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# CORSTJENS'S REPORT ON THE PRICE EFFECTS OF INTERNATIONAL RETAIL ALLIANCES

## A review<sup>1</sup>

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### 1 Introduction and summary

- 1.1 We have been asked by AIM to review and assess an INSEAD Working Paper authored by Marcel Corstjens entitled “International Retail Buying Groups: A Force for the Good? The case of AgeCore/EDEKA” (the “Corstjens Report”).<sup>2</sup>
- 1.2 We conclude that the Corstjens Report is flawed and its findings cannot be relied upon. The report suffers from a number of fundamental flaws:
- a. **The Corstjens Report does not compare like with like.** The Corstjens Report does not examine how the retail prices of a given group of products change depending on whether those same products are impacted by AgeCore or not. Instead, it compares the retail prices of two groups of different products produced and sold by different manufacturers. These groups of products differ across multiple dimensions, including different costs, different ingredients, different brands, different formats and packaging, different demand, different competitive position and bargaining power, and different commercial strategies. Because the Corstjens Report does not compare like with like, it is wrong for it to attribute to AgeCore differences in retail prices that it observes between the two different group of products. These price differences can be equally – and more plausibly – explained by the differences across the two different product groups which are not controlled for.
  - b. **The Corstjens Report wrongly assumes that AgeCore is a purchasing alliance that negotiates discounts.** The Corstjens Report starts from the false premise that it is reasonable to expect some level of pass-on because AgeCore operates as a purchasing alliance that negotiates discounts. AgeCore however is not a purchasing alliance and does not negotiate discounts. It enters into service agreements with suppliers under which AgeCore acts as the provider of notional services and AgeCore charges a price for these notional services. Because AgeCore does not negotiate discounts but charges fees for notional services, the premise on which the Corstjens Report is based – that AgeCore can be expected to generate some benefit for consumers – does not hold.
  - c. **The Corstjens Report commits a series of methodological errors.** The Corstjens Report commits a series of related methodological errors that disqualify its analysis. These errors include: a failure to consider other relevant factors that may explain price differences between products impacted by AgeCore and non-impacted products; reliance on explanatory variables, such as sales value, that are impacted by the dependent variable (retail price), which leads to

<sup>1</sup> We acknowledge this note was commissioned by AIM. The views expressed are those of the authors and not necessarily those of AIM or Compass Lexecon.

<sup>2</sup> See Marcel Corstjens, *International Retail Buying Groups: A Force for the Good? The case of AgeCore/EDEKA*, 2022, available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4139152](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4139152).

endogeneity; a failure to conduct genuine robustness checks for the statistical models that it uses; and relying on broad averages that mask variability.

- d. **The Corstjens Report does not find what it claims it finds.** The Corstjens Report claims to find a negative and statistically significant relationship between AgeCore-impacted products and retail prices for most product categories that it examines. But looking at the analysis that the report presents shows that this is not the case: out of the 20 product categories that the report examines, the report finds that for 10 of these categories the retail prices of AgeCore-impacted products is higher than for non-impacted products. By the report's logic, for around half of the reviewed product categories AgeCore would lead to increased retail prices. Even taking the Corstjens Report at face value, the report therefore does not present findings that could serve as a basis for concluding that international alliances such as AgeCore benefit consumers.

## 2 The Corstjens Report

- 2.1 The Corstjens Report's stated objective is to assess whether international retail buying alliances, such as AgeCore, benefit customers by allowing them to share in the benefits of the savings that retailers are said to achieve through these alliances.
- 2.2 To measure the benefits that customers derive from international alliances, the Corstjens Report compares i) the prices of "SKUs"<sup>3</sup> produced by suppliers that have an agreement with AgeCore ("AgeCore-impacted SKUs"),<sup>4</sup> ii) with the prices of allegedly comparable SKUs produced by different suppliers that do not have an agreement with AgeCore ("non-impacted SKUs").
- 2.3 For its analysis, the Corstjens Report uses scanner data on prices paid by customers purchasing at the EDEKA retail chain in Germany for around 138,000 SKUs in 20 food categories over the period 2014–2019.<sup>5</sup>
- 2.4 The Corstjens Report specifies three price models:
- The "base" model explains prices as a function of time (we understand that it is measured on a monthly basis) and whether the SKU is impacted by AgeCore.
  - The "enhanced" model adds to the base model two dummy variables to control for the annual sales value of each SKU ("large", "medium", and "small" sales value, with "small" being the base category). These sales value dummies are not defined precisely.
  - The "advanced" model explains prices as a function of time, sales value (large, medium and small), product category (using 20 different product categories as defined by EDEKA),<sup>6</sup> and whether the product in a particular category is impacted by AgeCore.
- 2.5 The base model finds that AgeCore-impacted SKUs are on average 21% cheaper than non-impacted SKUs.<sup>7</sup> The enhanced model finds that this difference is reduced to 12% once the level

<sup>3</sup> Stock Keeping Unit or SKU is a code that uniquely defines a specific product with a specific brand, packaging and format. The Corstjens Report and this note use the term SKU to refer to a specific product identified by an SKU.

<sup>4</sup> The Corstjens Report refers to "SKUs within the scope of AgeCore". This could mean "all the SKUs of a supplier having signed an agreement with AgeCore" or "those SKUs for which such a supplier has managed to negotiate some services or promotions". We understand that the Corstjens Report refers to the former.

<sup>5</sup> We understand that the prices reflected include any discounts applied to the price paid by the customer.

<sup>6</sup> These are: Alcoholic Beverages; Ambient Food; Bakery; Cheese; Chocolate; Coffee, Tea and Cacao; Confectionary; Dairy and Plant-based Beverages, Delicatessen, Dry Fruit and Vegetables, Frozen Food, Meat and Sausage; Non-alcoholic Beverages; Pet Food, Ready-to-eat and Soups; Snacks; Spices; Spreads and Desserts; Sweet Bakery and Yellow Fats.

<sup>7</sup> We note the Corstjens Report uses an approximation to the estimate of the effects. A logarithmic transformation is required. For example, a coefficient of 0.21 (i.e., the average coefficient of the enhanced model) equals 18.9% ( $=e^{-(0.21)} - 1$ ), which is 2 p.p. less than the 21% claimed by the paper.

of SKU sales is accounted for. The advanced model finds that the difference varies widely by product category (AgeCore-impacted SKUs in Ready-to-eat and Soups are on average 38% cheaper, whereas they are on average 100% more expensive in Alcoholic Beverages). The Corstjens Report states that AgeCore-impacted SKUs are on average 12% cheaper under the advanced model.<sup>8</sup> All these differences are statistically significant.

### 3 Assessment

3.1 In our opinion, the Corstjens Report is flawed and its conclusions cannot be relied upon.

#### The Corstjens Report does not compare like with like

3.2 The Corstjens Report compares (i) EDEKA's retail prices for products supplied by manufacturers that have an agreement with AgeCore with (ii) EDEKA's retail prices for products supplied by manufacturers that have no such agreement. This approach is bound to produce flawed results because the underlying products are differentiated among many dimensions including branding, number of units sold, ingredients, costs, formats, packaging, point of sale, competitive position, bargaining power, consumer demand, and commercial strategy of the manufacturer.

3.3 The Corstjens Report therefore compares apples with pears. The many dimensions across which the two product groups may differ cannot be accounted for by the simple models that the Corstjens Report employs. The Corstjens Report therefore cannot exclude that the retail price differences that it observes are attributable to factors other than the impact of the AgeCore alliance agreement.

3.4 The Corstjens Report claims to apply a version of the Counterfactual Impact Evaluation (CIE) methodology, described in the European Union Science Hub:

*In its simplest form, counterfactual impact evaluation (CIE) is a method of comparison which involves comparing the outcomes of interest of those having benefitted from a policy or programme (the "treated group") with those of a group similar in all respects to the treatment group (the "comparison/control group"), **the only difference being [emphasis added] that the comparison/control group has not been exposed to the policy or programme. The comparison group provides information on "what would have happened to the members subject to the intervention had they not been exposed to it", the counterfactual case.***

3.5 But here coverage by an AgeCore agreement is not the only difference between the treatment and control groups that are being compared. Rather, the Corstjens Report compares the prices of two *different* populations of products from two different sets of merchants and not the effects of adopting a treatment (here imposing an AgeCore agreement) on the *same* population of products. In other words, the Corstjens Report control and treatment groups are not randomly selected from the same population. They are inherently different. Hence, any difference in their prices is likely to reflect their underlying differences rather than the treatment (i.e., whether they are impacted by AgeCore).

3.6 More generally, the Corstjens Report does not compare SKUs that differ only in whether they are manufactured by a supplier which has an agreement with AgeCore or not. Instead, it compares the prices of food and beverage products that differ along multiple dimensions. All these factors, which are bound to have an impact on price, would need to be controlled for, but they are not.

3.7 The Corstjens Report advanced model, for example, is based on the incorrect presumption that, in a counterfactual world in which AgeCore did not exist, the prices of all SKUs within a product category and sold at a given point time with similar sales in EDEKA should be the same. This cannot

<sup>8</sup> See Corstjens Report, p. 19. It is unclear how this average was calculated. The simple average of the differences in all categories is -5%.

be true. Taking for instance the case of Chocolate, we see in Figure 1 (which reproduces Figure 2 in the Corstjens Report) a bundle of products that the Corstjens Report considers “different yet comparable ubiquitous brands”. The Corstjens Report relies on the assumption that these two product baskets should feature the same (or at least similar when controlling for differences in sales value) prices but for the fact that some are impacted by AgeCore and others are not. However, given product differentiation, this is implausible.

**Figure 1: “Comparable SKUs” inside and outside of the buying group, according to Corstjens Report**



Source: Corstjens Report Figure 2.

- 3.8 The Corstjens Report acknowledges this limitation and states that “study results must be considered within the context of this methodological shortfall”.<sup>9</sup> We consider this methodological shortfall makes the study’s conclusions fundamentally unreliable.

**The Corstjens Report mistakenly assumes that AgeCore is a purchasing alliance that negotiates discounts**

- 3.9 The Corstjens Report starts from the false presumption that it is reasonable to expect some level of pass-on because AgeCore operates as a purchasing alliance that negotiates discounts on purchases that then might be shared in form of retail price reductions. AgeCore however is not a purchasing alliance. AgeCore does not purchase products from suppliers. Nor does it negotiate the terms of purchases. Rather, AgeCore enters into service agreements with suppliers under which AgeCore acts as the provider of notional services to suppliers and AgeCore charges a price for these notional services. Under these arrangements, AgeCore thus acts as a seller of services and suppliers act as purchasers of these services.

- 3.10 The Corstjens Report is therefore wrong when it assimilates AgeCore’s fees to discounts (i.e., marginal cost reductions).

- 3.11 There are two distinct types of international retail alliances:
- a. International alliances with joint purchasing functions similar to (national) retail alliances. These European purchasing organisations tend to focus on the joint acquisition of private label goods, but some may serve for the joint purchasing of branded goods. The main examples of European-level purchasing organisations are AMS, which serves as a purchase vehicle for private label

<sup>9</sup> See Corstjens Report, p.12.

products, and Eurelec, which is a purchase vehicle of REWE and E.Leclerc for branded products.

b. International alliances that do not negotiate the purchase terms applicable to its retailer members but levy fees for notional services that they provide. These “Gatekeeper ERAs”,<sup>10</sup> of which AgeCore is a prominent example, negotiate so-called “on-top agreements” with international suppliers. They demand the payment of fees as a price for notional services that they render. The negotiations over these service agreements do not replace the bilateral negotiations for the purchase of suppliers’ goods at the individual retailer level. Instead, they add a layer of negotiation on top of the bilateral supplier-retailer negotiations.

3.12 The Corstjens Report characterises AgeCore as an alliance that purchases products for its retailer members. The Corstjens Report explains that such purchasing alliances may attain benefits in terms of economies of scale in the purchasing function of retailers as well as lower product prices through enhanced bargaining. The Corstjens Report states that “it is a reasonable hypothesis that a retailer like EDEKA will pass on, at least in part, lower buying prices obtained via AgeCore, to its shoppers<sup>11</sup>.” However, AgeCore does not purchase products from suppliers. Nor does it negotiate the terms of purchases of retailers. Rather, it merely negotiates on-top agreements. Suppliers pay fees to the alliance that are structured as prices for notional services rendered by the alliance.

3.13 The efficiencies of purchasing alliances in terms of a more efficient purchasing function are not present in the case of Gatekeeper alliances because they are not involved in the purchase of goods. Further, the potential for pass-on of the fees levied by a Gatekeeper alliance is not as straightforward as a reduction in the wholesale prices secured by a purchasing alliance because the fees are structured as a price for services rendered by the alliance and paid to the alliance. The evidence we have reviewed suggests that pricing managers at the retailers are not made aware of these fees and are not given incentives to pass them on.

3.14 Thus, the Corstjens Report’s presumption that it is reasonable to expect a certain pass-on of the value extracted by international purchasing alliances to consumers in the form of lower prices does not hold when dealing with Gatekeeper alliances, such as AgeCore.

#### The Corstjens Report models are flawed as a matter of econometrics:

3.15 In addition to the foundational problems set out above, the Corstjens Report suffers from a series of methodological problems and limitations. Given these methodological deficiencies, the Corstjens Report does not show, and cannot show, that the access fees negotiated by AgeCore are passed on to consumers in the form of lower retail prices.

#### Omitted variables

3.16 We focus our methodological discussion on the advanced model, the more complete specification used in the Corstjens Report. The Corstjens Report recognises that the other two models omit relevant explanatory variables and, therefore, their results must be discarded as unreliable from the outset.

3.17 However, the advanced model suffers from the same basic deficiency as the two other models because, like these two other models, it controls only for a very limited number of possible factors that may cause the prices of AgeCore-impacted and non-impacted SKUs to be different. In a given year, for each SKU in a given product category, the so-called advanced model only accounts for

<sup>10</sup> The term “ERAs” refers to European Retail Alliances.

<sup>11</sup> See Corstjens Report, p. 10.

sales value and whether the product is impacted by AgeCore. Given that there are on average 6,900 differentiated SKUs per product category, these limited controls are obviously insufficient.

- 3.18 We would expect the Corstjens Report to control, among other features, for:
- a. *The product subcategory.* For instance, for non-alcoholic beverages EDEKA has seven different subcategories: drinks for babies and toddlers; iced tea; carbonated soft drinks and lemonades; juices; syrups; sports drinks and water. It is evident, for example, that the price of a SKU in the juice category is likely very different than in the water category or in the drinks for babies and toddlers category.
  - b. *Product units, size or weight:* a bottle of 2 litres of a carbonated drink will be more expensive than a bottle of 75 cl of a comparable carbonated drink. In the same way, *ceteris paribus*, a pack containing 6 bottles will be more expensive than one containing 4 bottles.
  - c. *Brand:* certain brands are preferred by customers to others. Suppliers invest huge amounts in developing and promoting their brands, so it stands to reason they are important in determining prices. The identification of the effect of being impacted by AgeCore and the effect of brands cannot be separately identified using the Corstjens Report modelling approach (as AgeCore-impacted products identify a particular set of brands). This implies that alternative approaches must be used, not that the brand effect can be ignored.
  - d. *Bargaining power:* certain manufacturers have higher bargaining power than others. *Ceteris paribus*, a supplier with higher bargaining power is more likely to sell their portfolio of products at higher prices to retailers (which in turn will likely result in higher retail prices). Thus, differences in bargaining power between AgeCore-impacted and non-impacted suppliers will cause differences in average retail prices which are unrelated to AgeCore coverage. The difference between the bargaining power of AgeCore-impacted and non-impacted suppliers is unclear. Suppliers impacted by AgeCore may have some strong brands but they will typically also have a range of weaker brands, and as such may be in a weaker negotiation position vis-à-vis retailers, compared to smaller, non-impacted suppliers with a limited portfolio of strong brands. Some non-impacted suppliers such as Ferrero or Lindt (discussed in the Corstjens Report) are focused on very strong brands. Indeed, it may be the case the non-impacted suppliers are not impacted by AgeCore because they have been able to resist attempts by alliances such as AgeCore to extract the payment of access fees precisely because of their strong bargaining power vis a vis retailers.
  - e. *Supplier pricing strategies:* Different suppliers may have different pricing strategies for seemingly similar products. High-volume manufacturers, which offer a wide range of products, may opt for a lower-price strategy, competing for share and scale, while niche manufacturers with narrower and lower volume portfolios may be pursuing high-price and low-volume strategies for premium products in the niche they cover. It may be the case that suppliers impacted by AgeCore (and similar alliances) are typically high-volume manufacturers which offer a wide range of products, while suppliers not impacted by alliances may have narrower and lower volume portfolios. These two categories of suppliers may be pursuing different pricing strategies. In this case, the effect of being impacted by AgeCore and the effect of pricing strategies cannot be separately identified using the Corstjens Report modelling. This would imply that an alternative approach must be used, not that the effect of pricing strategies can be ignored.
  - f. *Pricing strategies of EDEKA:* The study implies that an SKU with a lower wholesale price will necessarily have a lower retail price. But this is not necessarily the case as retailers define their retail prices based on many other factors beyond wholesale prices. Such factors include the level of competition the retailer faces in a particular SKU from rival retailers; the supermarket

where the SKU is sold (prices can vary significantly between store locations), the placement in the supermarket (an SKU that has more visible placement may have a pricing advantage over one with less visible placement), and commercial strategies to attract visits (a retailer may, for example, opt to forgo margin and price a product with a strong brand low to attract consumers to its shops).

- 3.19 The R2 coefficient (which measures how well a statistical model explains variation in the dependent variable) of the Corstjens Report's advanced model indicates that 67% of the variance in prices in the model is left unexplained. This would not be a problem *per se*, but since some of the omitted variables above, such as brand, bargaining power or product segmentation are likely to be correlated with the AgeCore indicator, there is a very high likelihood of the estimated effect of the AgeCore indicator being biased. In fact, the Corstjens Report demonstrates how adding a few additional controls has a dramatic impact on the estimated effect. It is likely that adding additional controls would lead to additional substantial changes in the results.

### **Endogeneity**

- 3.20 For the estimation of a price model like the ones used in the Corstjens Report to produce reliable results, it must be the case that the explanatory variables affect the dependent variable (here the price of the SKU), but that the dependent variable (the price) does not affect the explanatory variables. If the price affects the explanatory variables, this generates a problem referred to as "simultaneity", which is a source of "endogeneity", and causes the results of the model to be unreliable. In simple terms, endogeneity means that an observed correlation between the explanatory and dependent variable may be attributable to the dependent variable influencing the explanatory variable, rather than the other way round. One of the few explanatory variables in the Corstjens Report price models, the sales level, is likely to create a problem of endogeneity. This is because, according to the Corstjens Report, high sales SKUs need to be priced lower as these are key to attract customers.<sup>12</sup> Thus, according to the Corstjens Report, a higher sales value indicator is associated with lower prices, all other things being equal. However, a lower price may also cause the sales value to increase (as consumers will demand more of the product).
- 3.21 Thus, although it is unclear how the Corstjens Report constructs the sales value variable, the model may face a problem of endogeneity, and this undermines the reliability of the results of the enhanced and advanced models.

### **Issues with transparency and robustness**

- 3.22 The Corstjens Report does not explain how one of its key variables is defined (sales value) and why three levels of sales levels are used ("small", "medium" and "large") instead of, for instance, 2 or 4 levels.<sup>13</sup>
- 3.23 Further, the Corstjens Report does not explain why it excludes SKUs that are on sale ("promotions"). Promotions can vary across SKUs and suppliers and may represent a significant share of sales. The Corstjens Report does also not explain why it excludes certain non-specified non-standard product categories. Finally, the Corstjens Report does not explain what effects all these exclusions have on the results.

<sup>12</sup> See Corstjens Report, p.18.

<sup>13</sup> The Corstjens Report also lacks some basic descriptive statistics that would be useful to analyse reliability of data, including how price levels and the number of SKUs in each product category evolve over time.

- 3.24 The Corstjens Report states that its results are “robust when subject to stress testing” with respect to the sales level variable and the configuration of the product categories.<sup>14</sup> However, the robustness checks performed are not informative. Sensitivities are meant to show how the results change when there are meaningful and reasonable changes to the model’s hypothesis. With respect to the sales value variable, the only robustness analysis the Corstjens Report performs involves estimating the model without the sales dummy variables. However, as the Corstjens Report acknowledges, when this variable is excluded, the AgeCore effect variable overestimates the effect of AgeCore).<sup>15</sup> Thus, excluding the sales level variable is not a reasonable change to the model and not a meaningful robustness analysis. A meaningful robustness analysis, for example, would present results under different specifications of the sales value variable (e.g., 2 or 4 sales levels instead of 3).
- 3.25 With respect to the product category control, the robustness test performed in the Corstjens Report involves excluding certain product categories. However, as the AgeCore effect is estimated separately for each product category, the elimination of a product category predictably has little impact on the effects estimated for the other product categories. This is not a meaningful robustness test. A more meaningful robustness test would involve using a more granular (detailed) product characterisation.
- 3.26 Another, robustness analysis, which is not provided, but which would have been informative, would involve estimating the AgeCore effects separately for each year. Indeed, the fees charged by AgeCore have increased over time, so if AgeCore has had an effect on final consumer prices, this is likely to have changed over time. But the report does not examine how – if at all – retail prices react to changes in AgeCore fees over time.
- 3.27 Further, the Corstjens Report does not provide the standard statistical indicators that serve to assess the reliability of an estimation. In this respect the Corstjens Report fails to comply with, for example, the European Commission’s *Best practices for the submission of economic evidence*.

### **Averaging effects**

- 3.28 The Corstjens Report estimates an alleged average effect of AgeCore membership on the price of different SKUs. In this analysis, it gives SKUs with low volume of sales the same weight, or importance, as more relevant ones. However, a supplier may have sales concentrated on a few SKUs and a simple average of prices will give equal weight to products which have negligible sales and large sales. As a result, the average effect on SKU prices estimated by the Corstjens Report may not be informative of the effects on the price level of the most relevant SKUs of a supplier.<sup>16</sup>

### **The Corstjens Report’s analysis does not find what the report claims it finds**

- 3.29 The Corstjens Report claims to find a negative and statistically significant relationship between AgeCore-impacted products and prices for most product categories that it examines, though for some the relationship is not significant and for others it is positive and statistically significant.
- 3.30 Given the large number of observations, however, it is not surprising that all relationships are statistically significant. With very large samples, all coefficients tend to become significant.<sup>17</sup>

<sup>14</sup> See Corstjens Report, p 27.

<sup>15</sup> See Corstjens Report, p.18.

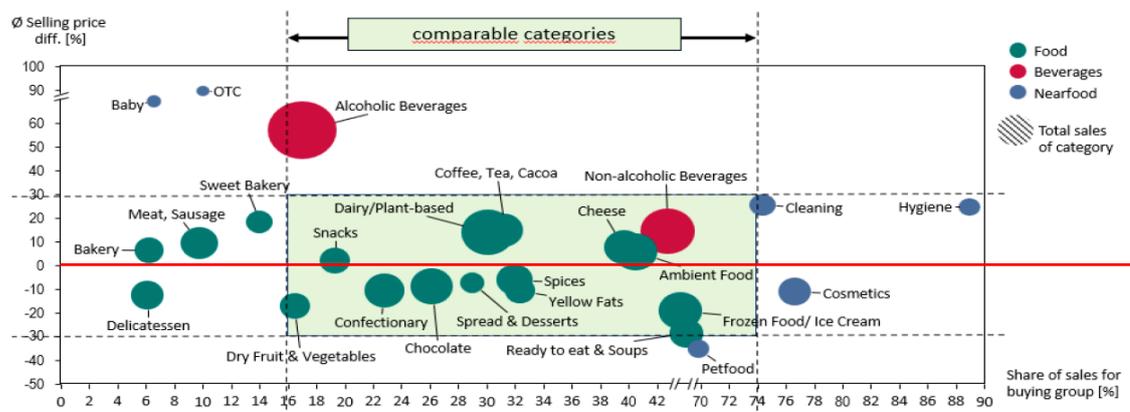
<sup>16</sup> The Corstjens Report is also not transparent on how many unique SKUs are observed across all 6 years in the data.

<sup>17</sup> See Mingfeng Lin, Henry C. Lucas Jr, Galit Shmueli, *Too Big to Fail: Large Samples and the p-Value Problem*, 2013, available at [https://www.researchgate.net/publication/270504262\\_Too\\_Big\\_to\\_Fail\\_Large\\_Samples\\_and\\_the\\_p-Value\\_Problem](https://www.researchgate.net/publication/270504262_Too_Big_to_Fail_Large_Samples_and_the_p-Value_Problem).

However, this says nothing about causality. In simple terms, given the characteristics of the database and the paucity of the estimated models, the fact that the estimates are statistically significant, says nothing about their reliability.

3.31 Crucially, the Corstjens Report’s analysis does not support its conclusion that AgeCore-impacted SKUs are cheaper. The Corstjens Report summarises its analysis in Figure 10.<sup>18</sup> Figure 2 below reproduces Figure 10 from the Corstjens Report. It depicts average price differences between AgeCore-impacted and non-impacted SKUs by product category. We have added a red line to highlight the zero on the vertical axis. For all product categories above this red line, AgeCore-impacted SKUs have a higher price than non-impacted SKUs. As can be seen, roughly 10 out of 20 categories are above the line.<sup>19,20</sup> There is therefore no basis for claiming that the Corstjens Report found a negative relationship between AgeCore-impacted products and retail prices for most products.

**Figure 2: Matching ‘in-buying group’ and ‘not in-buying group’, from Corstjens Report**



Source: Corstjens Report, Figure 10.

3.32 Finally, the magnitude of the effects reported by the Corstjens Report are inconsistent with the magnitude of the fees charged by AgeCore. These fees amount to around 5% of retail prices. If there is pass-on to retail prices, we would expect to see discounts between 0% and 5%, where 0% would be the case if all the benefits from AgeCore are kept by retailers (in this case, EDEKA) and 5% if all the benefits are passed on to consumers (EDEKA would be indifferent between being part of AgeCore or not).

3.33 The Corstjens Report, however, finds that the average effect is a discount of 12%. This would imply a pass-through factor much larger than 100%. Pass-on rates greater than 100% are possible but not common. Such a large pass-on rate is implausible in the case at hand, since:

<sup>18</sup> The Corstjens Report model controls for sales volume while Figure 10 of the Corstjens Report does not. However, this cannot explain the effect as according to Corstjens Report controlling for sales volume reduces the negative difference in prices (i.e., reduces AgeCore-impacted prices relative to non-impacted prices).

<sup>19</sup> These 10 categories are: Bakery; Meat and Sausage; Sweet Bakery; Alcoholic Beverages; Snacks; Dairy/Plant-Based; Coffee, Tea and Cocoa; Cheese; Ambient Food; and Non-alcoholic Beverages. Also, the categories Baby, OTC, Cleaning and Hygiene are above 0, but these categories are arbitrarily excluded from the analysis reported in the Corstjens Report.

<sup>20</sup> The Corstjens Report excludes from all analyses in the report the following categories: Baby, OTC, Cleaning, Cosmetics and Hygiene (i.e., Figures 7-9 and 13). The Corstjens Report does not explain why these categories are not included in the analysis presented. Furthermore, in the sensitivity analysis of Figure 13, five categories that are “outside the matching zone”, according to Corstjens Report, are excluded. The matching zone is delimited by the average price difference between AgeCore-impacted and non-impacted SKUs in the category (between -30% and +30%) and the share of AgeCore category sales (between 15% and 70%), according to Figure 10. According to this criteria, Pet Food should also be excluded (as the price difference is lower than -30%), but the Corstjens Report arbitrarily includes it in the analysis of Figure 13 without any explanation.

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- a. First, it is unlikely that access fees are taken into account by alliance members when setting prices. Access fees are negotiated with the Gatekeeper alliances. Unless retailers' pricing managers are informed of these access fees and instructed to consider them when setting their retail prices, they will not factor these in retail price calculations. This is even more unlikely in the case of EDEKA, given that it has a large share (close to 50%)<sup>21</sup> of independently owned associated stores, which work as franchises (or similar).
- b. Second, even assuming retail stores took access fees into account when setting their retail prices, there would be other reasons why the pass-through rate is likely to be small:
- i. EDEKA is the only member of AgeCore in Germany. This means that any change in access fees would only affect the costs of a single retailer in that country. The economic literature shows that idiosyncratic cost changes of the sort at issue here are passed on to a much lesser extent than cost changes affecting all competing firms.<sup>22</sup>
  - ii. AgeCore negotiates with suppliers of branded goods that are often category leaders in their respective segments. Empirical results for the US grocery market suggest that pass-through is greater for private goods (produced for the retailer) than for branded goods and, in addition, that the pass-through rate is lower for branded goods with high market shares.<sup>23</sup>

<sup>21</sup> EDEKA Group company report, 2019, p.3, available at [https://verbund.edeka/verbund/presse/mediathek/edeka-group\\_company-report-2019.pdf](https://verbund.edeka/verbund/presse/mediathek/edeka-group_company-report-2019.pdf).

<sup>22</sup> See RBB Economics, *Cost Pass-through: Theory, Measurement, and Potential Policy Implications*, Report prepared for the Office of Fair Trading, February 2014, available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/320912/Cost\\_Pass-Through\\_Report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/320912/Cost_Pass-Through_Report.pdf)

<sup>23</sup> See Gee Hee Hong and Nicholas Li, *Market Structure and Cost Pass-Through in Retail*, Bank of Canada Working Paper 2013-5, March 2015, available at <https://www.banqueducanada.ca/wp-content/uploads/2013/03/wp2013-05.pdf>