DAIRY NOTIONAL PROCESSOR'S ASSET BETA – RESPONSE TO SUBMISSIONS

NEW ZEALAND COMMERCE COMMISSION

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1. INTRODUCTION

The New Zealand Commerce Commission (the Commission) have requested that we consider and provide our views on the submissions it received on our report titled 'Dairy Notional Processors' asset beta' (CEPA, 2018), which was published on 28 March.

We have focused on responding to Fonterra's main submission (Fonterra, 2018), and accompanying reports by the University of Auckland Business School (UOA, 2018) and NERA Economic Consulting (NERA, 2018), which were critical of several aspects of our analysis and findings. We note that the Commission also received submissions from Goodman Fielder, Miraka and Open Country Dairy which were generally supportive of our approach and conclusions.[1]

After careful consideration of Fonterra's and its advisors' arguments, we do not believe the submissions contain arguments or evidence sufficient for us to reconsider the approach we took to determining the Notional Processor's (NP's) asset beta. Instead, we are concerned that Fonterra's and its advisors' submissions set out a NP construct with characteristics that do not reflect an independent practically feasible efficient processor.

In the rest of this paper, we:

- firstly, respond to what we consider to be Fonterra's main criticisms of our approach;
- secondly, respond to UOA's detailed comments on our approach to assessing relative risk across possible comparators for the NP's asset beta; and
- lastly, provide an erratum for CEPA (2018).

[1] All the submissions are available via the Commission's website. http://www.comcom.govt.nz/regulated-industries/dairy-industry/review-of-fonterra-s-farm-gate-milk-price-and-manual/statutory-review-of-milk-price-calculation-2/review-of-milk-price-calculation-201718-season/

2. RESPONSE TO FONTERRA'S MAIN SUBMISSION

In this section we respond to several of the broad points made in Fonterra's main submission, namely:

1. CEPA (2018) does not properly consider the characteristics of the NP [Fonterra paragraph 6(a)].
2. Fonterra's asset beta should be included in CEPA's analysis [Fonterra paragraph 6(d)].
3. The evidence from independent processors continued investment indicates that the asset beta feeding into Fonterra's milk price promotes contestability [Fonterra paragraph 7(b)].
4. Our commodity exposed sub-sample was incorrect [Fonterra paragraph 57].

We address UOA's (and therefore Fonterra's) concerns about our sample analysis in Section 3.

2.1. The nature of the NP

Fonterra argues that we did not appropriately consider the uniqueness of the Notional Processor (NP). Given the NP's characteristics Fonterra argues that there are no relevant comparators in the dairy sector, specifically:

- Fonterra states that CEPA is incorrect to assume that non-New Zealand processors can pass on price systematic risk.[2]
- UOA states that the NP "is subject to limited competition and may have a high degree of market power in setting the farmgate milk price", this contrasts with markets where there are many processors that actively compete for milk supply.[3] UOA go on to state that "in markets where processors have less market power or absent specific regulations, then processors may be subject to "hold-up" risk" and therefore "individual processors may be limited in their ability to pay lower raw input costs or milk prices to supplier farmers in the event of a downturn in the market."[4]
- NERA states that "[t]he NP is a regulatory construct - it is a notional subset of Fonterra's actual business, used to deliver a transparent calculation of the farm gate milk price. The various constraints/assumptions used to define the NP mean it bears little relation to any real-world dairy firm outside of New Zealand. … The uniqueness of the NP makes the standard approach to estimating the asset beta by finding "comparable" firms a difficult exercise."[5] NERA argues that "the Commission should

[2] Fonterra (2018) paragraph 41.
[3] UOA (2018) paragraph 6.2.4.
[4] UOA (2018) paragraph 6.2.5.
[5] NERA (2018) paragraph 25.

be open to the comparator set including non-dairy companies, or indeed excluding dairy companies".[6]

We note that Fonterra, UOA and NERA have been careful to refer to non-New Zealand companies as not sharing the same characteristics as the NP. The Fonterra submissions did not appear to provide an examination of the risk profile of an independent New Zealand processor that does not operate under the same regulatory conditions and/ or have a similar degree of market power.

In CEPA (2018) we accepted the Commission's general view that if it was possible for the NP to pass-through price (and volume) risk then other New Zealand processors might be able to do the same. We investigated the possibility of other, non-New Zealand companies, in a similar sector to Fonterra, being able to transfer on some of the price (and possibly volume) risk as well as identify sub-samples with other similar characteristics to the NP. In our view, if we can control for the price (and volume) pass-through aspects of the risk profiles, it makes sense to review the asset betas of companies that have similar cost bases, operating characteristics, and longer-term growth options to that of the NP. As per our relative risk analysis, we do not consider that ELBs fit this profile.

The sub-samples developed and presented in CEPA (2018), were designed to identify specific characteristics in different sub-groups as we were unable to identify a company(ies) with all of the same characteristics of the NP. Our analysis showed that for the most recent five-year period isolating these characteristics in the sample did not appear to result in sub-sample average asset betas that were materially different from the full sample. (Although there was more variation across the sub-sample asset betas and the full sample asset beta for the first five-year period to 15 January 2013.) This approach of isolating the different characteristics does not provide a perfect comparison point for the NP's asset beta; it does, however, provide a strong indication that commodity exposure and price pass-through abilities do not materially impact on companies' asset betas.

In our view Fonterra's and its advisors' statements indicate that their proposed risk profile, and therefore asset beta, for the NP is only achievable if the NP benefits from its position of market power and a lack of competition. We find these points difficult to align to the requirement that the asset beta reflect that of a practically feasible efficient processor.

2.2. Fonterra's asset beta should be included in the sample

We excluded Fonterra's asset beta as we did not consider there was significant liquidity in the Fonterra share trading and that the structure of the Fonterra Co-Operative Group means that trading in it may be different to that of a more traditionally structured company. We recognise that some of the other companies included in the sample may also have low liquidity,

[6] NERA (2018) paragraph 23.

however to the best of our knowledge they did not have the same combination of factors affecting them.

While we disagree with Fonterra's view that FCG should be included in the sample, below we provide the asset beta averages for the sample with Fonterra included. We have included Fonterra in the full sample and dairy companies, commodity exposed, and cost pass-through sub-samples. Table 2.1 sets out the average asset betas with Fonterra excluded and Table 2.2 provides the asset betas with Fonterra included. Please note:

- Due to a correction for a formula error, the asset betas for 'commodity exposed' and 'cost pass-through' are different from those presented in our report dated 28 March 2018. Table 2.1 shows the previously reported values in square brackets.
- We have excluded Dairy Crest from our commodity exposed sub-sample (see discussion in Section 2.4).
- We have only presented the asset beta averages for the five-year period to 15 January 2018 as Bloomberg data only starts from November 2012.
- Our weekly asset beta for Fonterra (NZX:FCG) is 0.09, this differs from Fonterra's estimate of 0.14.[7] A plausible reason is that Fonterra used an average over all reference days i.e., calculated a weekly beta for Monday, Tuesday, Wednesday, Thursday and Friday.

Table 2.1: Asset beta across samples excluding Fonterra, five-year period to 15 January 2018

Chosen sample	Daily		Weekly		4-weekly	
Full sample	0.58		0.50		0.56	
Dairy companies	0.58		0.53		0.59	
Commodity exposed	0.51	[0.53]	0.48	[0.49]	0.54	[0.52]
Cost pass-through	0.53	[0.55]	0.49	[0.51]	0.52	[0.54]
Regulated milk price	0.57		0.49		0.61	
Across all sub-samples	0.56		0.51		0.57	

Source: Bloomberg, CEPA analysis

Table 2.2: Asset beta across samples including Fonterra, five-year period to 15 January 2018

Chosen sample	Daily	Weekly	4-weekly
Full sample	0.57	0.49	0.56
Dairy companies	0.56	0.50	0.57
Commodity exposed	0.48	0.44	0.52
Cost pass-through	0.50	0.46	0.50
Regulated milk price	0.57	0.49	0.61

[7] Fonterra (2018) paragraph 60.

Chosen sample	Daily	Weekly	4-weekly
Across all sub-samples	0.54	0.49	0.56

Source: Bloomberg, CEPA analysis

Including Fonterra's asset beta lower the averages of the full sample and sub-samples by a small amount; 0.01 in the full sample, and up to 0.03 in the commodity exposed and cost pass-through samples.

2.3. New Zealand independent processors are continuing to invest

Fonterra has posited that evidence of independent processors continuing to invest and earn reasonable returns suggest that its estimate for the NP's asset beta promotes contestability. While this evidence could support Fonterra's hypothesis, it could also be explained by other factors, such as greater cost efficiencies at the other processors.

2.4. The 'commodity exposed' sub-sample was incorrect

Our approach to identifying the sub-samples was to look at comparators' exposure to commodity markets. A large portion of exposure is based on revenue mix, but some companies have fluctuating earnings due to their exposure to commodity inputs. The test we applied in our review of the companies was to look at their business units and earnings exposure to commodity fluctuations, and to attempt to look past the labels given to divisions and product groups.

We respond to Fonterra's comments on the four companies identified in Fonterra (2018) paragraph 57 in the table below.

Table 2.3: Commodity exposed subsample

Fonterra comment	Our response
Bega's 2016 Annual Report showed that 78% of Bega's 2016 revenue was from the sale of consumer packaged goods and nutritional products	**We still consider that Bega does have commodity exposure.** • There are conflicting numbers in the 2016 annual report. • The chart on page 15 of the same annual report shows about a 45% share of revenues in "core dairy ingredients". This chart is similar in 2017. • The 2016 annual report (Bega, 2016) stated (page 14) that 11% of group revenue was generated by consumer and food service products, and also that sales revenue in the nutritionals business has exceeded $200m for the first time. Group revenue in that year was $1.196bn, leaving nutritional at about 17%. In the 2017 annual report (Bega, 2017), nutritionals was identified as 15% of revenues (page 13). Branded sales totalled $289m (same page reference) or 24% of sales, but include some packaged commodity ingredients and cheese.

Fonterra comment	Our response
	• The disclosure in Bega's reporting often describes the Tatura business as "nutritionals" but much of this remains "commodity product".
Dairy Crest disposed of its liquid milk business in 2015 and its business has subsequently primarily comprised branded cheese and butter	**We agree with Fonterra and Dairy Crest should not have been categorised in the 'commodity exposed' sub-sample.**
Murray Goulburn's ingredients sales comprised just 33% of total revenue in the first half of the 2016/17 financial year	**We still consider that Murray Goulburn does have commodity exposure.** • We investigated revenue "ingredients". A large part of the commodity exposure is in bulk cheese, milk and fats sold by MG which are not classed as ingredients. • In the 2017 and 2016 years, MG had shuffled disclosures to attempt to improve the perceptions in the marketplace as to their progress with improving value capture. This resulted in heavy losses. • Despite that, MG reported in FY 17 that ingredients were $824m, while international dairy foods (bulk cheese, UHT and butter) were $106m. Bulk product not in branded goods – given the disclosed total of branded sales – was a further $614m (all these numbers come from, or derived from, page 5 in Murray Goulburn (2017)). • These total 62% of revenue, making a commodity-exposed product a significant portion of sales.
Saputo's dairy ingredients sales comprise just (circa) 2% of Canadian revenue and 6% of US revenue, with the balance from retail and foodservice.	**We still consider that Saputo does have commodity exposure.** • We consider bulk cheese markets as commodity-exposed rather than the division Saputo terms as "ingredients". • We have assessed that sales into the foodservice sector, which are a significant portion of both US (49%) and Canadian (35%) business, are generally commodity by nature as prices move with wholesale market cycles. The reports in each year describe the exposure of the business to movements in block cheese prices, both in selling prices and buying prices for raw and bulk inputs. • The separate international division (cheese and milk powders, based in Australia and Argentina) is described as heavily exposed to global market prices.

Source: Fonterra (2018), Freshagenda

3. RESPONSE TO UOA'S SUBMISSION ON OUR RELATIVE RISK ASSESSMENT

We have only responded to those relative risk areas where we consider that UOA substantively disagreed with our analysis and conclusions.

3.1. Asset beta estimation (UOA Section 7)

3.1.1. Revenue risk

UOA's view

The sample, sub-sample and ELBs all have higher systematic risk.

UOA disagreed that the 'commodity price pass-through' companies would have a similar risk profile to the NP. UOA noted that our analysis of commodity pass-through companies indicates that they only have 'some' ability to pass-through price (and potentially volume risk).[8] UOA also highlighted that in Annex D3, we stated that the companies are still exposed to some commodity price risk.

UOA disagreed with our view that regulated milk price entities have a similar systematic risk exposure to revenue risk.

Regarding the ELBs sample, UOA's view is that the empirical estimate of 0.35 will be biased upwards as the ELB sample includes vertically integrated and non-regulated energy businesses.

Our view and response

Dairy companies have higher risk, while commodity price pass-through, regulated milk prices and ELBs have similar systematic revenue risk.

We assumed that the demand for milk was relatively inelastic and therefore volume risk was low for dairy companies.[9]

The commodity price pass-through group was identified based on their ability to pass on prices relatively rapidly. While there may be a lag in their ability to do this, if price changes are symmetric over time then the impact of the lag will likely be low so long as the volumes do not vary significantly over time. While companies' ability to pass-through all price risk in a prompt manner is unlikely, our research showed that there was scope for them to pass on some of this risk. As this group did not have a lower average asset beta than the full sample it indicated that the ability to pass on price risk was not necessarily a significant contributor to a positive asset beta.

[8] UOA (2018) paragraph 7.11.

[9] Auckland UniServices (2014), page 23, noted that "*Commodity ingredients are an essential component to value added dairy products and should have a relatively low elasticity of demand compared to luxury (discretionary) goods or services*".

For the regulated milk price companies, our hypothesis was that revenue risk would pull their asset beta down. As they could not pass on the changes in milk prices, they would bear greater costs in the event of a positive macroeconomic shock. This leads to a lower asset beta.

We agree with UOA that the ELB sample may be picking up entities that are not purely price regulated. This highlights our concern with using this sample as a reference point for the NP's asset beta.

In summary, we consider that our approach of estimating the average asset beta of sub-samples of companies that share characteristics with the NP is an appropriate approach to testing the impact of the price pass-through and commodity exposure on the asset beta. The small variation in the average asset betas of the sub-samples compared to the full sample indicate that the ability to pass-through prices may not have a material impact on the asset beta.

3.1.2. Operational leverages

UOA's view

The sub-samples have higher risk, and the ELBs have similar risk.

UOA considered that the sub-samples will have higher variability in the percentage change in EBIT to the percentage change in revenue (operating leverage) when these companies have no, or imperfect, ability to pass back price risk to suppliers.

UOA saw no reason why the systematic risk exposure to operational leverage for the NP would be substantially different or greater than the relative risk exposure faced by ELBs.

Our view and response

The sub-samples have similar or higher risk and the ELBs' is different or lower.

We stated that the sample would broadly have higher operational leverage, however flexible contracting arrangements may mitigate this. We do not think there is a material difference between our view and UOA's.

Our analysis of the operational risk of the ELBs was that they have a much higher proportion of fixed costs than the NP. While UOA's argument that the NP's operational leverage is low as it can pass through the variances in fixed costs is reasonable, we disagree that the ELBs have as similar a pass-through process. Therefore, we still consider that the ELBs will likely have a different risk profile.

In summary, as other processors, rather than ELBs, should have cost bases that are similar to the NP's, we still consider that these companies are a more appropriate starting point for comparisons.

3.1.3. Asset stranding

UOA's view

The sample companies and ELBs face higher risk.

UOA notes that the Milk Price Manual sets out rules to reduce asset stranding risk, such as reviewing the asset base every four years and removing the plant with the earliest acquisition date first. UOA's view is that the NP has a very low asset stranding risk, however it notes that the NP receives an uplift of 0.15% for asset stranding risk.

With regards to the sample, UOA notes that it is unaware of any companies in the sample that have a 'rule based' manual or regulatory regime that reduces the risk of asset stranding.

Our view and response

The sample has similar risk, while the ELBs have lower risk.

As UOA notes, the NP has an uplift in the WACC to compensate for asset stranding. This reflects that the construction of the NP does include the risk of asset stranding. We note that the Milk Price Manual states that "costs associated with permanently stranded assets should fall on Fonterra".[10] While we cannot be sure that all the companies in the sample would have a similar asset stranding risk profile to the NP, we are confident that they are more likely to have a similar asset stranding to valuation relationship than the ELBs.

As we stated in CEPA (2018), ELBs do have significant protection from asset stranding via the regulatory regime, and we are not aware of an uplift in their risk premium for this. In addition, for example, investors are likely to place a different relative risk assessment on the impact of a 'serious outbreak of "foot and mouth"' on ELBs returns compared to dairy returns. Asset stranding in the electricity industry is more likely with certain types of technical change which would lead to lower network use. It is hard to see how this type of technical change would be correlated with changes in the risk of asset stranding in the dairy industry, or with changes in economic growth. We have seen no consideration of this in Fonterra's submissions.

In addition, we are not clear why a rule that the oldest assets are removed from the asset base first mitigates asset stranding risk.

We find UOA's conclusion that the ELBs face similar <u>but lower</u> risk than the NP difficult to reconcile with the premise that the NP construct should promote contestability.

In summary, we do not see a reason to change our conclusions.

[10] Fonterra (2017a), *Farmgate milk price manual – Part A: Overview*, 1 August 2017, page 10.

3.1.4. Financing risk

UOA's view

The sample companies and ELBs have higher risk.

UOA notes that Fonterra has a higher credit rating than the comparators and points to Fonterra's ability to have all milk payments subordinated to other obligations which lowers their cost of debt and equity. UOA notes that Fonterra has a higher credit rating than the ELBs.

Our view and response

The sample companies have higher risk, the ELBs have lower risk.

There are two points we consider that are important regarding the refinancing risk faced by the NP:

- We agree with the UOA that the NP would have low refinancing risk, as do ELBs. However, what matters is whether changes in refinancing risk for the NP are more closely correlated to changes observed in the samples than for ELBs. We consider that heightened financial risk in the dairy and food industry is likely to affect the NP and therefore affect systematic risk for the NP. The same considerations are unlikely to apply to the relationship between the NP and the electricity industry.
- UOA's reasons for the NP's higher credit rating raise a concern about the practical feasibility of an efficient processor to achieve the same credit rating. Fonterra's ability to subordinate its raw milk payment after other obligations are a result of its ownership structure, in our view another New Zealand processor might struggle to have the same arrangements.

In summary, we do not see a reason to change our conclusions.

3.2. Additional comments (UOA Section 8)

Given the significant overlap between UOA's comments in its Section 8 and those in its Section 7 on capex investment, we cover these together.

UOA's view

UOA argues that the NP has no value reflecting growth opportunities, and there is relatively low uncertainty to its value at the end of the regulatory period. This is the reason for its view that neither industry prospects nor the profile of capital investments are relevant for determining beta.

UOA argues that the NP essentially has no growth value as the growth options are captured by land owners rather than the NP. UOA consider that we did not present any evidence as to why companies in the sample would have similar growth opportunities to the NP.

UOA's view is that investors in the NP will face relatively low uncertainty regarding the value of the NP as the NP has:

- low systematic risk exposure to growth options;
- low risk of asset stranding; and
- low refinancing risk.

UOA disagreed with our interpretation of Lally (2016) statement that the plausibly the biggest source of error in the valuation component is the regulator erring in setting the MPR. UOA considered that Lally's statement was only in relation to the regulator introducing uncertainty to the cost of capital and that Lally had simply not discussed other sources of valuation uncertainty. UOA cite shocks in the risk-free rate as one example of an impact on the valuation.

Our view and response

Investors do place a value on growth opportunities for ELBs and the NP

UOA considers that the NP faces relatively low uncertainty on the value Ve (valuation at the end of the period). This assumption implies that asset beta is determined primarily by the relationship of changes in short term cash flows to changes in market returns. It is this that leads to the conclusion that neither industry prospects nor the profile of capital investments affects the asset beta.

The UOA argument is a theoretical one. It relies on the assumption that the allowed return is constantly set equal to the cost of capital, so that the value at the end of a regulatory period is precisely equal to the value of assets on which returns are calculated (the regulatory asset value) and this also applies to any new investment.

The difficulty with this view, though, is that it is not supported by the empirical evidence. Lally (2016) decomposes asset betas into terms reflecting short term cash flow risk and longer-term risk which will include the value of growth options. The asset beta for revenue-capped regulated businesses (e.g., ELBs) are well above zero. It is implausible that this results entirely from the short-term cash flow risk, and therefore investors do reflect systematic risk associated with growth opportunities, future investment in the value of ELBs. The same would be the case for a practically feasible NP.

UOA (2018) set out a discussion that growth options are "owned" by the farmers. We agree. Farmers have the options to expand their production. However, a practically feasible NP also has the option to expand to meet the additional production from farmers, and if there is value in the expansion will do so. This is the same as the growth of any supply chain: companies in each segment can expand to meet demand growth and create value from that expansion.

The systematic risk of growth options for the NP is likely to be closer to that of the sample than ELBs.

Given that growth options are reflected in the value at the end of a regulatory period, the issue is whether the drivers of growth for the NP are closer to those for the industry comparators than they are to those for ELBs.

UOA notes that we have not proved that the drivers of growth in the sample are closer to the NP's than for ELBs. We do not consider that it is feasible to prove this. However, it is reasonable to consider the growth drivers for the samples and the growth drivers for the NP are similar. In the longer term, the drivers for the industry comparator group are the long-term drivers of demand in the dairy industry and food industry.

We do consider it important that UOA (and Fonterra) do not appear to have provided evidence that the long-term drivers of value are similar to those of ELBs, and further we consider that a little reflection indicates that the drivers of capital investment are really rather different, and that it would be rather surprising for the asset beta component related to long term value to be similar.

UOA also note that shocks to the discount rate may also be a source of valuation risk. We agree, and the question is whether these shocks will affect the NP more similarly to the sample than to ELBs. The impact of changes to discount rates on company values depends on a number of factors including growth rates and the remaining life of existing assets. The NP is likely to be closer to industry comparators on these characteristics than ELBs. We have seen no evidence that suggests that the NP will be more similar to ELBs than the sample.

In summary, the UOA hypothesis is a theoretical one. Empirical evidence indicates that changes in the long-term value of the business is a systematic risk, and industry capex profiles and long-term growth opportunities influence this.

4. ERRATUM

CEPA (2018) report had incorrect values reported in Table 3.4, Table 3.5 and in the text on Page 4. In this section we provide the correct values. We note that the correct values have no impact on the conclusions of the report.

The incorrect values were due to a formula error and one value being pasted in the wrong cell. The error affected the reported average asset betas for the 'commodity exposed' and 'cost pass-through' sub-samples. The tables published in our report dated 28 March 2018 were.

Table 3.4: Asset beta across samples, five-year period to 15 January 2018

Chosen sample	Daily	Weekly	4-weekly
Full sample	0.58	0.50	0.56
Dairy companies	0.58	0.53	0.59
Commodity exposed	0.53	0.49	0.52
Cost pass-through	0.55	0.51	0.54
Regulated milk price	0.57	0.49	0.61
Across all sub-samples	0.56	0.51	0.57

Source: Bloomberg, CEPA analysis

Table 3.5: Asset beta across samples, five-year period to 15 January 2013

Chosen sample	Daily	Weekly	4-weekly
Full sample	0.50	0.45	0.49
Dairy companies	0.46	0.41	0.47
Commodity exposed	0.55	0.52	0.63
Cost pass-through	0.53	0.49	0.59
Regulated milk price	0.30	0.30	0.30
Across all sub-samples	0.51	0.47	0.53

Source: Bloomberg, CEPA analysis

The corrected tables are as follows.

Table 3.4: Asset beta across samples, five-year period to 15 January 2018

Chosen sample	Daily	Weekly	4-weekly
Full sample	0.58	0.50	0.56
Dairy companies	0.58	0.53	0.59
Commodity exposed	0.51	0.48	0.54
Cost pass-through	0.53	0.49	0.52
Regulated milk price	0.57	0.49	0.61

Chosen sample	Daily	Weekly	4-weekly
Across all sub-samples	0.56	0.51	0.57

Source: Bloomberg, CEPA analysis

Table 3.5: Asset beta across samples, five-year period to 15 January 2013

Chosen sample	Daily	Weekly	4-weekly
Full sample	0.50	0.45	0.49
Dairy companies	0.46	0.41	0.47
Commodity exposed	0.54	0.49	0.51
Cost pass-through	0.55	0.52	0.63
Regulated milk price	0.30	0.30	0.30
Across all sub-samples	0.51	0.47	0.53

Source: Bloomberg, CEPA analysis

Page 3, fourth paragraph, original text:

> *For the latest five-year period, to January 2018, the asset betas for the different subgroups are similar, and the weekly average is between 0.49 and 0.59.*

Corrected text:

> *For the latest five-year period, to January 2018, the asset betas for the different subgroups are similar, and the weekly average is between 0.48 and 0.53.*

The upper bound of the range was also incorrectly referencing the 4-weekly estimates.

ANNEX A REFERENCES

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