour, it assumes people are basically buying one of each thing, whereas shoppers tend to focus more on things that they're particularly after"	The ranking method is intended precisely to manage the fact that what people buy can vary materially. As set out in our 4 February 2021 report, the ranking methodology is designed to manage the risk that arises when a typical consumer basket is assumed across countries (and even within countries). Because of different preferences and income, the typical consumer grocery basket is likely to vary across countries. Even within a country, consumer heterogeneity may make it difficult to define what is "typical". We do not know what these typical (or other) baskets are. This raises a material risk of the price comparison results being skewed by irrelevant prices. The ranking approach smooths extreme results stemming from large variations in prices, therefore mitigating our inability to control for specific consumer preferences/baskets.
"converting currencies using PPP exchange rates is not appropriate for groceries since they are internationally tradable"	See the discussion in section 5 of this report.

[63] See lines 18-29, page 5 of day 4 transcript.

[64] The Economist Intelligence Unit, *City Data*. Available at https://www.eiu.com/n/solutions/citydata/.

Appendix D. Previous review of Coriolis analysis

MEMO

TO: James Radcliffe, General Counsel, Woolworths New Zealand Limited

DATE: 12 April 2021

FROM: James Mellsop, Will Taylor and Barbara Kaleff

SUBJECT: **Coriolis waterfall chart**

1. You have asked for our comments on the Coriolis waterfall chart that appears on page 10 of the 4 February 2021 submission by the New Zealand Food & Grocery Council.
2. We agree that there are certain New Zealand-specific grocery cost drivers beyond retailers' control, such as the inter-Island supply chain logistics and small scale of New Zealand noted in the Coriolis waterfall chart. To this we would add the cost of international and domestic freight, as noted in WWNZ's 4 February 2021 submission.
3. However, beyond this qualitative point, the Coriolis waterfall chart is of no informative value. It is purely stylistic, with no references to evidence, data or quantification to support the claimed components (including their size) of the waterfall. In particular:
    a. It appears to be simply assertion that average New Zealand food/FMCG prices are 20-30% higher than average prices in the US. This is in contrast to the analysis in our 4 February 2021 report, which (while acknowledging the difficulties in making international comparisons) rigorously analyses a reputable independent database and finds that prices in Auckland and Wellington generally compare favourably with most of the US cities included in the data.
    b. There is no justification given for the 1-3% premium attributed to a "duopoly premium" or the alleged "lack of retail format diversity".

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