



## **Study on territorial supply constraints in the EU retail sector: A critical review**

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## Executive Summary

Following its Communication on a “European retail sector fit for the 21<sup>st</sup> century” of April 2018, the European Commission published in November 2020 a “Study on territorial supply constraints in the EU retail sector” (the Study), which was prepared by Valdani Vicari & Associati and London Economics at the request of Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW). The Study assumes that Territorial Supply Constraints (“TSCs”) are “*barriers imposed by private operators (suppliers) in the supply chain, which can affect retailers or wholesalers*” and “*may impede or limit the retailers’ or wholesalers’ ability to source goods in other EU countries than the one they are based in, and/or prevent them from distributing (i.e. reselling) goods to other EU countries than the one in which they are based.*”<sup>1</sup> It purports to show not only that TSCs or “TSC-related practices” are used widely by manufacturers in the European retail sector, but also that consumers are harmed by them.

On behalf of the European Brands Association (AIM), we have critically reviewed the Study and found that it suffers from fundamental flaws in its information basis (starting with the definition of TSCs) and in its analysis of the prevalence and the impact of TSCs on consumers. For these reasons, its results are unreliable, and no policy conclusion can be drawn from them.

To begin with, when attempting to define (and then apply) the notion of TSCs, the Study makes no serious effort to exclude from their scope manufacturers’ benign commercial practices that may simply be a natural response to various factors falling outside their control, such as heterogeneous consumer preferences, manufacturing and trade costs, and national labelling, packaging, and recycling regulations. The Study also does not appear to recognise the brand manufacturers’ commercial freedom and discretion to organise their business in the way that they deem to be appropriate.

On the contrary, the Study further expands the already bloated range of manufacturer practices under scrutiny by adding to alleged TSCs what it calls “TSC-related practices”, which are practices, such as the differentiation of products in terms of content/composition or packaging, that, while not constituting TSCs in themselves, may – so the Study claims – make TSCs possible.

Having failed to establish a solid definitional foundation for TSCs, it is not surprising that the Study finds that “*actual evidence on TSCs [...] is far from conclusive*”<sup>2</sup> and “*no hard or documentary evidence [on TSCs] is available*”.<sup>3</sup> Nor is the survey and interview evidence presented in the Study any more insightful.

Indeed, in addition to neglecting the possibly justifiable reasons for the observed manufacturer practices, the presented evidence is not representative of the EU retail sector as a whole and focuses instead – by design or non-response – on countries, product categories and customers that overstate exposure to alleged TSCs. Indeed, the Study itself appears to recognise this

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<sup>1</sup> See the Study, p. 19f.

<sup>2</sup> See the Study, p. 44.

<sup>3</sup> See the Study, p. 107.

weakness when it states that “*the prevalence of TSCs is more limited than what the survey and interview results suggest.*”<sup>4</sup>

The Study’s analysis of the impact of TSCs on prices and consumer expenditures is equally undermined by data problems, as well as conceptual and methodological flaws. Its fundamental conceptual flaw consists in turning what should have been a key objective of the analysis (namely, to investigate how and to what extent alleged TSCs may influence wholesale prices) into the maintained assumption that a given part of the variation in wholesale prices observed across Member States is due to the existence of TSCs. This assumption ignores the vast range of factors, including local cost and demand conditions and bespoke bilateral commercial negotiations between manufacturers and retailers, which lead to cross-country differences in wholesale prices. To see how untenable this assumption is, and ultimately how little the observed variation in retail prices may have to do with TSCs, it is sufficient to note that the Study documents the very same cross-country retail price patterns for both branded manufacturers’ products and retailers’ private label products. Now, private labels are fully under the control of retailers, meaning that their cross-country retail price dispersion cannot possibly be attributed to the existence of TSCs.

Evading the key question to investigate, the analysis then contents itself with the more modest objective of exploring the extent to which wholesale prices are passed on into retail prices. If there is no or limited passing-on of wholesale prices into retail prices, then TSCs will likewise have no or limited effect on consumers. As a result, even if TSCs were shown to exist, an effect of TSCs on consumers could not be simply assumed.

Even this exploration of the extent of the passing-on of wholesale into retail prices, however, is unsatisfactory, as it is marred by an array of serious data and methodological problems. The Study’s description of its data and methodology lacks clarity and consistency. Despite the resulting obstacles to fully replicate the Study’s analysis, four main issues can be identified in its empirical implementation.

- First, the econometric analysis uses data that suffer from a poor coverage of products and Member States. The so-called “product-level analysis” appears to be based on the prices of only a few dozen individual products, most of which are observed in only two distinct Member States at a time. Because it is self-evident that results would change considerably if the analysis had been conducted on a comprehensive account of products in all Member States, the Study’s analysis cannot reasonably inform any policy decisions.
- Second, there is a massive discrepancy in the coverage of the retail and wholesale price data. Indeed, while the retail data cover market-level outcomes, the wholesale data cover only up to five retailers, thereby greatly exaggerating their potential role in explaining market-wide phenomena.
- Third, both the construction and interpretation of the variables used to capture wholesale prices in the econometric analysis are inconsistent and misleading. By confusing the concepts of pass-through elasticity and pass-through rate, the Study mistakenly concludes that its results are in line with the results of the cited economic literature whereas they wrongly yield implausibly large figures, which are much larger than in the extant economic literature.

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<sup>4</sup> See the Study, p. 102, fn. 146.

- Fourth, the level of aggregation in the Study’s data cannot accurately account for the impact of retail market competition on prices.

On this basis, the Study’s estimates of the impact of TSCs on retail prices are arbitrary and cannot be used to derive the impact of TSCs on consumer expenditures. In particular, the Study takes its estimate of the impact of TSCs on retail prices and multiplies it by a measure of consumer expenditures in the Member States and for the product groups included in its dataset to derive a measure of the consumer savings that the removal of TSCs would generate.

In doing so, the Study effectively assumes that, after the removal of TSCs, wholesale prices would collapse to the level of the Member State exhibiting the lowest wholesale prices. However, this assumption is in sharp contrast with both economic theory and common sense: if a low-price Member State started to experience an increase in demand due to customers redirecting their purchases, prices in that Member State would increase. This assumption is also bound to grossly exaggerate any consumer savings by overstating the savings of consumers located in high-price Member States and ignoring the higher expenditures of consumers located in low-price Member States.

The Study’s main result is that the removal of TSCs could lead to consumer savings of €14.1bn (or 3.5%) on their purchases of “bread and cereals”, “other food”, “alcoholic beverages” and “non-alcoholic beverages” in 16 Member States for which the Study’s authors had retailer purchase price information.<sup>5</sup> However, this baseline estimate is subject to considerable uncertainty given the very wide 90% confidence interval preventing the Study from ruling out that such savings may account for as little as 3.5% (€0.5bn) of the mid-point estimate. Indeed, the consumer savings are so imprecisely estimated that, even if one ignored all the shortcomings and flaws in arriving at the final estimate, it would clearly not be possible to draw any reliable conclusions about the effects of eliminating TSCs given such considerable degree of uncertainty.

This estimate must be dismissed in any event because, to derive it the Study (i) erroneously assumes that, after the removal of TSCs, wholesale prices would collapse to the level of the Member State exhibiting the lowest wholesale price, (ii) then takes this erroneous estimate of counterfactual wholesale prices and multiplies it with an erroneously estimated pass-on elasticity, leading to an erroneous estimate of counterfactual retail prices, and (iii) finally multiplies the erroneous estimate of counterfactual retail prices by total consumer spending. The Study’s main result is therefore based entirely on a combination of unrealistic assumptions and erroneous estimations. Such an approach necessarily yields an incorrect result.

For all these reasons, we conclude that the Study suffers from fundamental flaws in its conceptual design, information basis and empirical methodology to analyse the prevalence and impact of alleged TSCs. The results that the Study arrives at are therefore unreliable and no policy conclusion should be drawn from them.

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<sup>5</sup> See the Study, p. 89f.

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## 1. Introduction

- (1) Following its Communication on a “European retail sector fit for the 21<sup>st</sup> century” of April 2018,<sup>6</sup> the European Commission published in November 2020 a “Study on territorial supply constraints in the EU retail sector: Final report” (the Study), which was prepared by Valdani Vicari & Associati and London Economics. The Study assumes that Territorial Supply Constraints (“TSCs”) are restrictions that are imposed by suppliers on wholesalers and retailers to limit, without a valid justification, their ability to source products in the Member State of their choice. It purports to show not only that TSCs or “TSC-related practices” are used widely by manufacturers in the European retail sector, but also that consumers are harmed by them.
- (2) We have been asked by the European Brands Association (AIM) to critically review the Study, including its methodology, empirical basis, and conclusions on consumer harm. To do so, we have relied on the economic and econometric academic literature on differential pricing, existing reports on TSCs, and input from AIM and its members, which we gratefully acknowledge.
- (3) We find that the Study’s supposed findings are highly inaccurate and misleading. Absent a clear definition of what behaviours constitute TSCs, the Study relies entirely on the perceptions of a limited number of mainly large, internationally active retailers to allege the existence and prevalence of TSCs. The Study itself acknowledges that the evidence that it provides on the existence of TSCs is far from conclusive, and that some of the identified practices may be benign, standard practices. However, the Study fails to bear these limitations in mind in its subsequent analysis and conclusions.
- (4) Furthermore, the Study’s analysis is unsuitable for assessing the effects of alleged TSCs on retail prices as a matter of principle since it assumes a relationship between TSCs and wholesale prices in the first place rather than investigating it. In addition, the Study rests on very poor and incomplete data, from which it is impossible to draw reliable conclusions that hold for the consumer goods industry in the European Union as a whole.
- (5) Finally, the Study’s claimed consumer savings from removing alleged TSCs of €14.1bn, which is subject to a large degree of uncertainty, rests on the erroneous assumption that, in the absence of TSCs, brand manufacturers would adjust prices in high-price countries only, leaving them unchanged in the low-price countries. As the economic literature overwhelmingly shows, however, this is unlikely to be the case. Indeed, the Study’s calculation of consumer harm exaggerates possible price decreases in the high-price countries and altogether ignores possible price increases in the low-price countries. Thus, the Study is bound to find significant

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<sup>6</sup> See European Commission (2018b).



consumer harm even if, in reality, there was none. The Study has thereby prejudged the outcome of its analysis instead of following a scientific, open-ended approach.

- (6) Overall, the Study's results are undermined by the numerous and severe flaws in both its factual basis and its analysis of the prevalence and possible consumer impact of TSCs. The Study therefore cannot constitute the basis for any evidence-based policy discussion of TSCs.
- (7) Our report is structured as follows. In Section 2, we explain some of the factual background on the European wholesale and retail markets for consumer goods. In Section 3, we discuss the notion of TSCs. In Section 4, we build on the preceding two sections to critically assess the evidence presented in the Study on the prevalence of TSCs. In Section 5, we similarly assess the evidence presented in the Study on the effects of TSCs on prices and consumer expenditures. In Section 6, we conclude.

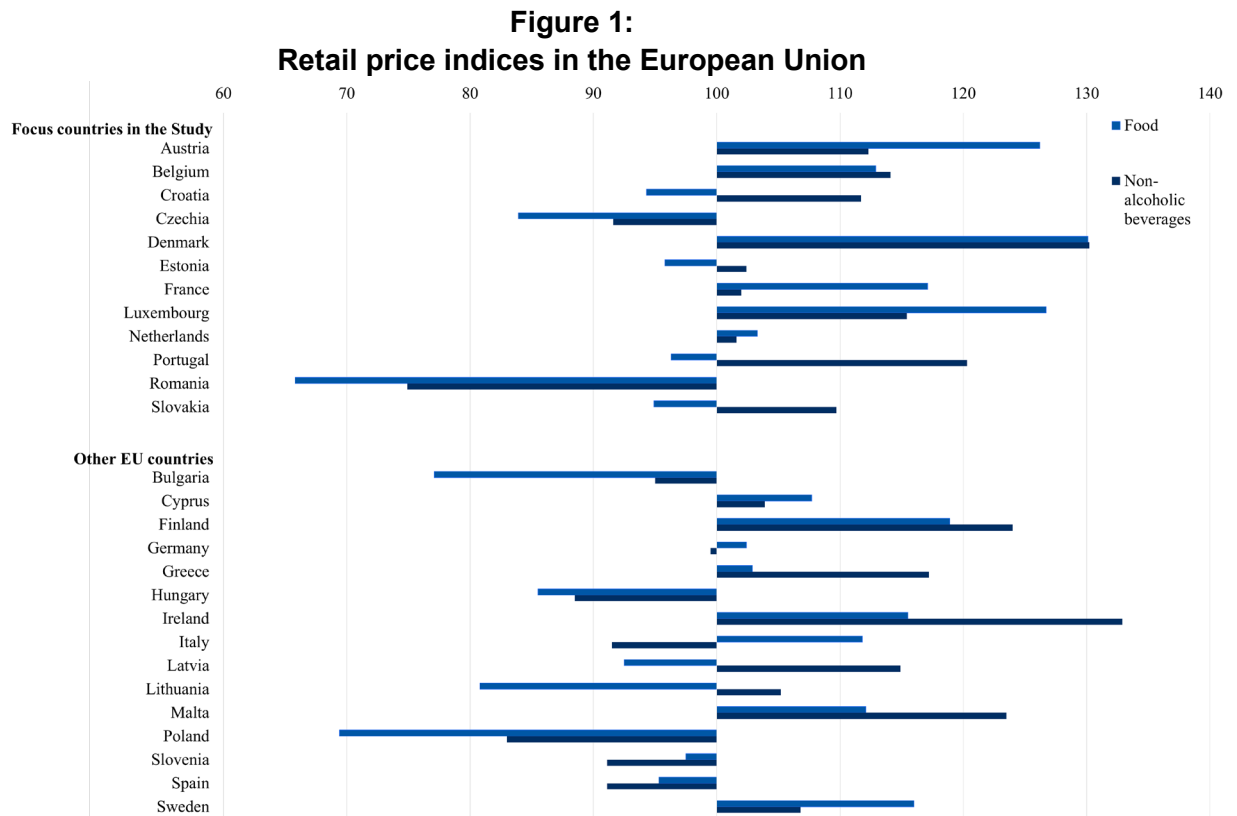
## 2. Wholesale and retail markets for consumer goods

- (8) Before analysing the existence, prevalence, and possible effects of TSCs, it is necessary to understand how the supply chain for consumer goods works in the EU. This will provide the necessary background to appreciate that price differences across Member States may be the result of a multitude of different factors. It will also help in understanding the multiple constraints that suppliers are subject to.
- (9) The Study instead implicitly suggests that there are some differences in prices between Member States for which the presence of TSCs can be an explanation. The Study claims that the “*quantitative analysis of retail prices shows that the wide range of prices charged across the EU by manufacturers to retailers for the purchase of specific branded products cannot be fully explained by the factors which are typically applied to explain price differences, such as different taxation regimes (including VAT), labour costs, raw material costs, production costs (e.g., related to volumes/economies of scale), pricing of logistics.*”<sup>7</sup> As we will show in this section, however, the list of factors in the Study is by no means exhaustive. There are many other factors that influence retail and wholesale prices across Member States and may account for the observed cross-country variation in retail prices.
- (10) The Study purports to apply to the European Union’s retail industry, which covers a large variety of products and all Member States. In practice, however, it focuses only on a subset of Member States and a small subset of consumer goods: breakfast cereals, confectionery (chocolate bars & tablets), dairy (yoghurts & milk), household care (washing detergents, washing-up liquids), personal care (shampoos & soaps), and soft drinks (cola carbonates & non-cola carbonates). In our overview of the supply chain for consumer goods, we thus focus on these product categories.
- (11) As one would expect, retail prices for consumer goods in the European Union vary substantially – both across product categories and across Member States. For example, Figure 1 below shows retail price indices for food and non-alcoholic beverages in the European Union. In the Study it is claimed – without providing any specific evidence – that TSCs can play a significant role in explaining such variation.<sup>8</sup> However, this assumption remains unproven by the Study.

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<sup>7</sup> See the Study, p. 104. For a detailed critique of the Study’s quantitative analysis, see Section 5.

<sup>8</sup> See the Study, p. 40, 102 and 104. The Study does refer to earlier research, but as we demonstrate in Section 3.4, the Study does not accurately reflect the relevance and validity of this prior research. To the extent that the Study references its own quantitative analysis, see Section 5. In any case, as the following overview of some possible influences on wholesale (and retail) prices will show, there is a large set of factors that existing research, including the Study, has not taken into account.



Source: NERA analysis based on 2019 data from Eurostat.

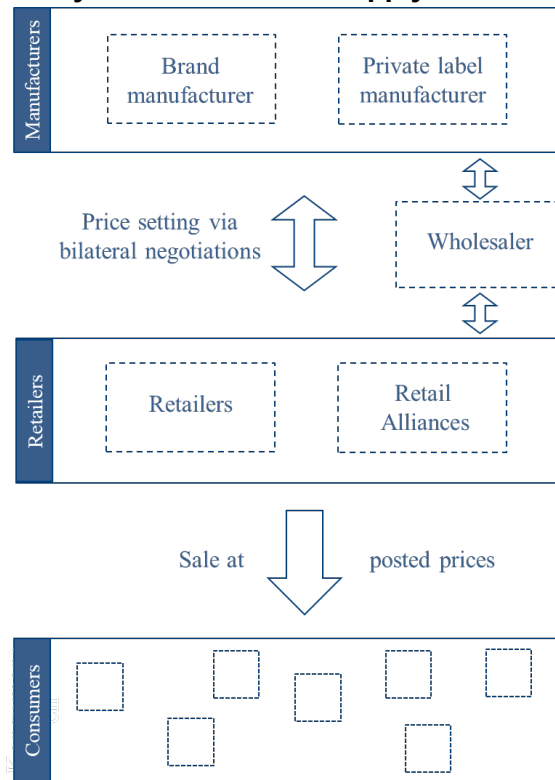
- (12) In this section, we demonstrate that a great variety of factors can explain variation in retail prices across Member States. It may well be possible and likely that these factors together explain the entire variation in retail prices across Member States. We first explain the process by which prices between brand manufacturers and wholesalers or retailers are determined (Section 2.1) and then discuss retailers' seller and buyer power (Section 2.2). We subsequently turn to factors that may contribute to differences in wholesale and/or retail prices across Member States: consumer preferences and branding (Section 2.3), regulation (Section 2.4) as well as production and transport costs (Section 2.5). Finally, the conclusions are summarised (Section 2.6).

## 2.1. Bargaining between retailers, wholesalers, and brand manufacturers

- (13) The typical industry structure for the supply of consumer goods has manufacturers at the upstream level and retailers at the downstream level. Retailers and manufacturers may interact with each other directly, or they may be linked indirectly through wholesalers.<sup>9</sup> While the ultimate industry configuration will depend on the country and the product category, an indicative industry structure is shown in the following Figure 2.

<sup>9</sup> Private label manufacturers typically sell to the retailers directly.

**Figure 2:**  
**Vertical industry structure for the supply of consumer goods**

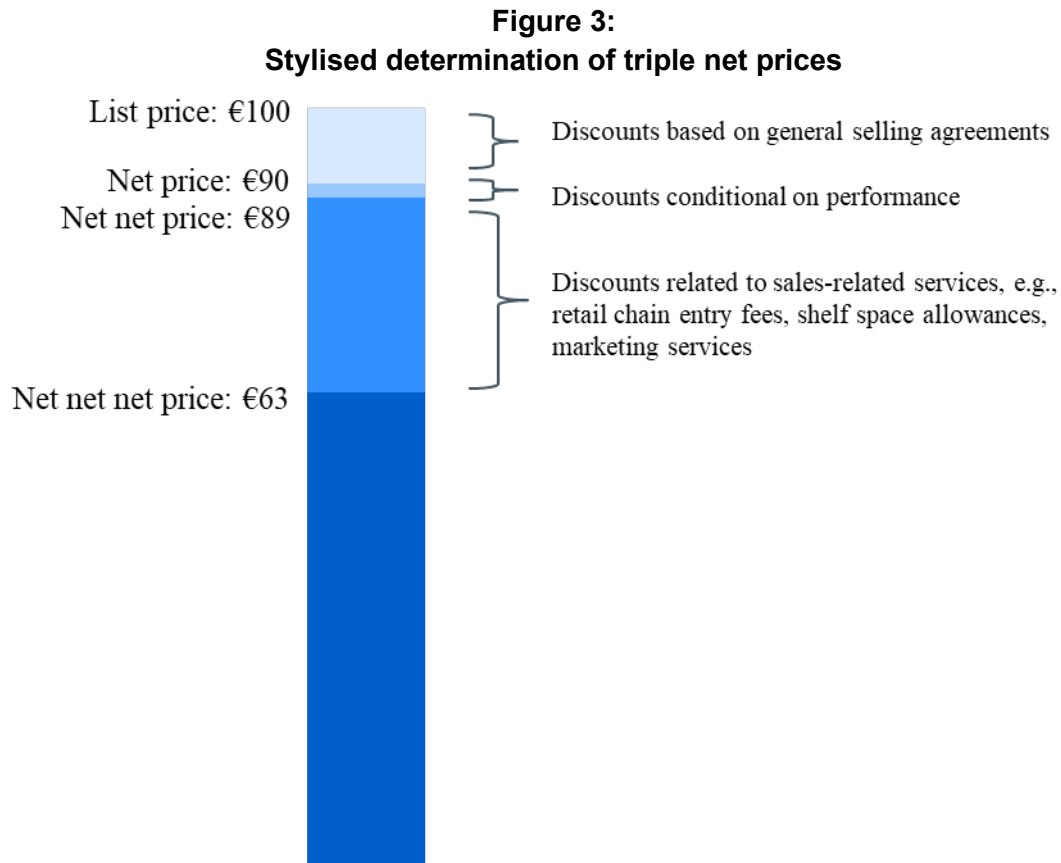


Source: NERA analysis.

- (14) As a rule, retailers set a consumer price and consumers then decide whether to buy the product at that price or not. Retail prices are not negotiated between the retailer and the consumer. In contrast, the wholesale prices paid by the retailers to the manufacturers, as well as other contractual conditions, are typically negotiated bilaterally. The same is true for the wholesale prices paid by the wholesalers to the manufacturers.
- (15) The wholesale prices negotiated between retailers/wholesalers and brand manufacturers are generally subject to various discounts and rebates that may be deducted from the list price. The list price is thus only the starting point for the formation of the effective transaction price, often referred to as the triple net price (see below). As a result, prices may effectively vary across transactions even if they follow from the same list price. Additional factors, such as additional price components related to logistics and taxes, may further contribute to the wholesale price dispersion. To the extent that the dispersion in wholesale prices is passed on to final consumers, such dispersion will also be reflected in retail prices. Apart from wholesale prices, many other factors out of brand manufacturers' control may lead to retail price differences across different markets.
- (16) In most Member States, rebates and discounts may be differentiated into three types: (1) general sales conditions; (2) performance discounts; and (3) service-related discounts. Wholesale prices are mostly based on front margins, gross margins, and discounts on invoices, while back margins are not automatically

included in wholesale prices. Depending on the Member State, it may or may not be mandatory to have all discounts shown on invoices. Whether back margins are transparent or not may also help explain differences in wholesale prices across Member States.

- (17) The following Figure 3 presents a stylised illustration of the different discounts and rebates that may be applied to a hypothetical list price of €100.



Source: NERA analysis based on information provided by AIM.

- (18) Discounts may be based on the general sales conditions stipulated by manufacturers. These conditions may, for example, be fixed price reductions granted for specific sizes of purchase orders, logistical discounts, or discounts for early payment. These discounts are typically included on the invoice at the time of delivery. In the example in Figure 3, they amount to €10, resulting in a *net price* of €90.
- (19) Manufacturers may give additional discounts conditional on the performance of retailers. The performance metrics are mainly driven by consumer demand. They may relate to retailers' marketing efforts to promote brand visibility or specific selling achievements. For instance, end-of-year rebates conditional on an increase in annual sales are supposed to incentivise retailers' marketing efforts and distribution efforts (*e.g.*, higher weighted distribution). In the stylised example presented in Figure 3, these discounts amount to €1, which results in a *net net price* of €89.

- (20) Retailers may use their bargaining power to demand payment or other forms of compensation for the services they deliver, or even when performing little or no services. Discounts for these sales-related services or other commercial cooperation agreements may be billed annually, quarterly, or even monthly. These relate, for example, to fixed fees that manufacturers are required to pay to distribute their products through a specific retailer (*i.e.*, retail chain entry fees) or shelf space allowances and other promotion activities of the retailer. With a total amount of sales-related services and fees for commercial cooperation agreements of €26, the effective wholesale transaction price, that is the *net net net price* (or *triple net price*), is €63 in the example in Figure 3.
- (21) Since discounts for sales-related services may also be thought of as compensation for services provided by the retailer, the relevant product should not be thought of as the physical product sold by the manufacturer to the retailer. Instead, it consists of the bundle of the physical product and the services provided by the retailer and/or manufacturer.
- (22) During a negotiation, the brand manufacturer and retailer might, for example, agree that the retailer include the manufacturer's product prominently in its advertising. The brand manufacturer would benefit from this effort through a higher sales volume. To compensate the retailer for this effort, it would then grant a discount for purchases from the brand manufacturer. Comparing the effective price paid by this retailer to the price paid for the same physical product by another retailer who did not exert any effort would not be appropriate. Comparing wholesale prices across Member States when retailers provide different levels of service is therefore misleading.<sup>10</sup>
- (23) In addition, discounts may take many different forms. They may be granted retroactively, tied to multiple services or reciprocal services, or invoiced separately. Consequently, the effective unit prices included in the invoice at delivery may differ substantially from the retailers' true costs.<sup>11</sup> If, for example, conditional discounts or incomes generated through sales-related services are not applied and shown on the invoice, they are also referred to as the retailers' back margin or hidden margin. The difference between the invoice price and the final retail price is in contrast referred to as the retailers' front margin.

## 2.2. Retailers' seller and buyer power

- (24) Retailers often possess significant market power, both on their input markets relative to the brand manufacturers (buyer power) and on their output markets relative to consumers (seller power). Due to retailers' buyer power, brand

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<sup>10</sup> Retailers also have different negotiation strategies across countries. In some countries, they only focus on the triple net price so that the negotiation directly focuses on that price. In other countries, they start from the list price and separately negotiate the different discounts and rebates that they are eligible for.

<sup>11</sup> See Biscourp, Boutin and Vergé (2013).

manufacturers cannot simply impose any conditions that they would like, leaving retailers and wholesalers with no choice but to accept them. Retail buyer power appears to be a broad phenomenon across the EU,<sup>12</sup> and concerns surrounding retail market concentration led several European national competition authorities (“NCAs”) to conduct sector inquiries into this sector.

- (25) For example, the sector inquiry of the German competition authority (the Federal Cartel Office, “FCO”) found that competitive conditions on food retail markets in Germany are dominated by four major retailers.<sup>13</sup> According to the FCO, an important factor determining the supply conditions is the purchase volume of the retailer.<sup>14</sup> Large retailers have a structural advantage in bargaining with brand manufacturers, and may further increase this advantage in retail alliances.<sup>15</sup> Moreover, the FCO found that very few products (6% of the sample) have a level of brand strength that may be capable of offsetting such buyer power.<sup>16</sup> Retail alliances, private label products and purchasing cooperatives further enhance retailers’ bargaining power.<sup>17</sup>
- (26) Other national competition authorities came to similar conclusions in their sector inquiries, documenting considerable retailer buyer power:
- The Austrian competition authority (Bundeswettbewerbsbehörde, “BWB”) found significant buyer power of food retailers.<sup>18</sup> The BWB based this finding on the very high degree of concentration in the food retail market and the limited outside options for manufacturers. The BWB also criticised the opaque conditions and rebates that are common in the food retail market – especially retroactive demands for rebates by retailers. In summary, the BWB saw the danger of an abuse of buyer power by retailers.
  - The Portuguese competition authority (Autoridade da Concorrência, “AdC”) investigated buyer power in food retail markets in 2006 and 2010.<sup>19</sup> The AdC found that bargaining power is generally in favour of retailers.

<sup>12</sup> European Commission (2014), p. 50ff.

<sup>13</sup> See Bundeskartellamt (2014), p. 406ff. The FCO’s sector inquiry focused on the following product categories as examples: sparkling wine, frozen pizza, roasted coffee, jam, ketchup, milk, and chilled milk coffee beverages.

<sup>14</sup> See Bundeskartellamt (2014), p. 403.

<sup>15</sup> See Bundeskartellamt (2014), p. 407.

<sup>16</sup> See Bundeskartellamt (2014), p. 404.

<sup>17</sup> See Bundeskartellamt (2014), p. 409f.

<sup>18</sup> See Bundeswettbewerbsbehörde (2007).

<sup>19</sup> See Rodrigues (2006) and <https://www.concorrenca.pt/en/articles/competition-authority-presents-final-report-commercial-relations-between-suppliers-and>, last accessed 09.12.2022.

- Nordic competition authorities found in a sector inquiry that concentration in the Nordic retail markets was high, resulting in high buyer power.<sup>20</sup>
  - The Spanish competition authority (Comisión Nacional de los Mercados y la Competencia, “CNMC”) found increasing concentration on the Spanish retail market, a tendency towards vertical integration, and a sharp increase in the bargaining power of retailers versus manufacturers further to the creation of a group purchasing organisation.<sup>21</sup>
- (27) In addition, antitrust authorities have routinely assessed retailers’ market power in their merger investigations. For example, in 2015 the FCO prohibited a merger of two retailers out of concerns about competition on the retail market in several geographic areas, as well as concerns about the buyer power of the merged entity.<sup>22</sup> An ex-post investigation of the effects of the second largest retailer acquiring the fifth largest retailer in France found a small but statistically significant price increase after the merger, suggesting the creation or strengthening of market power.<sup>23</sup>
- (28) To summarise, retailers have been shown to possess market power both on their input and their output markets. In addition, they can rely on retail alliances and private label products to improve their bargaining position *vis-à-vis* brand manufacturers. It is therefore questionable whether brand manufacturers would generally be capable of “imposing” TSCs on retailers.

### 2.3. Consumer preferences and branding

- (29) The preferences of consumers naturally play a crucial role in the consumer goods industry. Consumer preferences depend on a wide range of factors, including branding, local traditions, local tastes, product composition, and manufacturing location (for example, “buy local” and specific labels of origin). In addition, preferences can vary according to packaging and labelling.
- (30) The European Commission has typically found geographic markets to be national in scope.<sup>24</sup> Reasons that are repeatedly cited are the varying consumer preferences in Member States (as evidenced from differing market shares in different Member

<sup>20</sup> See Nordic Competition Authorities (2005). The inquiry included inputs from Denmark, Faroe Islands, Finland, Greenland, Iceland, Norway, and Sweden.

<sup>21</sup> See Comisión Nacional de la Competencia (2011).

<sup>22</sup> See Bundeskartellamt, Case B 2-96/14, Edeka/Tengelmann. The merger was later approved through a special ministerial permission.

<sup>23</sup> See Allain, Chambolle, Turolla and Villas-Boas (2017).

<sup>24</sup> See Case M.7881 – AB InBev/SABMiller, Case M.7292 – DEMB/Mondelez/Charger OpCo, Case M.5658 – Unilever/Sara Lee Body Care, Case M.5644 – Kraft Foods/Cadbury and Case M.3149 – Procter & Gamble/Wella.



States), the importance of national brands and regulatory differences across Member States.<sup>25</sup>

- (31) The importance of consumer preferences for locally produced products can be seen with the example of dairy products. Consumers' preference for local milk is traditionally strong and, as consumers' focus on sustainability and local sourcing increases, local production of milk and dairy products gains further relevance.<sup>26</sup> Consumer preferences can vary not only across countries but also at a more local level. Preferences for packaging formats differ as well, with larger multi-packs in some markets and individual products in other markets.<sup>27</sup>
- (32) More broadly, consumer preferences over the packaging of products are heterogeneous and relate, among other observable determinants, to household characteristics. For example, larger households tend to prefer larger package sizes.<sup>28</sup> Differences in average household size across countries will therefore influence packaging choices by retailers and brand manufacturers.<sup>29</sup> This is amplified by limited shelf space, which will push retailers and brand manufacturers to prioritise those products that appeal the most to the preferences of the consumers in the Member State. For example, packaging formats differ significantly for beer bottles and cans across Europe, with 33cl and 50cl being common sizes in Germany, while 25cl is the common volume in France. Cereal boxes in Ireland are large, while they are smaller in France and the Netherlands.
- (33) National differences in consumer preferences are also reflected in the different market positions and market shares of manufacturers that are present across Europe.<sup>30</sup> Furthermore, the existence of distinct national demand characteristics is evidenced by the fact that brand manufacturers engage in differentiated marketing efforts across the Member States.<sup>31</sup> The interaction between consumer preferences

<sup>25</sup> See Case M.7881 – AB InBev/SABMiller, para. 35, Case M.5658 – Unilever/Sara Lee Body Care, para. 1280 and Case M.1632 – Reckitt & Colman/Benckiser, para. 18.

<sup>26</sup> See Euromonitor International (2018). Sustainable Dairy: Trends and Growth Opportunities. <https://www.reportlinker.com/p05628798/Sustainable-Dairy-Trends-and-Growth-Opportunities.html>, last accessed 09.12.2022; see also FrieslandCampina (2022). 2022 Trend Report: Trends in Tasty Treats. <https://www.frieslandcampinaprofessional.com/industry/insights/download-trendreport2021-22>, last accessed 09.12.2022.

<sup>27</sup> See Hirsch, Tiboldo and Lopez (2018).

<sup>28</sup> See Hoffmann and Bronnmann (2019).

<sup>29</sup> Average household sizes in the EU in 2021 are between 1.9 persons per household (Finland) and 2.9 persons per household (Slovakia). See Statista, *Average number of persons per household in selected European countries in 2021*, <https://www.statista.com/statistics/1231406/average-household-size-in-europe/>, last accessed 09.12.2022.

<sup>30</sup> See Case M.7881 – AB InBev/SABMiller, Table 1, Case M.5658 – Unilever/Sara Lee Body Care, Table 4, Case M.7292 – DEMB/Mondelez/Charger OpCo, Table 3 - Table 12, Case M.5644 – Kraft Foods/Cadbury, paras. 51, 76, 86, 102, 109, 110 and 132.

<sup>31</sup> See Case M.5658 – Unilever/Sara Lee Body Care, para. 921 and Case M.3149 – Procter & Gamble/Wella, para. 23.

and locally tailored advertising and branding campaigns by manufacturers plays a fundamental role in the consumer goods industry.<sup>32</sup>

- (34) Marketing initiatives are developed nationally to be meaningful to local consumers. This highlights the national focus of brand manufacturers operating in Europe, which is supported by the finding that adaptation to local culture, preferences and tastes improves brands' performance.<sup>33</sup> The advertising research company Millward Brown, for example, has found "*that few ads can transcend cultural boundaries. [...] while using the same ad campaign across borders may offer cost efficiencies, the savings realized may not outweigh the benefit offered by local engagement.*"<sup>34</sup>
- (35) The European Commission has also recognised the importance of branding and marketing for consumer goods in its merger decisions.<sup>35</sup> For example, the Commission recognises that advertising campaigns can be a costly barrier to entry for new product rollouts,<sup>36</sup> but also that brand positioning allows manufacturers to target consumption niches, shape consumer tastes via promotions, and build brand loyalty.<sup>37</sup> Thus, manufacturers closely monitor advertising spend and impacts.<sup>38</sup>
- (36) In summary, consumer preferences are heterogeneous regarding both the products themselves and their packaging. In addition, advertising and marketing play an important role in driving demand for consumer goods. To be successful, most marketing and advertising campaigns need to be adapted to local consumers.

## 2.4. Regulation, labelling, packaging, and recycling

- (37) The European consumer goods industry is subject to regulation at both the European and the national level, which manufacturers are legally obligated to comply with. These regulations may impose specific obligations regarding the ingredients of products, their labelling and packaging, and the conditions under which they may be sold.
- (38) The purpose of this section is to briefly discuss examples of regulations that may have the effect of restricting cross-border trade in the European Union and thereby

<sup>32</sup> See Shum (2004), who shows that advertising can enable firms to overcome existing brand loyalty and be an effective means to increase sales for ready-to-eat cereals. On different types of advertising, see Belleflamme and Peitz (2015), Chapter 6.1. Informative advertising may make consumers aware of the introduction of a new product. For a study showing the informative nature of advertising, see Akerberg (2001). Similarly, retailers may use direct mail advertising to inform consumers about a promotion on products.

<sup>33</sup> See Dow (2006); Wong and Merrilees (2007); Calantone, Kim, Schmidt and Cavusgil (2006).

<sup>34</sup> See Hollis, N. (2009). Culture Clash: Globalization Does Not Imply Homogenization. <https://www.millwardbrown.ru/library/LRE615.pdf>, last accessed 09.12.2022.

<sup>35</sup> See Case M.7881 – AB InBev/SABMiller, para. 44.

<sup>36</sup> See Case M.3149 – Procter & Gamble/Wella, para. 56.

<sup>37</sup> See Case M.7881 – AB InBev/SABMiller, paras. 19, 28, 39 and Case M.7292 – DEMB/Mondelez/Charger OpCo, para. 46, 163-165, 169 and Case M.5658 – Unilever/Sara Lee, para. 40f.

<sup>38</sup> See Case M.7292 – DEMB/Mondelez/Charger OpCo, para. 169.

prevent prices from converging. As such, the focus will primarily be on those areas that are under the purview of national regulators. The notion that regulatory differences may affect cross-border trading is, of course, self-evident.<sup>39</sup> Indeed, such regulatory differences are often discussed under the label of non-tariff barriers to trade (NTB).<sup>40</sup> Given the large variety of product categories within the consumer goods industry, the coverage here is necessarily incomplete.

- (39) In this section we discuss examples concerning regulation of food composition (Section 2.4.1), food labelling (Section 2.4.2), recycling and (beverage container) deposit schemes (Section 2.4.3).

### 2.4.1. Food composition

- (40) In 2006, a European Union regulation generally allowed food manufacturers to add certain vitamins and minerals to food products.<sup>41</sup> Because the regulation did not set maximum vitamin amounts,<sup>42</sup> this was done at the national level,<sup>43</sup> resulting in fragmentation.
- (41) This may be illustrated by the differing approaches to vitamin D fortification in Germany, the Netherlands and Denmark.
- Germany has enacted maximum amounts of vitamin D in margarine and whole meals.<sup>44</sup> Selling other food products with added vitamin D requires a special permit or a general ruling.<sup>45</sup> A special permit is only valid for a specific product of a specific manufacturer. For general rulings, descriptions of the specific products must be filed, including the amount of added vitamins and minerals. For example, there are four general rulings regarding breakfast cereals that allow certain combinations of added vitamin D and iron – with permissible vitamin D levels between 2.8 and 3

<sup>39</sup> For a comprehensive overview of the many legal restrictions to trade across Member States, see European Parliament Committee on Internal Market and Consumer Protection (2021), “Legal obstacles in Member States to Single Market rules”, available at [https://www.europarl.europa.eu/RegData/etudes/STUD/2020/658189/IPOL\\_STU\(2020\)658189\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/658189/IPOL_STU(2020)658189_EN.pdf), last accessed 09.12.2022.

<sup>40</sup> See Grübler and Reiter (2021) for a recent overview.

<sup>41</sup> See Regulation (EC) No 1925/2006 – Rules on the addition of vitamins and minerals and some other substances to foods.

<sup>42</sup> See European Commission, Community Register on the addition of vitamins and minerals and of certain other substances to foods, Section C. [https://ec.europa.eu/food/system/files/2021-01/labelling\\_nutrition-vitamins\\_minerals-comm\\_reg\\_en.pdf](https://ec.europa.eu/food/system/files/2021-01/labelling_nutrition-vitamins_minerals-comm_reg_en.pdf), last accessed 09.12.2022.

<sup>43</sup> See Regulation (EC) No 1925/2006 — Rules on the addition of vitamins and minerals and some other substances to foods, Art. 17.

<sup>44</sup> See Verordnung über vitaminisierte Lebensmittel (LMvitV), § 1b.

<sup>45</sup> See Lebensmittel-, Bedarfsgegenstände- und Futtermittelgesetzbuch (LFGB), § 54 and § 68.

µg per 100 g.<sup>46</sup> Furthermore, fortified food must be labelled with the amount of added vitamins and minerals.

- The Netherlands allows fortification of food with up to 4.5 µg vitamin D per 100 kcal as a general maximum level.<sup>47</sup>
- In Denmark, each fortified food product needs to be approved individually by the Danish Veterinary and Food Administration before it can be marketed.<sup>48</sup> For each product, the application requires detailed information and an application fee.

- (42) At least ten Member States require food manufacturers to add vitamin A, vitamin D and/or iodine to certain products.<sup>49</sup> This concerns products like salt, margarine, other fats, and milk.
- (43) For alcoholic beverages, national regulation on product composition has clear repercussions for product availability across countries. For example, in Sweden and Finland, only beverages with low alcohol content can be sold in supermarkets, while beverages with higher alcohol content can only be sold in state-owned liquor stores and in restaurants. In Finland, alcoholic beverages with an alcohol content above 5.5% are sold only in the state-owned Alko liquor shops and in restaurants.<sup>50</sup> The system in Sweden is similar, but the classification differs: beverages with an alcohol content above 3.5% are sold only in the state-owned Systembolaget and in restaurants.<sup>51</sup> Responding to these restrictions, producers adapt the alcohol content of their products – in particular beer – for these markets, to be able to sell their products also in supermarkets.

#### 2.4.2. Labelling

- (44) The European Union's framework for the provision of food information to consumers allows Member States to adopt national requirements for the labelling of food packages.<sup>52</sup> These requirements are thus country-specific and may create

<sup>46</sup> See Bundesamt für Verbraucherschutz und Lebensmittelsicherheit, Allgemeinverfügungen nach § 54 LFGB, [https://www.bvl.bund.de/DE/Arbeitsbereiche/01\\_Lebensmittel/04\\_AntragstellerUnternehmen/07\\_Allgemeinverfuegungen/01\\_Archiv\\_Uebersicht/01\\_Angereicherte\\_LM/Anger\\_LM\\_node.html](https://www.bvl.bund.de/DE/Arbeitsbereiche/01_Lebensmittel/04_AntragstellerUnternehmen/07_Allgemeinverfuegungen/01_Archiv_Uebersicht/01_Angereicherte_LM/Anger_LM_node.html), last accessed 09.12.2022.

<sup>47</sup> See Verkaik-Kloosterman, J., Beukers, M. H., Jansen-van der Vliet, M., & Ocké, M. C. (2015).

<sup>48</sup> See Ministry of Food, Agriculture and Fisheries of Denmark, Fortified food, [https://www.foedevarestyrelsen.dk/english/Food/Fortified\\_food/Pages/default.aspx](https://www.foedevarestyrelsen.dk/english/Food/Fortified_food/Pages/default.aspx), last accessed 09.12.2022.

<sup>49</sup> See European Commission, Community Register on the addition of vitamins and minerals and of certain other substances to foods, Section D. [https://ec.europa.eu/food/system/files/2021-01/labelling\\_nutrition-vitamins\\_minerals-comm\\_reg\\_en.pdf](https://ec.europa.eu/food/system/files/2021-01/labelling_nutrition-vitamins_minerals-comm_reg_en.pdf), last accessed 09.12.2022.

<sup>50</sup> See Ministry of Social Affairs and Health, Department for Safety, Security and Health / TUTO, Wellbeing and Health Protection Unit / HYT (2018). Comprehensive reform of Alcohol Act. <https://web.archive.org/web/20211123031210/https://stm.fi/en/comprehensive-reform-of-alcohol-act> archived website last accessed through Wayback Machine on 09.12.2022.

<sup>51</sup> See Nordic Alcohol and Drug Policy Network (NordAN). Alcohol & Drug Report. <https://www.nordicalcohol.org/sweden-availability>, last accessed 09.12.2022.

<sup>52</sup> See Regulation (EU) No 1169/2011, Food Information to Consumers Regulation (FIC).

the need for country-specific food packaging. The European Commission also recognises that national rules on language requirements may constitute barriers to intra-EU trade and that it may be “*necessary to use the national language in order to ensure that the consumers easily understand the information concerning the product in question.*”<sup>53</sup>

- (45) According to the Regulation on the provision of food information to consumers, the mandatory information on food packages “*shall appear in a language easily understood by the consumers.*”<sup>54</sup> This allows Member States to define which of the 24 official languages is required. Space on the packaging of many products is limited. Therefore, it would not be possible to include all official languages and it might be even detrimental to the provision of clear information of consumers. Brand manufacturers therefore need to make a choice as to what language(s) to put on the packaging of their products. As a result, many manufacturers use country-specific packaging for most of the Member States that they serve.<sup>55</sup>
- (46) While the size of the packaging might be increased to fit labels in more languages, this will have clear cost and environmental implications.<sup>56</sup> This would also stand in contrast with the Packaging and Packaging Waste Directive, which aims to prevent the production of packaging waste. Increasing packaging space simply to provide labels in more languages that, to most consumers, will be of no use is just wasteful.
- (47) Furthermore, Member States also require mandatory indication of the country of origin or place of provenance and the expression of net quantity.<sup>57</sup> Regarding specific products like milk and milk products and certain alcoholic beverages, the Member States have further possibilities to impose national labelling requirements.<sup>58</sup>
- (48) In addition to the mandatory requirements, Member States can, and most do, also give recommendations that food manufacturers are asked to follow voluntarily.<sup>59</sup> The Commission finds in this context that “*even voluntary labelling measures can*

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<sup>53</sup> See Commission Notice, 23.03.2021, “Guide on Articles 34-36 of the Treaty on the Functioning of the European Union”, Section 4.12.

<sup>54</sup> See Regulation (EU) No 1169/2011, Food Information to Consumers Regulation (FIC), Art. 15.

<sup>55</sup> The physical and commercial reality that not all languages can appear on packages is also evidenced by the private label products made by retailers. Like the products made by brand manufacturers, private label products sold in multiple Member States do not include all or even several of the languages of the European Union on their packaging.

<sup>56</sup> A larger packaging size to fit labels in more languages may also result in consumer complaints about bigger packages without increased content.









<sup>57</sup> See Regulation (EU) No 1169/2011, Food Information to Consumers Regulation (FIC), Art. 39 and 42.

<sup>58</sup> See Regulation (EU) No 1169/2011, Food Information to Consumers Regulation (FIC), Art. 40 and 41.

<sup>59</sup> See Regulation (EU) No 1169/2011, Food Information to Consumers Regulation (FIC), Art. 35 and 43.

constitute barriers.”<sup>60</sup> An overview of different nutrition labelling schemes is shown in Table 1 below.

**Table 1:**  
**Nutrition labelling schemes for Member States and the United Kingdom**

<i>Examples of FOP schemes</i>	<i>Developer</i>	<i>EU Member State</i>
Reference Intakes label 	Private	Across the EU
Nutri-Inform Battery 	Public	IT
UK FOP label 	Public	UK
Other 'traffic light' labels 	Private (retailers)	PT, ES
Keyhole 	Public	SE, DK, LT
Heart/Health logos 	NGO  Public	FI SI  HR
Healthy Choice 	Private	CZ, PL Phased out in NL
Nutri-Score 	Public	FR, BE ES, DE, NL, LU

Source: European Commission (2020). Report from the Commission to the European Parliament and the Council – regarding the use of additional forms of expression and presentation of the nutrition declaration, p. 7. “FOP” stands for front-of-pack.

- (49) The pressure on brand manufacturers to introduce (national) nutrition labels is high. National policymakers, consumer organisations and retailers demand that brand manufacturers adopt national nutrition labelling schemes.<sup>61</sup> For example, when a leading German retailer introduced the Nutri-Score on all private label products in 2021, it demanded that brand manufacturers follow suit: “*we expect the food manufacturers to also label their products with the Nutri-Score.*”<sup>62</sup>
- (50) Due to public pressure to adopt nutritional labels at the level of individual Member States, brand manufacturers need to use country-specific packaging that complies with the specificities of the national labelling scheme. As the Commission describes, “*national recommendations on front-of-pack nutrition labelling, although voluntary, could create a pressure on EU food business operators to*

<sup>60</sup> See European Commission (2020). Commission Staff Working Document – Business Journey on the Single Market: Practical Obstacles and Barriers, p. 131.

<sup>61</sup> See Böhm, A. (2020). Der Handel gibt Gas beim Nutri-Score in Deutschland, *The Retail Optimiser*. <https://retail-optimiser.de/der-handel-gibt-gas-beim-nutri-score-in-deutschland>, last accessed 09.12.2022. See also BEUC, Consumer groups in Pro-Nutri-Score countries call for science-based label review, press release, <https://www.beuc.eu/press-media/news-events/consumer-groups-pro-nutri-score-countries-call-science-based-label-review>, last accessed 09.12.2022.

<sup>62</sup> See Rewe (18.01.2021). *REWE: Nutri-Score ab sofort für alle Eigenmarken-Produkte verfügbar*, press release. <https://mediacenter.rewe.de/pressemitteilungen/rewe-nutri-score-fuer-alle-eigenmarken>, last accessed 09.12.2022.

*label all products present on the national market with the official scheme promoted by the Member State in question.”*<sup>63</sup> Therefore, the European Commission recognises that the “*variety of front-of-pack schemes present on the EU market [...] could also result in fragmentation of the internal market [and] costs for businesses having cross-border activities.*”<sup>64</sup>

### 2.4.3. Recycling and deposit schemes

- (51) Recycling and disposal schemes diverge across Member States regarding their labelling requirements. Package labels inform consumers about how to recycle and/or dispose of packaging of consumer goods like food and personal care products, and manufacturers must adapt packaging nationally to satisfy the different national labelling requirements.<sup>65</sup>
- (52) One recycling label that is used in several Member States is the Green Dot. It means that the manufacturer takes part in an extended producer responsibility scheme for recovery, sorting, and recycling of packaging waste. Other Member States require the Triman or the Tidyman pictogram. Starting in 2022, several countries also require the alphanumerical codes envisaged by Decision 97/129/EC and sorting instructions as to the colour of the relevant recycling bin.<sup>66</sup>
- (53) For example, the use of the Green Dot is penalised in France, while it is allowed in other countries and even mandatory in Spain.<sup>67</sup> France instead requires the use of the Triman pictogram and the inclusion of sorting instructions.
- (54) For beverage packing, different deposit schemes for containers may also fragment the internal market for beverages. As the European Commission found:

*“While regulatory steering measures taken at Member State level in order to introduce systems for the reuse of beverage packaging may serve environmental goals, they also have the potential to divide the internal market. For market operators engaged in activities in several Member States these systems often make it more difficult to take advantage of business opportunities within the internal market. Instead of selling the same product in the*

<sup>63</sup> See also European Commission (2020), p. 131.

<sup>64</sup> European Commission (2020). Inception Impact Assessment on the Proposal for a revision of Regulation (EU) No 1169/2011 on the provision of food information to consumers. [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12749-Food-labelling-revision-of-rules-on-information-provided-to-consumers\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12749-Food-labelling-revision-of-rules-on-information-provided-to-consumers_en), last accessed 09.12.2022.

<sup>65</sup> See Agon, J.-P. (2021). Don't let the foundation crack. In ERT (Ed.). *Renewing the dynamic of European integration: Single Market Stories by Business Leaders* (p. 70ff). [https://ert.eu/wp-content/uploads/2021/12/ERT-Single-Market-Stories\\_WEB-low-res.pdf](https://ert.eu/wp-content/uploads/2021/12/ERT-Single-Market-Stories_WEB-low-res.pdf), last accessed 09.12.2022.

<sup>66</sup> See FoodDrink, EUROPEN et al. (2021). Joint industry call for an EU approach to packaging waste labelling. [https://www.europen-packaging.eu/wp-content/uploads/2021/06/Joint-industry-call-for-an-EU-approach-to-packaging-waste-labelling-June-2021-final\\_.pdf](https://www.europen-packaging.eu/wp-content/uploads/2021/06/Joint-industry-call-for-an-EU-approach-to-packaging-waste-labelling-June-2021-final_.pdf), last accessed 09.12.2022.

<sup>67</sup> Ibid.



*same packaging in different markets, they are required to adapt their packaging to the requirements of each individual Member State, which usually leads to additional costs.”<sup>68</sup>*

- (55) At least eight countries in the European Union have a mandatory deposit system for beverage packaging including plastics.<sup>69</sup> Additionally, most of these countries also have deposit systems for metal and glass beverage packaging. These rules differ across the Member States in their coverage and the amount of the deposit.<sup>70</sup> Depending on the national deposit scheme, some indication needs to be added to the packaging to inform the consumer about the relevant deposit scheme.

## 2.5. Production and transport costs

- (56) Production and transport costs may play an important role in a brand’s decision on where to establish manufacturing plants for its products and what prices to charge for them. Transporting consumer goods from one Member State to another will unavoidably involve costs. Transport costs may be economically significant and prevent cross-border trade, depending on their value relative to the value of the products in question.<sup>71</sup> In addition to the cost of transport itself, namely fuel costs and driver wages, the freight needs to be prepared for transport, loaded, and unloaded.<sup>72</sup>
- (57) Perishable goods, like milk and dairy products, are particularly sensitive to transport. *“To ensure the proper transport chain of these items, the temperature, humidity and transport time should be adjusted, appropriate transport means and appropriate personnel should be selected to service the load.”<sup>73</sup>* Due to the high hygienic requirements, transport costs for these goods are high, thus limiting cross-national supply.
- (58) Transport costs are a considerable factor for other beverages (for example, beer and carbonated soft drinks) as well, not only because of the substantial weight of the product and its packaging. Indeed, many beverages also require temperature

<sup>68</sup> European Commission (2009). Communication from the Commission — Beverage packaging, deposit systems and free movement of goods – 2009/C 107/01.

<sup>69</sup> Deloitte (2019). Deposit-Refund System (DRS). [https://www2.deloitte.com/content/dam/Deloitte/pl/Documents/Brochures/pl\\_DRS\\_Brochure\\_Deloitte.pdf](https://www2.deloitte.com/content/dam/Deloitte/pl/Documents/Brochures/pl_DRS_Brochure_Deloitte.pdf), last accessed 09.12.2022.

<sup>70</sup> EU Directorate General for External Policies of the Union (2011). A European Refunding Scheme for Drinks Containers – Briefing Paper. [https://www.europarl.europa.eu/RegData/etudes/note/join/2011/457065/IPOL-AFET\\_NT\(2011\)457065\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/note/join/2011/457065/IPOL-AFET_NT(2011)457065_EN.pdf), last accessed 09.12.2022, p. 16ff.

<sup>71</sup> For an example of a study demonstrating the importance of transport costs in trade, see Martin (2012).

<sup>72</sup> See Persyn, Díaz-Lanchas and Barbero (2020, in press).

<sup>73</sup> See Caban, J., & Kravchenko, K. (2018). Chosen Aspects of Packages in the Distribution of Selected Dairy Products. *LOGI–Scientific Journal on Transport and Logistics*, 9(2), 1-9.



control, especially in winter to avoid freezing.<sup>74</sup> Certain beverages like bottled water have a low profit margin, which means transport costs are a major factor shaping distribution patterns.<sup>75</sup> All of these factors set limits to profitable transport distances.

- (59) The distribution network is also acknowledged as a relevant consideration for market definition by the European Commission in its merger investigations. For example, the investigations typically point to logistic networks and the need for just-in-time deliveries as a factor behind national logistics.<sup>76</sup>
- (60) To reduce transportation costs, manufacturers often produce at multiple locations even within a single Member State. If firms produce their products locally rather than in a central location, differences in local factors, such as labour cost, may lead to differences in production costs. Even if production takes place centrally, the need to transport the product to different destinations means that total costs differ depending on the destination. Therefore, even if transport costs are not large enough to make centralised production uneconomical, they may nevertheless create cost differences depending on the destination location.

## 2.6. Summary

- (61) This section demonstrates that, in contrast to retail prices that are unilaterally set by retailers, wholesale prices paid by retailers to manufacturers, as well as other contractual conditions, are typically negotiated bilaterally. As retailers possess substantial buyer power in these negotiations, manufacturers cannot simply impose prices or contractual conditions. Retailers have considerable bargaining power to oppose conditions – including alleged TSCs – that they dislike.
- (62) The section also discusses certain factors that may contribute to the differences in wholesale and/or retail prices that are observed across countries. In particular, there may be frictions in cross-country trade for a large variety of reasons, some of which are listed below:
- Differences in consumer demand for retail products and product packaging;
  - Differences in national advertising or branding strategies;
  - Differences in sector-specific regulations, concerning, for example:
    - i. Food composition,

<sup>74</sup> See Nevels, B. R. (2021). How Beverage Shippers Can Optimize Their Freight Transportation Operations. <https://www.echo.com/blog/how-beverage-shippers-can-optimize-their-freight-transportation-operations>, last accessed 09.12.2022.

<sup>75</sup> Ibid.

<sup>76</sup> See Case M.7881 – AB InBev/SABMiller, para. 34, and Case M.3149 – Procter & Gamble/Wella, para. 26.

- ii. Labelling,
  - iii. Packaging,
  - iv. Recycling;
- Transportation costs (transportation mode, fuel, wages, *etc.*).
- (63) Because of these factors, as well as differences in production costs that are due in turn to differences in wages, material costs and availability, taxes and regulation, prices for consumer goods can vary substantially across Member States. Without explicitly quantifying the effect of the various factors on price differences across Member States, it is not possible to say whether there is some variation that is left to be explained. And even if some unexplained variation remained, it cannot just be assumed that TSCs are the sole missing explanation.
- (64) The Study fails to recognise these complexities. Instead, the Study claims that the *“quantitative analysis of retail prices shows that the wide range of prices charged across the EU by manufacturers to retailers for the purchase of specific branded products cannot be fully explained by the factors which are typically applied to explain price differences, such as different taxation regimes (including VAT), labour costs, raw material costs, production costs (e.g., related to volumes/economies of scale), pricing of logistics.”*<sup>77</sup> These factors are, however, only a small subset of those discussed in this section.<sup>78</sup> It is therefore not appropriate to assume that TSCs are needed to explain differences in retail or wholesale prices between Member States.
- (65) In conclusion, it is not appropriate for the Study to assume, as we will explain it does, that TSCs can explain a given share – if not all – of the cross-country differences in wholesale prices.<sup>79</sup> While it is widely recognised that observed differences in wholesale prices across Member States are caused by different national regulations, consumer preferences as well as transport and production costs, the Study fails to demonstrate the existence of corresponding links between alleged TSCs and these price differences. While the existence and relevance of these other barriers is extensively documented, this is not the case for TSCs.

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<sup>77</sup> See the Study, p. 104. For a detailed critique of the Study’s quantitative analysis, see Section 5.

<sup>78</sup> It is not clear, however, how an analysis of retail prices can be capable of assessing the extent to which differences in wholesale prices are explained by various factors.

<sup>79</sup> See Section 5.

### 3. The notion of TSCs

- (66) To evaluate the Study’s claims regarding the prevalence and effects of TSCs, it is necessary to define what the Study considers to constitute a TSC in the first place. As we show in Section 3.1, this is not a straightforward task. In Section 3.2, we note that, while the Study considers possible reasons for manufacturers’ alleged use of TSCs, this also emphasises the difficulty of telling apart TSCs from benign commercial practices. Irrespective of the precise definition, however, the primary theory of harm relating to TSCs appears to be that they enable cross-country price discrimination. For this reason, we summarise in Section 3.3 the relevant aspects of the economic literature on differential pricing. We then turn in Section 3.4 to two prior reports examining the likely effects of TSCs.<sup>80</sup>

#### 3.1. The Study’s flawed definition of TSCs

- (67) The Study defines TSCs as:

*“barriers imposed by private operators (suppliers) in the supply chain, which can affect retailers or wholesalers. These may impede or limit the retailers’ or wholesalers’ ability to source goods in other EU countries than the one they are based in, and/or prevent them from distributing (i.e. reselling) goods to other EU countries than the one in which they are based. Typically, retailers or wholesalers subject to TSCs are referred to a specific national subsidiary of the supplier. For example, they can be barred from being supplied from abroad or the products may be differentiated to make cross-border supplying impossible.”<sup>81</sup>*

- (68) This definition is too far-reaching. It suggests that there is an absolute right of retailers and wholesalers to source what they want where they want it – irrespective of the interests of their trading partners. This clearly contradicts the principles of commercial freedom and freedom of contract which apply to all market participants – including manufacturers. Manufacturers are generally free to decide with whom they want to do business and under which terms. Not selling to a retailer or wholesaler based in another Member State may be due to a vast array of reasons other than wanting to restrict cross-border supplies. The proposed definition of TSCs by the Study fails to recognise this basic commercial reality. Such reasons may include (but are not limited to):
- Products may be required by law to have specific **packaging**, so that foreign supplies, while containing the same physical product, may simply

<sup>80</sup> See RBB Economics (2013) and for the DICE Study, Wey and Schröder (2019).

<sup>81</sup> See the Study, p. 19f.

not be allowed to be sold, or may be allowed only after incurring significant repackaging costs.<sup>82</sup>

- Products may be required by law to have different **labels**, so that foreign supplies, while containing the same physical product, may not be seen as identical by domestic consumers.<sup>83</sup>
- The **cost of transporting** the product from the foreign country to the retailer's domestic warehouse may be prohibitive. Alternatively, supplying the retailer from a domestic plant of the manufacturer may be more economical.<sup>84</sup>
- The **production capacity** at the relevant plants of the brand manufacturer may have been designed with the needs of the relevant local market in mind. For this reason, serving the additional demand from abroad might not be feasible.

(69) A clear and operational definition of what constitutes a TSC and what does not is therefore missing.<sup>85</sup> Rather, as the term appears to be used in the Study, TSCs are a broad collection of heterogeneous practices. What is more, the Study presumes these practices to be harmful, disregarding brand manufacturers' discretion in organising their business and encumbering them with the burden of explaining why there are valid reasons for adopting such practices. As a result of the ambiguity on what practices constitute TSCs, the Study also fails to explain what quantitative and qualitative evidence would be needed to reach the conclusion that a given practice constitutes a TSC.

(70) Because the Study does not put forward a clear and consistent definition of TSCs, the scope for what practices might constitute TSCs ends up being too broad. Adopting such a view would in effect require brand manufacturers to justify standard and benign commercial practices on a case-by-case basis. As a result, manufacturers' commercial and contractual freedoms would be severely restricted if they had to justify in each case the use of a practice that is erroneously caught by the Study's overly broad definition of TSCs. This would be even more inappropriate considering the Study's finding that private label products' prices vary across Member States similar to brand manufacturers' products.<sup>86</sup> This suggests that both retailers' and brand manufacturers' pricing behaviour is driven

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<sup>82</sup> See Section 2.4.

<sup>83</sup> See Section 2.4.

<sup>84</sup> The Study (fn. 10) does acknowledge that brand manufacturers selling to retailers and wholesalers abroad under the condition that they collect the products themselves would not be considered TSCs.

<sup>85</sup> See also European Commission (2013).

<sup>86</sup> See Section 5.1.2.

mostly by the market environment, *i.e.*, national regulations, consumer preferences as well as trade and production costs, rather than the possible presence of TSCs.

- (71) In many cases, brand manufacturers cannot even erect barriers that may impede or limit cross-border trade. Retailers and wholesalers should generally be able to oppose any such attempts by a brand manufacturer given their own buyer power.<sup>87</sup> Brand manufacturers need to comply with diverging, and possibly even contradictory, national frameworks that may directly or indirectly lead to different prices or sales conditions. In those instances, the brand manufacturers thus simply follow rules set by Member States and therefore cannot be erecting barriers to trade.
- (72) The Commission’s Notice on Article 34 TFEU explains, for example, that “[l]anguage requirements imposed in non-harmonised areas may also constitute a barrier to intra-EU trade in case they result into an additional burden on products originating in other Member States. Hence, they may be prohibited under Article 34 TFEU when products coming from other Member States have to be given a different labelling, which results in additional packaging costs. In some instances, it may however be necessary to use national language in order to ensure that the consumers easily understand the information concerning the product in question. In its judgment in *Yannick Geffroy*, the Court ruled that Article 34 TFEU ‘must be interpreted as precluding a national rule [...] from requiring the use of a specific language for the labelling of foodstuffs, without allowing for the possibility of using another language easily understood by purchasers or of ensuring that the purchaser is informed by other means’.”<sup>88</sup> Concerns about legal and regulatory obstacles to the free movement of goods have also been identified in a report written for the European Parliament in November 2020.<sup>89</sup>
- (73) Because the Study often finds practices to be TSCs without a careful consideration of the possible benign reasons for their use, we will refer to them as ***alleged TSCs***. As we show in Section 4, the Study does not provide any concrete evidence for the prevalence or even of the existence of TSCs.<sup>90</sup> As such, it remains an open question whether TSCs are a useful concept to analyse and categorise the commercial practices of brand manufacturers.
- (74) For the avoidance of doubt, it is our understanding that AIM strongly opposes the definition of TSCs as proposed by the Study. The present report should therefore

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<sup>87</sup> See Section 2.2.

<sup>88</sup> See Commission Notice, 23.03.2021, “Guide on Articles 34-36 of the Treaty on the Functioning of the European Union”, Section 4.12. Footnotes in the original have been omitted for greater clarity.

<sup>89</sup> See European Parliament Committee on Internal Market and Consumer Protection (2021), “Legal obstacles in Member States to Single Market rules”, available at [https://www.europarl.europa.eu/RegData/etudes/STUD/2020/658189/IPOL\\_STU\(2020\)658189\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/658189/IPOL_STU(2020)658189_EN.pdf), last accessed 09.12.2022.

<sup>90</sup> The only instances in which the Study finds TSCs are based on existing antitrust cases of the European Commission or national antitrust authorities. Since these practices are in any case covered by existing competition law, it is not clear whether the concept of TSCs adds additional value.

not be interpreted in a way that would suggest that AIM agrees with the definition of TSCs as laid down in the Study.

### 3.2. Possible reasons for alleged TSCs

- (75) The Study begins by using surveys to collect evidence that supposedly shows the existence of TSCs, only to discuss possible justifications for the identified practices at a later stage.<sup>91</sup>
- (76) Importantly, however, the Study acknowledges that, based on observations made by manufacturers, “*perceived TSCs [...] can also be traced back to legitimate market behaviour of manufacturers.*”<sup>92,93</sup> Different reasons for cross-country price differences (or differences in product availability) discussed in the Study could be mistaken for, but do not constitute, TSCs.
- **Logistical reasons.** Both manufacturers and retailers have observed that limited cross-country product availability can be due to logistical reasons.<sup>94</sup> Reasons for nationally-based logistics include “*short shelf life, high transportation costs and/or developed local raw material network[s]*”.<sup>95</sup> Furthermore, “*according to both interviewed retailers and producers, the proximity of the producing factories especially affects products that require shorter supply chains, such as fresh and frozen products, limiting their availability due to expiry dates and the high costs of the logistics.*”<sup>96</sup>
  - **Local market customisation.** Brand manufacturers indicated that they “*often have a local subsidiary or selective/exclusive distribution network in each country.*”<sup>97</sup> This enables them to better respond to local market characteristics and consumer preferences. Indeed, large producers often offer different local/national brands that are specifically developed for particular markets only. The marketing activities for these local/national brands are based on consumer research often carried out at the local or national level.<sup>98</sup> Based on the JCR Study on Dual Quality, the Study also notes that brand manufacturers use product differentiation to adapt to local markets that differ in terms of “*culture, consumer preference [...], competitive environment, law and regulation, demand [...]* and

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<sup>91</sup> See the Study, p. 42.

<sup>92</sup> See the Study, p. 42.

<sup>93</sup> These correspond roughly to those also mentioned in Section 2.

<sup>94</sup> See the Study, p. 42.

<sup>95</sup> See the Study, p. 43 and the background material in Section 2.

<sup>96</sup> See the Study, p. 45.

<sup>97</sup> See the Study, p. 43.

<sup>98</sup> See the Study, p. 44.

*demography of the consumers.*”<sup>99</sup> The Study further notes that “*profit maximisation and localisation form the main rationale for manufacturers to differentiate their products and to impose TSCs to protect this differentiated offer.*”<sup>100</sup> This implies that product differentiation to respond to local market characteristics may be mistaken for TSCs but does not, in and of itself, constitute a TSC or related practice.

- **Regulatory differences.** Differences in regulatory requirements across Member States may discourage retailers and wholesalers from sourcing products cross-border.<sup>101</sup> Retailers claimed that regulatory differences “*would not be an adequate explanation for the full price difference*”,<sup>102</sup> which indicates that regulatory differences themselves do not constitute TSCs. Among the relevant regulatory differences that can limit cross-border trade mentioned by the Study are language labelling,<sup>103</sup> national regulations concerning alcohol,<sup>104</sup> and national container-deposit systems.<sup>105</sup>
- **Operational restrictions.** The Study notes several operational restrictions faced by retailers in the European Union, some of which (restrictions on sales below cost, discounted sales, product-specific sales, advertising and sourcing) may also restrict cross-border trade and thereby affect wholesale prices.<sup>106</sup> For example, if retailers face restrictions on their ability to advertise in a Member State, then the brand manufacturer would naturally not be able to apply a discount for such a service, thereby leading to a higher effective wholesale price.

- (77) To the extent that the Study accepts the different reasons discussed above, it accepts that any perceptions regarding the existence and prevalence of TSCs cannot be conclusive. The Study itself notes that “*actual evidence on TSCs [...] is far from conclusive.*”<sup>107</sup>
- (78) Despite the evidence on TSCs being far from conclusive, the Study notes, however, that, according to the retailers, “*the price[s] in the lower-priced markets are closer to the ‘natural’ price, while manufacturers are keeping the prices artificially high*

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<sup>99</sup> See the Study, p. 45.

<sup>100</sup> See the Study, p. 45.

<sup>101</sup> See the Study, p. 49.

<sup>102</sup> See the Study, p. 49.

<sup>103</sup> See the Study, p. 49. Language labelling of course only restricts cross-border trades for countries that do not share the same language.

<sup>104</sup> See the Study, p. 50. Different taxation rules can affect the alcohol content of beverages in different Member States. See also Section 2.4.1.

<sup>105</sup> See the Study, p. 50. See also Section 2.4.3.

<sup>106</sup> See the Study, p. 50, Table 18. See also European Commission (2018a).

<sup>107</sup> See the Study, p. 44.

*in the higher-priced markets.*<sup>108</sup> No evidence to corroborate this general claim is given in the Study. In fact, the assertion that the low prices observed in some Member States are in some way “natural” prices that should prevail without the alleged TSCs has no basis in economic theory either. As the summary of the relevant literature in Section 3.3 shows, price convergence would involve prices in the cheaper Member States to increase. There are even circumstances in which more arbitrage opportunities can raise prices in all markets.<sup>109</sup> Adopting the Study’s logic, it would be equally plausible to refer to the price in the expensive markets as the “natural” price, while manufacturers are keeping prices artificially low in the lower-priced markets.

- (79) Overall, the Study discusses several reasons for cross-country price differences (or differences in product availability) but again wrongly assumes from the outset that these are TSCs, when in fact they are not. Taking the justifications for the use of the alleged TSCs into account would have clarified that the alleged practices may well be adopted for legitimate and benign reasons. As a result, a rigorous assessment is required to ensure that an observed, allegedly harmful, practice is not a benign and standard commercial practice.

### **3.3. Welfare economics of differential pricing**

- (80) Since TSCs may in theory enable differential pricing, it is necessary to understand the economic implications of differential pricing. This topic has been studied extensively in the economic literature. In the following paragraphs, we summarise the main conclusions from this literature, as relevant for the review of the Study’s claims about TSCs and their alleged effects. A more detailed discussion of the literature is available in Appendix A.
- (81) For the case of a monopolist setting different prices in different markets, the economic literature generally finds that, under perfect arbitrage, the uniform price will lie above the low and below the high prices.<sup>110</sup> To the extent that observed price differences are the result of TSCs, removing them would therefore increase the prices in the countries with low prices, but decrease prices in the countries with high prices. Even if TSCs existed, removing them would thus harm at least some consumers, and the harm to such consumers might outweigh the benefit to the other consumers.
- (82) In the extreme case, it may happen that, once TSCs are removed, a brand manufacturer would only serve the markets with high prices. In such a case, the removal of TSCs would not only harm consumers in the low-price country, who

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<sup>108</sup> See the Study, p. 44.

<sup>109</sup> See Appendix A.3.

<sup>110</sup> For details see Appendix A.1 and A.2.



would no longer have access to the product, but it would also not benefit consumers in the high-price country, whose prices would remain at the high level.

- (83) When brand manufacturers compete, restricting their ability to set differential prices will also increase prices in some countries and decrease them in others – as in the case of a monopolist.<sup>111</sup> In addition, when brand manufacturers compete, differential pricing may intensify competition. This may then result in lower prices in all countries under differential pricing compared to uniform pricing. This means that, when there is competition, the removal of TSCs (if they exist in the first place) could increase prices in all affected countries.
- (84) When differential pricing is applied in markets where buyers are not final customers but retailers who, in turn, resell the products to final customers, the main results described above continue to hold: the removal of TSCs (if they exist in the first place) would be expected to increase prices in some countries and reduce them in others.<sup>112</sup> Since brand manufacturers and retailers often negotiate not just over a simple price but may also use discounts and fixed payments, the removal of TSCs could have further adverse consequences. Without TSCs, the use of discounts and other contractual terms may be inhibited, since a buyer obtaining a large discount might compete with the brand manufacturer in selling to other retailers. Manufacturers would then be less willing to grant discounts to a customer, if they expected that doing so would create competition from that customer regarding the manufacturer’s other customers. As a result, the wholesale prices faced by retailers would increase after the removal of TSCs, which the retailers would pass on to consumers.
- (85) For differential pricing by brand manufacturers to have an effect on consumers, it is necessary that wholesale prices, which brand manufacturers negotiate with retailers, are passed on into retail prices. If there is no or limited passing-on of wholesale prices into retail prices, then TSCs will likewise have no or limited effect on consumers. As a result, even if TSCs were shown to exist, an effect of TSCs on consumers could not be simply assumed. Economic theory predicts that the rate at which wholesale prices are passed on depends on a variety of factors, and the relevance of the degree of market competition as one such factor is also acknowledged in the Study.<sup>113</sup> To assess the effect of differential wholesale prices on consumers, it is thus necessary to quantify the pass-on rate, which may well

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<sup>111</sup> For details see Appendix A.3.

<sup>112</sup> For details see Appendix A.4.

<sup>113</sup> “Ultimately, the pass-through of reductions in the retailer purchase prices due to the possible elimination of TSCs and more actual or potential cross-border sourcing would depend on the level of competition in the retail market and, more specifically, on the response of manufacturers to the elimination of TSCs. Regarding the level of competition in the retail market, in the more competitive markets retailers would have to pass-through the reductions to consumers to a larger extent as otherwise they would deteriorate their position.” See the Study, p. 104f.

vary across product categories and geographies, and take into account the factors determining them.

- (86) Overall, the economic literature finds that even if observed price differences across countries were attributable to the existence of TSCs, their removal would harm at least some consumers. When brand manufacturers compete and sell to retailers or wholesalers, there are also realistic scenarios in which the removal of TSCs would result in higher prices for all consumers.

### 3.4. Prior reports on TSCs

- (87) The possible effects of TSCs have already been addressed by several reports prior to the Study, some of which the Study also acknowledges.
- (88) Among the reports referenced by the Study, there is an analysis of differences in grocery prices in the euro area that the European Central Bank published in 2015 (the “ECB study”).<sup>114</sup> The ECB study concludes that *“in addition to consumer habits, structural features, specifically the competitive situation at the producer and retail levels, have an impact on prices and price dispersion.”*<sup>115</sup> This conclusion is in line with our findings in Section 2.
- (89) According to the Study, the ECB study found that *“after accounting for all explanatory factors, a significant price difference remains which is hypothesised as being caused by TSCs.”*<sup>116</sup>
- (90) We consider the Study’s comment on the ECB study quite inaccurate and misleading, since the ECB study refers to TSCs only once – in a footnote.<sup>117</sup> It does so without reference to any prior publications on TSCs and without defining the meaning of the term. Indeed, a closer reading of the footnote in the ECB study suggests that the study itself acknowledges that remaining price differences may be due to a variety of factors – including quality differences that have not been fully accounted for. It also suggests that, in referring to TSCs, the ECB study generically means various factors that may be responsible for price differences across Member States related or unrelated to the behaviour of brand manufacturers.
- (91) The Study also refers to another paper by the Benelux Union on “Territorial Supply Constraints in the Retail Trade in Belgium, the Netherlands and Luxembourg” (“Benelux paper”).<sup>118</sup> According to the Study, the Benelux paper *“shows that, according to the retailers surveyed, it [TSCs] is widespread in retail*

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<sup>114</sup> See ECB (2015).

<sup>115</sup> See ECB (2015), p. 1.

<sup>116</sup> See the Study, p. 22.

<sup>117</sup> See ECB (2015), p. 4, fn. 2.

<sup>118</sup> See General Secretariat of the Benelux Union (2018).

*trade across all Benelux countries.*”<sup>119</sup> In doing so, the Study omits some of the important qualifications that the Benelux paper makes. Indeed, the findings in the Benelux study are based entirely on a survey among retailers. Surveying retailers on TSCs is associated with many pitfalls and can lead to highly erroneous conclusions. These are the same problems from which the Study itself suffers and which are, for that reason, discussed in our report.<sup>120</sup> For example, the Benelux paper only provides vague explanations for what constitute TSCs, so that retailers are likely to misidentify standard commercial practices as TSCs.<sup>121</sup> The Benelux paper itself acknowledges that “*the data may not be statistically significant*”<sup>122</sup> and that “*registering TSCs openly and in a quantitative way has proved difficult. Quantitative and qualitative data and public information about concrete cases of TSCs are very rare, if they exist at all.*”<sup>123</sup>

- (92) In addition to the ECB’s and the Benelux paper, there are two further studies on economic issues related to TSCs. The first, authored in 2013 by RBB Economics on behalf of AIM (“RBB report”), concludes that if TSCs were used by brand manufacturers, then banning them would have unintended adverse effects. The second, authored in 2019 by DICE Consult on behalf of EuroCommerce (“DICE report”), reviews the economic literature on differential pricing, critically assesses the RBB report, and concludes that removing TSCs would have several advantages.<sup>124</sup>
- (93) The DICE report concludes that, because prices tend to be lower in “*large countries, e.g. Germany and Spain*” but high in “*smaller countries, e.g. Greece or Ireland*”, a movement towards more uniform prices would likely mean prices across Europe approaching those levels currently observed in the low-price countries.<sup>125</sup> The Study implicitly relies on this claim when it presents its (flawed) estimation of the alleged consumer benefits from the removal of TSCs.<sup>126</sup>
- (94) As explained in Section 3.3, this conclusion of the DICE report cannot be supported. If a move towards uniform prices does not lead to the weak market no longer being served, then the academic literature generally finds that the uniform price necessarily lies between the low and the high prices. If TSCs were in fact used by manufacturers and if these TSCs enabled price differences across Member States, then banning TSCs would generally lead to higher prices for some retailers

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<sup>119</sup> See the Study, p. 22.

<sup>120</sup> See Section 4. Most of the criticisms in that section are also applicable, *mutatis mutandis*, to the Benelux paper.

<sup>121</sup> See Benelux paper, p. 16f.

<sup>122</sup> See Benelux paper, p. 2.

<sup>123</sup> See Benelux paper, p. 4.

<sup>124</sup> The reference to the DICE report can be found in Appendix B under Wey and Schröder (2019).

<sup>125</sup> See DICE report, p. 5.

<sup>126</sup> See Section 5.

(and consumers) and lower prices for others. The DICE report cannot therefore support the Study's procedure to estimate consumer welfare gains, which assumes that prices in the higher-price Member States would fall to the level of the lowest-price Member State.

- (95) In addition, the claim that uniform prices would correspond to the low prices allegedly observed in Germany and Spain, by virtue of their relatively large size, must be questioned. Consumers' willingness to pay for retail products can be lower in large countries. For example, it is well-known that consumers in Germany are particularly price-sensitive and consequently have a low willingness to pay in many product categories. Hence, while Germany and Spain may be large in terms of population and the overall economy, this is not necessarily relevant for individual product markets and for the products of international brands in particular. The same reasons (such as private label competition or low demand) that may make these markets weak (by which we mean having low prices under differential pricing) may mean that these markets are also less important to the brand manufacturers than their size in terms of population might suggest. This is shown, for example, by the recent removal of a well-known brand of mineral water in Germany.<sup>127</sup>
- (96) The DICE report claims that the analysis of the RBB report ignores the retail tier of the consumer goods industry and "*fails to acknowledge the vertical business relation between brand manufacturers and retailers.*"<sup>128</sup> The DICE report itself, however, generally bases its discussion of differential pricing on academic studies that mostly consider a firm setting different prices to consumers directly. It does so by arguing that – contrary to our findings in Section 2.2 – retailers compete intensely and therefore do not possess market power.<sup>129</sup> As seen in Appendix A, however, a consideration of market power at the level of the retailers can yield additional insights into the likely effects and welfare consequences of differential pricing. Finally, contrary to the claim in the DICE report, the RBB report does briefly refer to some literature that explicitly considers a vertical industry structure in which retailers also possess market power.<sup>130</sup>
- (97) Additionally, the DICE report rejects the observation in the RBB report that a ban on TSCs would restrict the possibility for other beneficial forms of differential pricing, such as quantity discounts and promotional discounts.<sup>131</sup> As shown in Section 3.3, however, perfect arbitrage will ensure that the marginal price across

<sup>127</sup> See Manager Magazin, 02.02.2022, "Nestlé stoppt Vittel in Deutschland und Österreich", <https://www.manager-magazin.de/unternehmen/handel/nestle-stoppt-verkauf-von-vittel-in-deutschland-und-oesterreich-a-5843b108-9bed-40cd-a4a2-94a67b1562e9>, last accessed 09.12.2022.

<sup>128</sup> See DICE report, p. 53.

<sup>129</sup> See DICE report, Section 3.

<sup>130</sup> See RBB report, p. 22, fn. 22. The relevant papers are Inderst and Valletti (2009) and Inderst and Shaffer (2009).

<sup>131</sup> See DICE report, p. 54.

countries equalises also when manufacturers attempt to use other types of beneficial differential pricing. As a result, a ban on TSCs would also hinder these pro-competitive effects of second-degree differential pricing. The RBB report's observation should therefore not be rejected.

(98) The DICE report concludes its discussion of the RBB report as follows:

*“We have [...] analysed the RBB study (2013), which argues that price discrimination is ubiquitous, mirrors market efficiency and raises brand manufacturers’ profits, which is economically necessary because of fixed costs and the need for investment. We show that none of the arguments put forward is convincing or grounded in sound economic principles.”*<sup>132</sup>

(99) To the contrary, the summary of the economic literature that we have provided in Section 3.3 shows that there are ample reasons to expect that differential pricing not just generates ambiguous welfare effects but that, in many cases, it also generates unambiguous welfare improvements. The DICE report can only reach its erroneous conclusion by ignoring large parts of the relevant literature on differential pricing that suggest that differential pricing can benefit consumers.<sup>133</sup>

(100) In summary, the prior reports that we have reviewed do not allow to make general statements about the existence of TSCs or their effects on consumer welfare.

(101) Given the existing studies and the lack of clear evidence on the existence and effects of TSCs, the Study would have needed to complete two tasks.

- First, identify instances of TSCs, distinguishing them from instances in which the observed behaviour is a benign commercial practice.
- Second, determine the impact that the removal of TSCs would have on prices and consumer welfare.

(102) In the next section, we demonstrate that, like the prior reports, the Study fails to provide evidence that suggests the existence of TSCs.

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<sup>132</sup> See DICE report, p. 4.

<sup>133</sup> The DICE report fails to cite many of the relevant articles showing benefits (or the potential of benefits) from differential pricing, including Corts (1998), Dobson and Waterson (2005), Inderst and Shaffer (2009), Arya and Mittendorf (2010), as well as Herweg and Müller (2014). One of the authors of the DICE report has also co-authored an article showing the benefits of differential pricing: “*We [...] show that price discrimination in intermediary goods markets tends to have positive effects on allocative, dynamic and productive efficiency [...]. In contrast, a discrimination ban tends to facilitate exit of relatively inefficient firms, thereby strengthening downstream market concentration.*” See Dertwinkel-Kalt, Haucap and Wey (2016). That article, which is also not cited in the DICE report, prominently highlights a number of articles that are somewhat critical of differential pricing, namely Katz (1987), DeGraba (1990) and Yoshida (2000). Interestingly, these articles are also not being cited in the DICE report, again highlighting the very cursory coverage of the literature therein.

#### **4. The Study's analysis of the existence and prevalence of TSCs**

- (103) Having presented the relevant factual and conceptual background to understand TSCs in Sections 2 and 3, respectively, we now turn to a critical review of the Study's findings, discussing first (in this section) its analysis of the existence and prevalence of TSCs and, subsequently (in Section 5), its analysis of their impact on prices and consumer expenditures.
- (104) In this section, we first explain why the methodology of the Study is fundamentally flawed (Section 4.1). We then examine the evidence that the Study provides regarding the existence and prevalence of TSCs by type of practices (Section 4.2) and by geography (Section 4.3).

##### **4.1. Methodology**

- (105) Section 2 of the Study presents its methodology. To assess the prevalence and the effects of TSCs, the Study relies on a literature review, computer-assisted telephone interviews (CATI), targeted in-depth interviews, and an online survey with retailers, wholesalers, and brand manufacturers. In addition, national competition authorities are also surveyed.
- (106) The Study acknowledges that there were "*several issues*" with the CATI survey, which are reflected in the differing number of interviews per country.<sup>134</sup> The Study provides no further explanation as to what these issues were. The following Table 2 shows that, notwithstanding the source of these issues, the responses in the CATI survey end up being clearly not representative for the European Union as a whole.

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<sup>134</sup> See the Study, p. 12.

**Table 2:**  
**Over- and underrepresentation of Member States in CATI survey**

Member State	CATI Weight	Population Share
(a)	(b)	(c)
	------(Percent)-----	------(Percent)-----
Austria	2.0	2.0
Belgium	3.4	2.6
Bulgaria	1.5	1.6
Croatia	1.5	0.9
Cyprus	8.0	0.3
Czechia	3.8	2.4
Denmark	4.9	1.3
Estonia	1.7	0.3
Finland	2.3	1.2
France	1.7	15.0
Germany	2.6	18.6
Greece	8.0	2.4
Hungary	8.6	2.2
Ireland	4.6	1.1
Italy	2.0	13.4
Latvia	3.5	0.4
Lithuania	3.4	0.6
Luxembourg	4.1	0.1
Malta	4.0	0.1
Netherlands	8.3	3.9
Poland	1.2	8.5
Portugal	3.2	2.3
Romania	4.8	4.3
Slovakia	3.8	1.2
Slovenia	2.5	0.5
Spain	3.5	10.5
Sweden	0.9	2.3

Source: NERA analysis based on the Study, Table 3, p. 12, and Eurostat.  
Population shares are based on population in 2019.

- (107) As indicated in the Study, the number of responses given for each Member State does not correspond to the relative population shares. Many large countries, such as Germany (17 responses) and France (11 responses), are less well-represented than smaller countries, such as Belgium (22 responses) and Ireland (30 responses).<sup>135</sup>

<sup>135</sup> See the Study, Table 3, p. 12.

- (108) Similarly, the responses to the online survey do not appear to be representative of the European Union as a whole. This is shown in Table 3 below. While there are no responses at all for some Member States, other large Member States, including Poland, Germany, Italy, and Spain, are strongly underrepresented. For example, while there were four responses from Italy, this amounts to the same number of responses received from the much smaller Luxembourg. Likewise, the number of responses received from Germany (5) is the same as that from Finland and less than that from Romania (7).

**Table 3:**  
**Over- and underrepresentation of Member States in the online survey**

Member State	Online Survey Weight	Population Share
(a)	(b)	(c)
	----- (Percent) -----	----- (Percent) -----
Austria	8.0	2.0
Belgium	21.4	2.6
Bulgaria	0.9	1.6
Croatia	6.3	0.9
Cyprus	0.0	0.3
Czechia	7.1	2.4
Denmark	5.4	1.3
Estonia	0.9	0.3
Finland	4.5	1.2
France	9.8	15.0
Germany	4.5	18.6
Greece	0.9	2.4
Hungary	0.9	2.2
Ireland	0.0	1.1
Italy	3.6	13.4
Latvia	0.0	0.4
Lithuania	0.0	0.6
Luxembourg	3.6	0.1
Malta	0.0	0.1
Netherlands	4.5	3.9
Poland	0.9	8.5
Portugal	0.9	2.3
Romania	6.3	4.3
Slovakia	2.7	1.2
Slovenia	0.0	0.5
Spain	3.6	10.5
Sweden	3.6	2.3

Source: NERA analysis based on the Study, Table 6, p. 15, and Eurostat.  
Population shares are based on population in 2019.



- (109) The Study's primary analysis of the targeted in-depth interviews is based on data collected from only twelve Member States, namely Austria, Belgium, Croatia, Czechia, Denmark, Estonia, France, Luxembourg, the Netherlands, Portugal, Romania, and Slovakia.<sup>136</sup>
- (110) While the Study suggests that the data are representative enough to draw conclusions for the European Union as a whole, the Study provides three reasons for selecting these countries: (1) the country was part of the study by the European Commission's Joint Research Centre (JRC) on the Differences in Composition of Seemingly Identical branded Products (DC-SIP); (2) it was in the top 12 of the CATI survey; or (3) the literature review suggested that TSCs might be an issue in that country.<sup>137</sup>
- (111) All the three reasons for inclusion in the focus group speak strongly against the representativeness of the selected countries. The fact that some Member States have already been studied in other research would suggest that the Study would be more likely to find evidence for the existence and prevalence of TSCs in these countries and thereby overestimate their prevalence in the other Member States that were not the focus of the Study's attention.
- (112) Three countries, namely Austria, Belgium, and Luxemburg, were selected because of the large price differences that are allegedly observed in comparison to other countries (Germany, the Netherlands as well as France, and Germany, respectively). As our summary of the economics of TSCs in Section 3.3 has made clear, however, if the price differences were due to TSCs, then their elimination would not be predicted to reduce prices in the high-price markets to the level of the low-price markets. In addition, the elimination of what are alleged to be TSCs would be predicted to affect prices in the low-price markets as well. Therefore, a focus on high-price markets is misleading.
- (113) In addition, as the Study itself acknowledges, "*it was mostly retailers with an interest in the topic that were highly motivated to participate [...], which may pose a selection bias.*"<sup>138</sup> This selection bias is also reflected in the results of the Study. While roughly half of the respondents in the online survey claimed to have been subject to TSCs, only 5% to 20% of retailers and wholesalers responded that way during the CATI interviews as part of the scoping of the Study.<sup>139</sup> While a biased response may also not be ruled out during the scoping of the Study and the CATI interviews, the large increase in the share of retailers claiming to have been subject to TSCs in the later online survey suggests that the problem got worse. To the

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<sup>136</sup> See the Study, p. 10, Table 1.

<sup>137</sup> See the Study, p. 10, Table 1.

<sup>138</sup> See the Study, p. 102.

<sup>139</sup> See the Study, p. 102.

extent that the Study were to find TSCs to be used, their prevalence would therefore be overstated by a factor of up to ten.

- (114) Overall, the Study's adopted methodology leads to a severe underrepresentation of some larger European countries, including Germany, Spain, and Italy. This might not be of much consequence if the effects of alleged TSCs were expected to be similar across countries, but this is not at all the case. As is acknowledged in the Study itself and in other publications, prices in the underrepresented countries are often below those in the focus countries.<sup>140</sup> What is more, economic theory does not predict that the elimination of alleged TSCs would lead prices in the overrepresented countries to fall to the level of prices in the underrepresented countries.

#### **4.2. Alleged existence and prevalence of TSCs by practice type**

- (115) One of the primary tasks of the Study is to provide evidence for the existence and prevalence of TSCs. Based on the very limited and anecdotal evidence consisting mostly of unsubstantiated claims made by retailers, one cannot conclude that TSCs are prevalent. The Study therefore fails to complete one of its primary tasks. As the Study itself notes, "*actual evidence on TSCs [...] is far from conclusive.*"<sup>141</sup>
- (116) In Section 3.2.2. of the Study, the existence and prevalence of TSCs is investigated, based on the online survey and the CATI survey. The Study provides a list of practices that constitute TSCs under its Terms of Reference. These practices are:
- *"Refusals to supply (i.e. suppliers refuse to sell a certain product in a certain country to a domestic or a foreign buyer, since they assume it would be sold in another country);*
  - *Quantitative limitations (i.e. supplier imposes supply quotas and other limitations on the quantity sold of a certain product since they assume it would be sold in another country);*
  - *Restrictions to supply promotions (i.e. restrictions on promotions of certain products under the condition that they will be distributed only in a certain territory);*
  - *Destination obligations (i.e. products are sold under the condition that they will not be resold to other wholesalers or retailers);*
  - *Obligation of no reselling (i.e. products are sold under the condition that they will not be resold to other wholesalers or retailers);*

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<sup>140</sup> See DICE Study, p. 23.

<sup>141</sup> See the Study, p. 44. Note that the study is thus implicitly acknowledging that its supposed evidence on the prevalence on TSCs is itself not conclusive. See also Section 4.2 and Section 4.3.

- *Differentiation of products in terms of content/composition (i.e. differences in composition of seemingly identical branded products across national markets, which are not a TSC per se, but a related practice possibly making TSCs possible);*
- *Differentiation of products in terms of packaging (i.e. national language labelling and/or refusal to put multi-language labels, different packaging size, which are not a TSC per se, but a related practice possibly making TSCs possible).’’<sup>142</sup>*

- (117) The contradictory nature of this list is apparent. While purporting to constitute a list of TSCs, the added explanations repeatedly clarify that a listed practice, such as differentiation of products in terms of content and packaging, does not constitute a TSC in itself, but may be related to one. Even if differences in product composition and packaging were not also regulated nationally (which they are, see Section 2.4), it would be in the interest of consumers that brand manufacturers tailor their product offering according to their tastes and preferences.<sup>143</sup>
- (118) Other practices, namely refusals to supply and quantitative limitations, are qualified to only apply to cases where the reason for the refusal or limitation is because the supplier assumes that the product would be sold in another country. Whether a practice constitutes a TSC under the definition used by the Study is therefore made dependent on the subjective intentions of the supplier adopting it. As there may be several reasons for refusing to supply or limiting quantities, such as capacity constraints, excessive transport costs, *etc.*, it is entirely unclear how one can conclude, without conducting an evidence-based investigation on a case-by-case basis, whether the decisive reason was the assumption that these goods would be sold in another country.
- (119) The Study also attempts to distinguish between TSCs and “*TSC-related practices, which can be used alongside TSCs, such as product differentiation.*”<sup>144</sup> The Study accepts that these may be based on regulatory barriers but claims that they may be “exploited” by manufacturers to hinder or discourage cross-border sourcing of retailers. According to the Study, retailers and wholesalers also felt that, in some cases, manufacturers used these differences “*to introduce further TSCs.*”<sup>145</sup> The Study does not clarify what these “further TSCs” might be. The Study also does not explain how, in practice, it would be possible to distinguish TSCs from related practices.

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<sup>142</sup> See the Study, p. 24.

<sup>143</sup> The Study does acknowledge that the manufacturers pointed to the consumer benefits of differentiated product offering. See the Study, p. 22f.

<sup>144</sup> See the Study, p. 24.

<sup>145</sup> See the Study, p. 24.

- (120) The Study's results concerning the prevalence of the behaviour that is alleged to constitute TSCs are summarised in Table 4 below.

**Table 4:**  
**Prevalence of “types of TSCs and related practices or their symptoms” according to the Study’s online survey**

Type of TSC	Responses	
	Number	Share ----(Percent)----
Refusals to supply certain products	32	46
Differentiation of products in terms of packaging (e.g. national language labelling and/or refusal to put multi-language labels, packaging size)	21	30
Destination obligation (i.e. obligation to limit the supply to only a certain market/area)	20	29
Differentiation of products in terms of content	19	27
Quantitative limitations (including supply quotas and others)	17	24
Restrictions to supply promotions/Restrictions on promotions of certain products (please provide examples)	11	15
Other types of TSCs	5	7

Source: Study, Table 12, p. 24.

Notes: Respondent retailers and wholesalers were asked: “*What types of TSCs is your company facing? (multiple answers possible)*”. There was a total of 69 responses.

- (121) Unfortunately, the detailed results of the CATI survey are not visible in the public version of the Study.<sup>146</sup> Nevertheless, according to the Study, “[t]he interviews with retailers and wholesalers confirm the survey and CATI results that usually cross-border imports are hindered or discouraged through refusal to supply, quantitative restrictions and product differentiation.”<sup>147</sup>
- (122) The information provided in the Study on the prevalence of these practices is however of questionable usefulness for understanding the prevalence of TSCs. This is because the interviews **assume** that product differentiation (both in terms of content and packaging), quantitative limitations and refusals to supply constitute TSCs.<sup>148</sup> This is also borne out by the interview guidelines shown in Annex III of the Study.<sup>149</sup>
- (123) What is notable about this is that the interview guidelines do not qualify any of the examples of alleged TSCs. As discussed above, the descriptions of these practices

<sup>146</sup> See the Study, Figure 3, p. 25.

<sup>147</sup> See the Study, p. 5.

<sup>148</sup> The same conceptual flaw is incurred in the Study’s quantitative analysis, which we discuss in Section 5.

<sup>149</sup> See the Study, p. 114 (retailers), p. 119 (wholesalers) and p. 134 (manufacturers).

in the Study itself<sup>150</sup> contain important qualifications. It is, for example, accepted that product differentiation, refusals to supply and quantitative limitations are only understood to be TSCs under some conditions.<sup>151</sup> This nuance appears to have been lost, however, when asking retailers and wholesalers about these practices, as shown by the questionnaires used for the interviews.<sup>152</sup> While the questionnaires and guidelines contain the same types of practices that allegedly constitute TSCs, the more detailed comments to the practices in parenthesis in the Study's main text are omitted for the questionnaires. There is thus, for example, no indication in the questionnaires that product differentiation is not a TSC per se. Without these qualifications, however, it is inappropriate to consider a retailer's or wholesaler's confirmation that it faced a refusal to supply as evidence for the use of a TSC, since this refusal may well be within the brand manufacturer's commercial freedom to choose what transactions to engage in and what counterparties to trade with.<sup>153</sup> There appears to be no attempt during the interviews to filter out legitimate instances of the use of these practices.

- (124) According to the Study, the most prevalent forms of TSCs mentioned by the surveyed retailers are refusals to supply, quantity limitations and product differentiation.<sup>154</sup> These will be discussed below in turn. In addition, the methodological problems in relation to the biased sample of the respondents outlined in Section 4.1 in the Study should be borne in mind.

#### 4.2.1. Product differentiation

- (125) The Study contains a question for brand manufacturers in which they are asked: *"If your company supplies wholesalers and retailers in other countries that [sic] the one you are based in, do you differentiate your offer across countries?"*<sup>155</sup> Unsurprisingly, a large majority of brand manufacturers confirm this to be correct. If only because of differences in consumer preferences, it is natural to expect brand manufacturers to differentiate their offerings to suit customer needs and desires as well as possible. A brand manufacturer might have local brands that only appeal to consumers in certain countries. This behaviour is, however, far from being of concern, as consumers, retailers and brand manufacturers all benefit when the products that are sold better serve consumers' needs. Furthermore, a brand manufacturer should not be required to offer for sale the same portfolio of products in every single country in which it operates. This would not be efficient and

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<sup>150</sup> See the Study, p. 24.

<sup>151</sup> See the Study, p. 24.

<sup>152</sup> See the Study, Annex III Interview guidelines and Annex IV Survey questionnaire.

<sup>153</sup> For more detail, see Section 4.2.2.

<sup>154</sup> See the Study, Table 12, p. 24.

<sup>155</sup> See the Study, Table 10, p. 23.

infringe the freedom of a brand manufacturer to organise its business in the most efficient way.

- (126) This is also explicitly acknowledged in the Study itself, where it is said that “*it is important to point out that product differentiation in itself does not constitute TSCs and it may be based on legitimate business and marketing reasons.*”<sup>156</sup> The only concrete example of TSC-related differentiation that the Study offers is the language of labelling in products that were the object of an antitrust case.<sup>157</sup>
- (127) There is additional evidence in the Study showing that package sizes and prices for three products differ across countries.<sup>158</sup> It is not clear, however, whether the differences in price are even related to TSCs, since the Study only displays “*average national retail prices*” rather than wholesale prices.<sup>159</sup> It is therefore not even clear whether the price differences are due to differences in wholesale prices or due to the retailers’ (other) costs and margins.
- (128) It is also not clearly explained in the Study how differences in package size can constitute TSCs. To do so, the differences in package sizes would need to be such that they prevent a wholesaler or retailer from buying the product in one Member State and shipping it to another. Given the similarity in package sizes shown in the Study, however, it is unclear why this should be the case.
- (129) To hinder retailers from sourcing from abroad, consumers or retailers would need to have a clear preference for some package sizes over others. If the size of packages did not matter for consumers and retailers, they could freely substitute different package sizes for the same product, hardly restricting cross-border trade. If there were strong preferences for package size, however, it would clearly be legitimate for a brand manufacturer to respond to those preferences. Hence, either package size differentiation does not matter, in which case it cannot be a TSC, or it does, in which case it is a legitimate and benign commercial practice of the brand manufacturer.<sup>160</sup>
- (130) It should also be noted that a brand manufacturer will typically offer its products in a variety of package sizes at different prices per unit of the packaged product, even within a single Member State, because consumers have different preferences

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<sup>156</sup> See the Study, p. 23.

<sup>157</sup> See the Study, p. 25f.

<sup>158</sup> See the Study, p. 26, Table 13.

<sup>159</sup> See the Study, p. 60.

<sup>160</sup> One potential use of packaging as a TSC could occur when consumers, retailers and wholesalers across Member States agree on how they rank different packaging sizes, so that in all Member States the same packaging size is the most preferred. The brand manufacturers could then use this most preferred packaging size in the high-price country and use a less preferred version in the low-price country. Whether this is indeed the case in practice would require an assessment of preferences over packaging sizes in the relevant Member States.

regarding package sizes. Finding that package sizes and prices differ across Member States should therefore not come as a surprise.<sup>161</sup>

- (131) The Study further claims that product differentiation is related to “*the problem of Dual Composition of Seemingly Identical Products (DC-SIP)*.”<sup>162</sup> The dual quality issue refers to allegations that products that otherwise appear to be identical are sold with a lower quality in certain Member States. As the Study points out, however, no evidence of actual dual quality has been found, because dual composition in the cases examined was due to different sourcing of component ingredients.<sup>163</sup>
- (132) The Study notes that according to some retailers a different product composition was used by brand manufacturers to support TSCs.<sup>164</sup> This is just another version of the paradox that we illustrated above for package size: if different product compositions matter to consumers, then it is legitimate for brand manufacturers to adapt composition to local markets; if not, the different composition would not be capable of restricting cross-border trade. In addition, it should be noted that differences in composition may be due to logistical constraints that make it more economical to source inputs locally where the product is manufactured and sold.
- (133) In summary, the Study does not provide convincing evidence that product differentiation, whether related to labelling, packaging, or composition, is used as a TSC by manufacturers. Furthermore, product differentiation is likely to be a legitimate response of manufacturers to differences in consumer preferences across Member States<sup>165</sup> and to differences in regulatory requirements.<sup>166</sup>

#### 4.2.2. Refusals to supply

- (134) According to the Study, approximately half of the surveyed retailers responded that manufacturers or wholesalers refused to supply them when trying to source products in another country based on their geographical location.<sup>167</sup> While not stating it explicitly, the Study appears to take this as evidence of the prevalence of TSCs. This is based partly also on responses by retailers reporting that they “*often*

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<sup>161</sup> For example, differences in package sizes can also be linked to local consumer purchasing power, with smaller packages being more affordable.

<sup>162</sup> See the Study, p. 26.

<sup>163</sup> See the Study, p. 26, fn. 28. See also the JRC study on this topic, Colen, Chrysochoidis, Ciaian and Di Marcantonio (2020). Since the Study’s publication, there have been further developments on the issue of dual quality, including a hearing at the European Parliament, see <https://www.europarl.europa.eu/committees/en/dual-quality-of-goods-in-the-single-mark/product-details/20211019CHE09564>, last accessed 09.12.2022.

<sup>164</sup> See Study, p. 26.

<sup>165</sup> See Section 2.3.

<sup>166</sup> See Section 2.4.

<sup>167</sup> See Study, Table 11, p. 23. Out of a total of 69 responses, 34 (49%) answered “Yes” to the question “*Were there any instances where you tried to source products in another EU country where you were refused based on your geographical location?*”. Of the remainder, 21 (31%) responded with “No” and the rest with “Do not know”.

*receive no written answer in their attempt to source in a foreign country.”<sup>168</sup> The Study further claims that “[r]efusal to supply is also likely to have a relevant impact because, as opposed to other types of TSCs, these can result in the buyers being deprived of access to specific versions of the product.”<sup>169</sup>*

- (135) This conclusion is, however, not warranted. To begin with, the absence of a response is not necessarily a refusal of supply, as it can be due to a variety of reasons (for example, workload, different priorities, creditworthiness of the buyer). In addition, a refusal to supply based on the potential customers' location may be based on several grounds. Before claiming that an alleged refusal to supply constitutes a TSC, it would have been necessary to rule out these plausible justifications. The Study fails to do so.
- (136) While the retailers cited in the Study claim to have suffered from refusals to supply, it is unclear whether the practices in question are in fact refusals to supply. Presumably the brand manufacturers who allegedly refused to supply would have interpreted their behaviour differently. As such, it is not clear whether refusals to supply are even as prevalent as the Study suggests. Even if there had been such refusals to supply, they may well have been adopted for one of the reasons below.
- (137) First, transport costs from the brand manufacturer could be higher than would be economical and the retailers may have refused to pick up the product themselves. Alternatively, supplying the customer from the brand manufacturer's location in the customer's Member State could be more economical.<sup>170</sup>
- (138) Second, there may be regulatory differences between the Member States such that the product from the other Member State might not conform to requirements regarding product labelling and contents.<sup>171</sup>
- (139) Third, the brand manufacturer may not have sufficient production capacity to be able to supply the retailer.
- (140) Fourth, the brand manufacturer's refusal may simply be the result of a referral to the potential customer's relevant local contact person.
- (141) For the reasons above, what the Study claims to be a refusal to supply may constitute a simple lack of agreement on the terms of a transaction, including on price.

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<sup>168</sup> See the Study, p. 25.

<sup>169</sup> See the Study, p. 25.

<sup>170</sup> On the importance of transport costs, see Section 2.5.

<sup>171</sup> See Section 2.4.



### 4.2.3. Quantity limitations

- (142) According to the Study, “*quantitative quota and promotion limitations are used to discourage cross-border imports to fix prices for retailers and oblige them to source products locally.*”<sup>172</sup> It is not clear, however, on what sources this statement is based, since it does not refer to any particular response to the surveys or any other literature. The Study only references one European and one national antitrust case as examples of this practice.
- (143) Quantity limitations may have a variety of efficiency benefits. As is shown in Appendix A.4.3, quantity restrictions are an important component of the types of complex non-linear tariffs that are used in the consumer goods industry. If the ability of brand manufacturers to use such quantity restrictions is limited, then this type of beneficial second-degree differential pricing might no longer be practised to the same extent. As also explained in Appendix A.4.3, while this may benefit retailers, it will be detrimental to both consumers and brand manufacturers.
- (144) Even if quantity limitations were not sometimes needed to enable beneficial second-degree differential pricing, they may simply be the result of capacity constraints that brand manufacturers face. Brand manufacturers generally have an incentive to ensure that their existing plants are utilised efficiently, implying little excess capacity. This also means that additional cross-border demand would risk exceeding available capacity. As such, brand manufacturers may need quantity limitations to ensure that they can honour their contracts with customers, notably when promotions are concerned, and that they will not be put in a position where they are liable to deliver more output than they can produce. In addition, as brand manufacturers have an incentive to operate plants in such a way as to optimise production and logistics costs, fulfilling orders from outside a plant’s usual sales territory would be logistically inefficient – assuming products are sold from plants, which is not always the case.
- (145) Overall, quantity limitations are generally a benign commercial practice resulting from capacity constraints and/or their necessity to implement second-degree differential pricing. The examples of cases that the Study mentions in which quantity limitations are allegedly used anticompetitively illustrate, however, that such a conclusion would have required an in-depth investigation of the facts of individual cases. As the Study has not attempted to conduct such an investigation, it therefore cannot be relied upon as evidence of the use of quantity limitations as TSCs or related practices.

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<sup>172</sup> See Study, p. 27.

### 4.3. Alleged geographical prevalence of TSCs

- (146) The Study purports to provide further evidence on the prevalence of TSCs in various countries.<sup>173</sup> The problem with such evidence, however, lies once again in the missing distinction between TSCs and benign commercial practices that have valid justifications.<sup>174</sup>
- (147) One common feature of many of the discussions of alleged TSCs in individual countries is the finding that consumers paid more for certain products compared to other countries. While this may be due to differences in wholesale prices, they are not the only factor influencing retail prices, which are set independently by retailers.
- (148) As explained in Section 2, multiple factors impede arbitrage across the internal market. In addition, as explained in Section 2.1, negotiations between manufacturers and retailers may also cover additional services that are compensated through changes in wholesale prices via discounts on the list prices. The differences across Member States' respective retail markets may also affect retail prices independently of the effect of wholesale prices. Differences in retail prices, which are set independently by retailers, do not constitute evidence of the presence of TSCs.
- (149) For Austria, the Study claims that there were “*several news stories of retailers being confronted with TSCs on branded goods of multinational suppliers.*”<sup>175</sup> The source for this claim, however, is an interview with an employee of a retailer that explicitly mentions the regulatory debate concerning possible European regulation of TSCs and the retailers' attempts to promote regulatory action.<sup>176</sup> If so, this may well represent that retailer's point of view but it is clearly not an objective source of information on the existence or prevalence of TSCs.
- (150) In addition, the types of outcomes reported by the retailer in Austria, such as lower purchase prices for one brand manufacturer in Germany, lack of availability of certain brands in Austria and different product composition, may all be justifiable. The Study does not attempt to show whether these practices are benign commercial practices that simply respond to, for example, regulations, consumer preferences or the lack of the retailer's willingness to advertise new products.
- (151) The retailer also produces a few examples of what, according to it, are instances of TSCs. Regarding a brand of washing powder, the retailer claimed that the respective national organisations in Austria and Croatia were unwilling to deliver

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<sup>173</sup> See the Study, Section 3.2.4.

<sup>174</sup> See Section 3.2.

<sup>175</sup> See the Study, p. 30.

<sup>176</sup> See Retail Report (2018), *Geschäfte ohne Geoblocking*, 02.08.2018, <https://retailreport.at/spar-geoblocking-einkauf>, last accessed 09.12.2022.

to the other country. The retailer itself was, however, able to simply purchase the product in Austria, put a Croatian label on it and then deliver it to Croatia. As such, there was not even a cross-border supply restriction that the retailer faced since it could simply buy in one country and then ship the product to another country. In another alleged case of a TSC, the retailer also explicitly acknowledges that differences in a product's composition across countries was simply the result of different production plants making the product. Overall, none of the stories mentioned by the retailer constitutes evidence that the brand manufacturers in question imposed TSCs.<sup>177</sup>

- (152) For Belgium, the Study notes that the Benelux study finds TSCs to be widespread.<sup>178</sup> However, the basis for this finding is again a survey of retailers who simply state that they are subject to TSCs. There is no attempt to distinguish between TSCs and benign commercial practices that have a valid justification. Furthermore, the Study acknowledges that “*Benelux countries still have their own specific rules on labelling, promotional communication and bottle return systems.*”<sup>179</sup> As such, restrictions of retailers to obtain supplies from abroad are not due to practices adopted by manufacturers but are instead the result of national regulatory measures.
- (153) For Croatia,<sup>180</sup> Czechia,<sup>181</sup> Estonia,<sup>182</sup> France,<sup>183</sup> the Netherlands,<sup>184</sup> Portugal,<sup>185</sup> Romania,<sup>186</sup> and Slovakia,<sup>187</sup> the literature provided either no indication of TSCs or that these indications were previously discussed (*e.g.*, the antitrust cases in France or the Study on TSCs in Benelux). The main evidence that the Study claims for the existence of TSCs is therefore based on its own flawed surveys.
- (154) Overall, the evidence on the prevalence of TSCs is far from conclusive. The Study does not provide new information that would suggest that TSCs are widely adopted in the covered Member States.
- (155) Despite the purported outcome of the Study's findings regarding the existence and prevalence of TSCs, the actual evidence provided in the Study does not warrant the conclusion that TSCs are widely, if at all, used by brand manufacturers. Not

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<sup>177</sup> Ibid.

<sup>178</sup> See the Study, p. 31. See also the discussion of the Benelux study in Section 3.4.

<sup>179</sup> See the Study, p. 31.

<sup>180</sup> See the Study, p. 32.

<sup>181</sup> See the Study, p. 33.

<sup>182</sup> See the Study, p. 34.

<sup>183</sup> See the Study, p. 35.

<sup>184</sup> See the Study, p. 37.

<sup>185</sup> See the Study, p. 37.

<sup>186</sup> See the Study, p. 37.

<sup>187</sup> See the Study, p. 38.

only is the Study's methodology biased, but the way that the Study at times appears to define TSCs leads, by design, to legitimate practices being classified as TSCs.

- (156) The Study itself is aware of the weakness of its evidence. It concedes, for example, that “[a]s an overall conclusion, it is difficult to make an assessment of the use of Territorial Supply Constraints strictly speaking [...] as **no hard or documentary evidence is available** besides statements and reporting from both the retailers and wholesaler on the one hand and the manufacturers on the other.”<sup>188</sup> In other words, the evidence produced by the Study is nothing more than a collection of unverified claims made by various stakeholders without any consideration of whether the practices in question are harmful or not.

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<sup>188</sup> See the Study, p. 107 (emphasis added).

## 5. The Study's analysis of the effects of TSCs

### 5.1. The alleged effects of TSCs on wholesale and retail prices

(157) Having explored the existence and prevalence of TSCs, the Study turns to presenting different types of analysis that attempt to shed light on the effects that TSCs may have on wholesale and retail prices. In this section of our report, we summarise the different types of analysis presented in the Study and explain why none of them can produce robust results from which one can derive reliable conclusions about the effects of TSCs. In summary:

- the Study's analysis based on survey and interview data does not produce robust results because it is based on a sample that is not representative of all EU Member States;
- the descriptive analysis based on retail price data does not provide meaningful results because it only observes a variation in prices across countries, but at no point links this variation to the possible existence of TSCs; and
- the econometric analysis needs to be dismissed because it is based on a fundamentally flawed design and suffers from a poor data basis and severe errors in implementation.

#### 5.1.1. Effects of TSCs based on survey and interview data

(158) In Section 5.2.2, the Study attempts to measure the effects of alleged TSCs on retailers, wholesalers, and consumers by relying on information obtained from the online survey and the targeted in-depth interviews.<sup>189</sup>

(159) The key findings based on these two sources are that retailers and wholesalers believe that the prices of products subject to TSCs are higher than they would be without TSCs.<sup>190</sup> Retailers also indicated that the reduction in wholesale prices in the absence of TSCs would be passed on into lower retail prices.<sup>191</sup>

(160) The presented findings are not reliable and, of course, provide no basis to measure the effects of TSCs. This is because of the following reasons.

(161) First, the finding that the elimination of TSCs would lead to a general reduction in prices cannot be supported by economic theory. As set out in Section 3.3, the elimination of TSCs is likely to trigger a convergence towards uniform prices, which are above the prices in the lowest-price market. This implies that while there

<sup>189</sup> See Section 4.1 for a description of the online survey and the in-depth interviews.

<sup>190</sup> See the Study, Table 19, p. 55. In addition, retailers and wholesalers claim that product availability is limited because of TSCs and that absent TSCs they would seek to source their products at the European level to purchase from the cheapest market.

<sup>191</sup> See the Study, p. 59.

are markets that may experience a reduction in prices – as believed by some of the respondents in the Study – there are also markets that may experience a rise in prices following the elimination of TSCs.

- (162) Second, neither the online survey nor the in-depth interviews are based on samples that are representative of all EU Member States. As set out in Section 4.1, both sources overrepresent smaller markets with relatively high prices, such as Sweden, Denmark, or Luxembourg. On the contrary, larger markets with relatively low prices, such as Germany, France, Italy, or Spain are underrepresented. The skewed representation of countries gives rise to the problem of selection bias.

### 5.1.2. Effects of TSCs based on a descriptive analysis of retail prices

- (163) In Sections 5.2.3.1 and 5.2.3.2, the Study presents two types of descriptive statistical analysis in an attempt to address the potential impact of the alleged TSCs on prices more quantitatively.
- (164) The first analysis is based on data from Euromonitor covering retail prices of branded goods in 2017 in eleven Member States.<sup>192</sup> After harmonising the data with respect to product, brand names and package sizes, the analysis compares the retail prices of 53 products across countries. In addition, the Study compares the average unit prices of those products in each country with the price level index for total goods obtained from Eurostat – another database.
- (165) How this analysis could possibly be useful for assessing the impact of TSCs on prices is unclear and is not explained in the Study. Indeed, the Study itself acknowledges that the sample of products “*is not representative of the whole consumer basket nor of the specific product categories. As a result, the interpretation of the results is limited.*”<sup>193</sup> The conclusion of the analysis also does not point to a potential impact of TSCs but merely states that the “*cross-country differences in prices of the observed branded products do not necessarily follow the pattern of the cross-country differences in the general price levels for goods.*”<sup>194</sup> It therefore appears as if the Study itself does not consider its own analysis to measure a potential impact of the alleged TSCs on prices.
- (166) All that is demonstrated in the first analysis is that retail prices vary across countries. While this may be an interesting finding, it tells us nothing about the effects of TSCs. We have explained at length in Section 2 that there are many reasons for such variation in prices across countries, regardless of the potential impact of TSCs. The first analysis has not linked the variation in retail prices to

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<sup>192</sup> Namely, Austria, Belgium, Croatia, Czechia, Denmark, Estonia, France, Portugal, Romania, Slovakia and the UK.

<sup>193</sup> See the Study, p. 64.

<sup>194</sup> See the Study, p. 69.

TSCs and, as a result, does not offer any evidence about potential effects of TSCs on prices.

- (167) The second analysis is based on data on 16 unique products that were collected in the European border regions of Austria/Germany and Croatia/Hungary in the context of the “mystery shopping exercise”. The sample contains information on both brand and private label products.<sup>195</sup> The idea of the analysis is to compare retail prices between neighbouring regions that, while separated by a national border, otherwise resemble each other. By doing so, the Study intends to assess whether TSCs explain differences in observed consumer prices, “*after controlling for other factors such as the competitive environment of the retail market, consumers’ willingness to pay, price elasticity and supermarket business model.*”<sup>196</sup>
- (168) The results of the second analysis are inconclusive at best. Instead of demonstrating that TSCs explain differences in observed consumer prices in border regions, the results of the analysis could likewise be interpreted as showing that TSCs have no effect at all on prices. This is because of the following reasons.
- (169) First, it needs to be reiterated that also the second analysis only compares retail prices across countries and at no point causally links the observed differences in prices to the existence of TSCs. Because variation in retail prices across countries, including between neighbouring areas, can happen for a myriad of reasons, the analysis does not offer any evidence about the potential effects of TSCs.
- (170) Second, the analysis finds that branded but also private label products are on average more expensive in Austria and Croatia. According to the Study, in addition, “*it is not possible to say that the percentage price difference is consistently larger for A-brands compared to private label brands (or vice versa).*”<sup>197</sup> However, private label products cannot possibly be affected by TSCs since retailers control their supply and pricing. The Study itself acknowledges this fact by stating that “*there are no actual TSCs for private label products*” as “*it is impossible for companies to restrict themselves.*”<sup>198</sup>
- (171) As repeatedly emphasised, this simply means that other reasons than TSCs must explain the observed cross-country price differences for private label products. It follows that such other reasons are also likely to explain the observed cross-

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<sup>195</sup> The retail chains visited in Austria/Germany were Lidl, Norma, Penny, and Spar, and the retail chain visited in Croatia/Hungary was Spar (see the Study, p. 17 and p. 70). The corresponding border regions were Salzburg/Freilassing and Nagykanizsa/Cakovec, respectively (see the Study, p. 70). The total number of observations is 29 as prices for some products have been collected in several retail stores. Price differences for each country-pair and brand or private label product were computed in terms of percentage differences relative to Germany and Hungary, respectively.

<sup>196</sup> See the Study, p. 16.

<sup>197</sup> See the Study, p. 71.

<sup>198</sup> See the Study, p. 51.

country price differences for branded products. Instead of reaching this obvious conclusion, however, the Study insists in its flawed reasoning that the cross-country difference in retail prices that it finds does provide evidence about the effects of TSCs. This conclusion clearly cannot be supported.

### **5.1.3. Effects of TSCs based on econometric regression analysis**

- (172) In Section 5.2.3.3, the Study presents the results of an econometric regression analysis that attempts to quantify the extent to which TSCs can explain the observed variation in retail prices across EU Member States. The results of the regression analysis are subsequently used to quantify the consumer savings that would be generated if TSCs were to be eliminated.<sup>199</sup>
- (173) While there are many shortcomings in the presented regression analysis, one fundamental flaw stands out, which alone implies that the analysis cannot offer any meaningful insights on the effects of TSCs – let alone be used as an input to calculate consumer savings in the absence of TSCs – and should therefore be dismissed in its entirety.
- (174) The regression analysis assumes that the observed cross-country variation in wholesale prices is explained by the existence of TSCs. This is simply wrong. As explained in Section 2, wholesale prices can vary for many reasons. What should have been the key objective of the analysis, namely, to disentangle the possible effect of TSCs on wholesale prices from other factors, becomes a simple and clearly incorrect assumption. No credit can be given to the results of an analysis built on such a fundamentally flawed design, whereby the question that the analysis should answer becomes a maintained assumption of the analysis.
- (175) We discuss this point and further flaws in more detail in Section 5.2.2. Before doing so, we give a brief introduction to the technical tool employed by the Study – regression analysis.

#### **5.1.3.1. Overview of regression analysis**

- (176) Regression analysis allows a researcher to estimate the statistical relationship between a dependent variable and a set of other variables, called explanatory variables.<sup>200</sup> In other words, regression analysis aims at uncovering the causal effect of some explanatory variable on the dependent variable by holding constant the other explanatory variables that may influence the outcome.
- (177) The dependent variable in the Study is a measure of the retail price and the explanatory variable of primary interest is a measure of the wholesale price. As emphasised throughout our report, there are multiple potential factors that may cause a change in retail prices, with changes in wholesale prices being only one of

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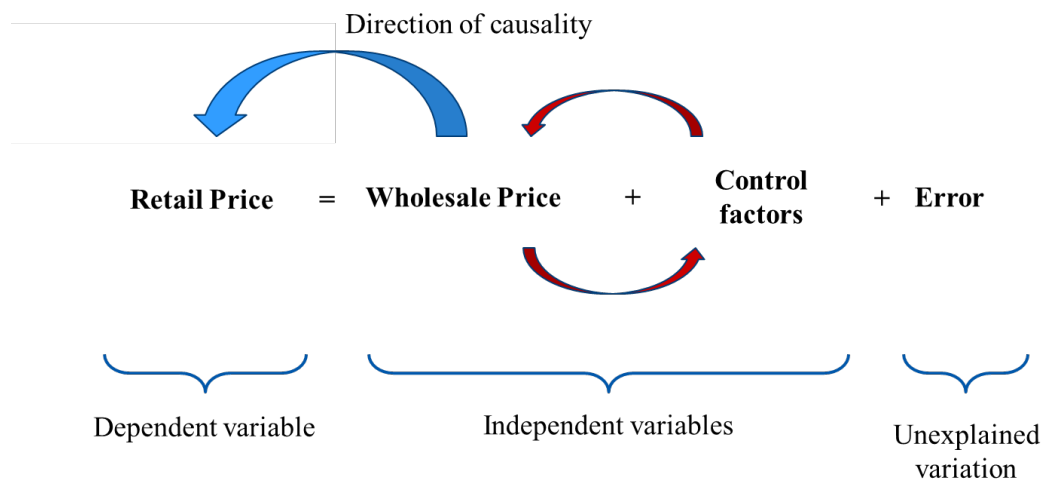
<sup>199</sup> See the Study, Section 5.2.4.2.

<sup>200</sup> For a thorough introduction to regression analysis see, for example, Wooldridge (2013).



those factors.<sup>201</sup> For this reason, the explanatory variable of interest is accompanied by a set of additional explanatory variables, also known as control variables, which attempt to account for changes in retail prices that are not caused by changes in wholesale prices. Figure 4 illustrates the basic structure of regression analysis. On the left-hand side of the equation, the figure shows the dependent variable (the retail price). On the right-hand side of the equation, the figure also shows the wholesale price (the explanatory variable of primary interest), the control factors, as well as any other factor (known as the error term) that is unobservable by the researcher but accounts for the remaining variation in observed retail prices. If implemented properly, regression analysis allows the researcher to disentangle the impact of wholesale prices on retail prices from the impact of such other factors.

**Figure 4:  
Regression analysis**



Source: NERA analysis.

- (178) If relevant control factors that affect retail prices and wholesale prices are not included in the regression analysis, the estimated effects will generally be biased, and the resulting bias is called among economists the omitted variable bias. In many cases, it is very challenging to observe and account for all relevant control factors, and sophisticated econometric methods have been developed to deal with such situations.
- (179) In summary, regression analysis is a tool that, if properly implemented, estimates the causal relationship between two variables. For regression analysis to provide valuable insights, it needs to be carefully designed and empirically implemented, and the results need to be correctly interpreted. As will be discussed below, the

<sup>201</sup> See Section 2. As an example, markets with a higher share of private label products could have relatively low retail prices for branded products. This could be the consequence of the competitive pressure exerted by private label brands rather than low wholesale prices paid by retailers to brand manufacturers.

regression analysis presented in the Study does not satisfy any of these requirements.

### 5.1.3.2. Flaws in the Study's regression analysis

- (180) The Study presents two sets of regression analysis, which differ in the measurement of retail and wholesale prices. Before turning to a discussion of the flaws in the analysis, we briefly describe the data that were used.
- (181) The first set of regression analysis (“product-level analysis”) uses average national retail prices for individual branded products in eight Member States in 2017 based on the Euromonitor database.<sup>202</sup> The Study uses retail prices in five product categories, including confectionery, dairy, personal care, household care, and breakfast cereals. The data on wholesale prices are collected from one retail chain only,<sup>203</sup> and cover purchasing prices in eleven product categories, including beauty and personal care, beer, canned goods, confectionery and snacks, dairy, deep frozen, edible grocery, home care, hot beverages, non-alcoholic drinks, and spirits.<sup>204</sup>
- (182) The second set of regression analysis (“country-level analysis”) uses country-wide retail price level indices for consumer goods in eleven Member States in 2020 based on the Eurostat database.<sup>205</sup> The Study uses four product categories, including bread and cereals, other food, alcoholic beverages, and non-alcoholic beverages.<sup>206</sup> The data on wholesale prices are collected from five retail chains, covering purchasing prices in the same categories as described in the product-level analysis.
- (183) In the following, we explain why the design and the empirical implementation of each set of regression analysis is flawed. As both sets of analysis are essentially subject to the same flaws, neither analysis can accurately estimate the effects of TSCs on prices nor be used as the basis to quantify consumer savings from an elimination of TSCs. This is because of the following reasons.
- (184) First – this is the fundamental flaw – the Study's regression analysis assumes that the observed cross-country variation in wholesale prices is explained by the existence of TSCs. As the Study explains: “*If purchase prices in country A are more expensive compared to the same products from the same supplier in other countries, one can assume that country A is affected by TSCs.*”<sup>207</sup> On this basis,

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<sup>202</sup> Except for soap, in which case the data refer to 2018 prices. The Study does not explain which Member States are used in the analysis.

<sup>203</sup> See the Study, p. 77.

<sup>204</sup> See the Study, p. 72.

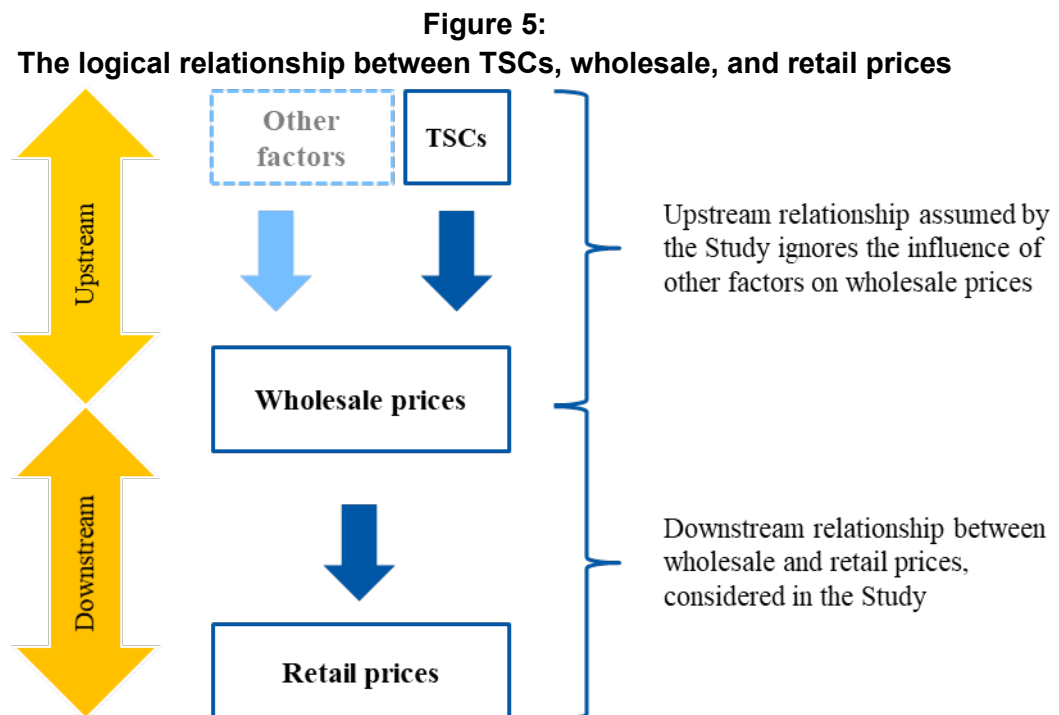
<sup>205</sup> It is also not explained which Member States are used in the second regression analysis.

<sup>206</sup> See the Study, p. 77.

<sup>207</sup> See the Study, p. 72.

by estimating the relationship between wholesale and retail prices, the Study incorrectly concludes to have established a relationship between TSCs and retail prices.

- (185) It cannot be emphasised enough that this approach is bound from the outset to be incapable of estimating the effects of TSCs. This is because, as we have explained at length in Section 2, cross-country differences in wholesale prices may be due to a wide range of factors.<sup>208</sup> By effectively equating cross-country variation in wholesale prices with TSCs, the Study ignores this obvious reality.
- (186) Figure 5 shows the relationship between TSCs, wholesale prices and retail prices. This figure makes clear that TSCs would be only one of a multitude of economic factors that determine the level of wholesale prices, and that TSCs can be expected to affect retail prices only through their effect on wholesale prices. It then becomes apparent that, to estimate the effect of TSCs on retail prices, two logical steps are required. The first step is to disentangle the effect of TSCs on wholesale prices from other potential influence factors. Only once this crucial first step is completed is it possible to turn, in a second step, to quantifying the extent to which a change in wholesale prices caused by TSCs is passed through into retail prices. By simply skipping the first and most important step of the analysis, the Study's approach is fundamentally flawed and cannot possibly generate meaningful results.



Source: NERA analysis.

- (187) Second, even if the objective of the Study had been to estimate a general relationship between wholesale and retail prices, the Study fails to accomplish

<sup>208</sup> As explained in Section 2, relevant factors include, for example, manufacturing and logistic costs, tax rates, regulatory standards on labelling or packaging or rebates and discounts, among others.

even this more modest goal. This is due to a severe mismatch between the wholesale and the retail price data used in the analysis, which renders any meaningful interpretation of the analysis' results impossible.

- (188) As explained above, wholesale prices are collected from five retailers in the country-level analysis and from only one retailer in the product-level analysis. Retail prices, on the other hand, cover prices from a wide range of retailers, either in the form of average prices in the product-level analysis, or in the form of a price index in the country-level analysis. Simply put, the Study posits that changes in prices set by retailers throughout several countries in the European Union can be explained by looking at changes in wholesale prices paid by at most five retailers. It should be immediately apparent that no informative results could emerge from an analysis that effectively assumes that market-wide outcomes are caused by outcomes that are specific to only one or at most a handful of retailers.<sup>209</sup>
- (189) The discrepancy in coverage is also manifested in a mismatch of the products and product categories for which retail and wholesale prices are collected. The Study itself acknowledges this fact by stating that “[t]he product categories in the retailer’s purchasing price data do not perfectly match the product categories in the Euromonitor retail price data” or the “PLI product categories”.<sup>210</sup> When estimating the relationship between wholesale and retail prices, the Study thus links changes in wholesale prices of some products with changes in retail prices of some other products. It is unclear what should be learned from such an analysis. For sure, it tells us nothing about the effects of TSCs on prices.
- (190) Third, the datasets used in the econometric analysis cover only a small subset of products and Member States. They are thus not representative samples for the products consumed by the consumers in the European Union.
- (191) A representative sample should accurately reflect the characteristics and the composition of the population that it is meant to describe. In this respect, the group of products and Member States contained in the sample must not systematically differ from those not included in the sample. If this is not the case, certain products and Member states are overrepresented, resulting in a selection bias that affects the results of the econometric analysis performed on the sample. This means that the results of the presented analysis cannot be trusted because the same analysis would likely yield considerably different results if conducted on a more representative sample.

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<sup>209</sup> The retail price index obtained by Eurostat, for example, is based on a sophisticated sampling and weighting scheme concerning products, geographic areas, and outlet types to ensure that prices are representative (see Eurostat (2012), p. 47). Similar measures have not been undertaken to ensure the representativeness of the wholesale price data.

<sup>210</sup> See the Study, fn. 114 and fn. 121. PLI refers to the price index used in the country-level analysis.

- (192) That the Study's sample cannot possibly be representative becomes apparent from the small number of products and Member States for which retail prices are collected. We understand that the product-level analysis is based on retail prices of 19 confectionery products, 17 breakfast cereals, 8 dairy products, 5 personal care products, and 4 household care products.<sup>211</sup> Retail prices for this small selection of 53 products are not even observed in all the eight Member States considered. Instead, for 40 out of 53 products, retail prices are observed in only two distinct Member States. This means that, rather than being a systematic account of price differences in the retail sector across the European Union, the analysis rests on observing the price of a small number of products in two distinct countries and interpreting the inevitable difference between the "high" price and the "low" price as a measure of impact of TSCs.
- (193) Interestingly, it looks as if data from more Member States could have been used in the Study's country-level analysis.<sup>212</sup> As explained in the Study, the country-level analysis is based on the 11 Member States for which the econometric analysis yielded a statistically significant impact of wholesale prices on retail prices.<sup>213</sup> The analysis could also have been performed based on 14 Member States, but three Member States were dropped from the analysis because no relationship between wholesale and retail prices was found. This however suggests that Member States were included in or excluded from the sample depending on the results that they yielded – hardly a scientific way to proceed. Because it is self-evident that the results would change considerably if the analysis had been conducted including the three additionally available Member States, the Study's results are neither representative nor robust, and can thus not reasonably inform any policy decision.
- (194) Fourth, the construction of the primary explanatory variable of interest is obscure and its econometric estimates are incorrectly interpreted, which raises serious doubts as to the correct implementation of the presented analysis.
- (195) The explanatory variable of primary interest in the two sets of regression analysis is constructed based on the available data on wholesale prices.<sup>214</sup> The Study labels this variable "TSC" to suggest that the estimated effect measures the effect of TSCs on retail prices.<sup>215</sup> This labelling is clearly misleading. As explained above, the

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<sup>211</sup> See the Study, Table 27 – Table 31.

<sup>212</sup> Price data on additional product categories would have also been available on Eurostat (*e.g.*, other food products such as meat, fish, milk, cheese, or eggs; or non-food products such as clothing and footwear).

<sup>213</sup> See the Study, p. 87f.

<sup>214</sup> The wholesale price data that are used to construct the TSC variable in the country-level analysis (and the product-level analysis) are far from being representative of EU-wide purchasing prices. Extending the wholesale price data to a larger and more representative set of retailers, products and Member States would likely considerably change the values of the TSC variable and, consequently, the results obtained from the regression analysis. This fact is also acknowledged by the Study when discussing the results of the country-level analysis. The Study does indeed state that the results "*do not seem to hold for a few other countries that are not part of the sample.*" See the Study, fn. 123.

<sup>215</sup> See the Study, p. 73 and p. 77.

Study's regression analysis arbitrarily assumes that the cross-country variation in wholesale prices is explained by TSCs, and what it really estimates is the effect of a change in wholesale prices on retail prices. Just labelling the variable "TSC" does not alter the nature of the analysis.

- (196) In the product-level analysis, we understand the TSC variable to be based on the proportion of products within a country that have significantly higher wholesale prices than in the other Member States in the sample. This is the case if the price of the product is at least 50% higher than the lowest price included in the data. The underlying assumption is that countries with significantly higher wholesale prices than the other available countries must be affected by TSCs. No explanation is given as to why the threshold is set at the level at which it is set. As we understand it, the TSC variable is then measured as the difference in the share of expensive products of a country relative to the average share of expensive products in the considered Member States. Little further explanation on the construction of the variable is provided and it remains unclear how exactly it is computed.<sup>216</sup>
- (197) The estimated coefficient of the "TSC" variable in the Study's preferred model is 0.943. The Study interprets this coefficient as follows: "*purchase prices that are 1% higher compared to the purchase prices for the EU average are associated with retail prices that are 0.943% higher than the EU average*".<sup>217</sup> This interpretation is inconsistent with the Study's explanation of how the TSC variable is constructed. If the description of the TSC variable in the Study is accurate, an increase in the TSC variable by 1% does not correspond to an increase in wholesale prices compared to the European average but to an increase in the share of relatively expensive products in a country compared to the European average. What exactly could possibly be learned from estimating such an effect is unclear. In any case, based on our understanding of the description of the TSC variable in the Study, the interpretation and construction of the TSC variable are mutually exclusive, which raises serious doubts about the quality and validity of the results' documentation.
- (198) In the country-level analysis, the "TSC" variable is given by the difference of the average wholesale price of a Member State relative to the average wholesale price in all considered Member States. The underlying assumption is that a country with relatively higher average wholesale prices is more strongly affected by TSCs.

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<sup>216</sup> For example, it is not exactly clear from the description in the Study whether the TSC variable is constructed using the absolute difference, the percentage difference, or the ratio of the two values. It is further not exactly clear whether the TSC variable varies at the product-country level or only at the country level. On the one hand, the Study states on p.73 that "[t]he result is a variable that measures the extent to which a particular country is affected by TSCs relative to all other countries", which suggests that it varies at the country level. On the other hand, the Study describes on p.74 that " $\Delta TSC_{i,c}$  is the relative difference in the measure of TSCs for product  $i$  in country  $c$  (relative to its EU average)", which suggests that it varies at the product-country level.

<sup>217</sup> See the Study, p. 74.

Before performing the regression analysis, the TSC variable is log-transformed, that is, it is measured in terms of the natural logarithm.

- (199) On this basis, the Study concludes that its estimation of the relationship between retail and wholesale prices would be in line with “*industry-wide pass-through rates*” identified by previous literature.<sup>218</sup> As it turns out, this conclusion is clearly based on a confusion between the concepts of pass-on *elasticity* and pass-on *rate*.<sup>219</sup> Indeed, while the pass-on rate measures the extent to which an absolute increase/decrease in wholesale prices (*in EUR*) causes an absolute change in retail prices (*in EUR*), the pass-on elasticity measures the extent to which a percentage increase/decrease in wholesale prices (*in %*) causes a percentage change in retail prices (*in %*). The interpretative error that the Study commits is that it compares its own pass-on estimate, which is a pass-on elasticity, with pass-on estimates from the economic literature, which are pass-on rates. However, the pass-on rates and pass-on elasticities are not directly comparable. Indeed, it can be shown that, mathematically, the pass-on rate corresponds to the pass-on elasticity multiplied by the ratio of retail prices to wholesale prices.<sup>220</sup> This implies that the estimated pass-on elasticity of 0.86 corresponds to a pass-on rate that is in fact much larger, depending on the ratio between retail and wholesale prices.<sup>221</sup> As a result, the economic literature that is referenced as evidence of the plausibility of the Study’s results does in fact contradict them. To see the significance of this difference, consider, for example, a ratio of wholesale to retail prices of 0.5. The estimated pass-through elasticity of 0.86 would then correspond to a pass-through rate of 1.72 (or 172%). This is substantially larger than the values reported in the cited literature. It therefore seems that the Study commits a considerable mistake when interpreting the TSC variable and assessing the plausibility of its results.
- (200) Fifth, the level of aggregation is too high to meaningfully measure an effect of wholesale on retail prices.
- (201) Retail prices vary at the level of the Member State and product in the product-level analysis and at the level of the Member State and product category in the country-level analysis.<sup>222</sup> We understand that wholesale prices are even further aggregated and vary only at the country level, at least in the country-level analysis. Retail market competition, however, typically takes place at both the national and the more local level, with retailers competing closely with stores that are close to each other.<sup>223</sup> As a result, retailers often engage in local pricing and differentiate prices

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<sup>218</sup> See the Study, p. 74 and p. 87.

<sup>219</sup> See RBB Economics (2014), p. 11.

<sup>220</sup> See RBB Economics (2014), p. 11.

<sup>221</sup> See the Study, p. 86.

<sup>222</sup> See the Study, p. 73 and p. 77.

<sup>223</sup> See Bagnat, Cornille, Dhyne, and Robert (2009).

and product ranges across different areas within Member States.<sup>224</sup> Because of the level of aggregation of its data, the Study's analysis cannot capture such local sources of variation in market outcomes.

- (202) Furthermore, the degree of pass-on of wholesale into retail prices is also expected to vary across products and product categories, for example, because of varying consumer tastes and competitive dynamics. Using wholesale price data that are aggregated across products and vary only at the country level ignores this fundamental insight and therefore oversimplifies reality, with the serious risk of generating biased results.
- (203) Several of the control variables that are meant to account for product market competition used in the Study do not show the signs that would be expected from an economic point of view. For example, in both sets of regressions, the number of retail chains are associated with a positive effect on retail prices.<sup>225</sup> Typically, however, a higher number of retailers or outlets should suggest tougher competition and therefore lower prices.
- (204) In summary, the Study's regression analysis is not only incapable by design to quantify the impact of TSCs on retail prices, but it also fails at the more modest goal of estimating the impact of wholesale prices on retail prices. Indeed, the Study's regression analysis is based on the fundamentally flawed assumption that the variation in wholesale prices can be explained by TSCs. In addition, it also suffers from a poor data basis and several implementation errors. No meaningful results could emerge from such an analysis. Unfortunately, the Study does not only present these results, but it draws on them to derive an estimate of the consumer savings that would allegedly arise from the elimination of TSCs. This is what we turn to discussing next.

## 5.2. The alleged effects of TSCs on consumer expenditures

- (205) In Section 5.2.4, the Study discusses the impact of eliminating TSCs on consumer expenditures. One of the Study's key results is that consumers would allegedly gain about €14.1bn from the elimination of TSCs, or 3.5% on their purchases of "bread and cereals", "other food", "alcoholic beverages" and "non-alcoholic beverages" in 16 Member States for which VVA had retailer purchase price information.<sup>226</sup> As acknowledged by the Study, this estimate is the mid-point of a very wide 90% confidence interval ranging from €0.5bn to €27bn. Because of the considerable uncertainty in arriving at the €14.1bn estimate, the Study cannot rule

<sup>224</sup> See Dobson and Waterson (2005).

<sup>225</sup> See the Study, Table 33, p. 76 and Table 34, p. 79. Furthermore, the inclusion of the retail HHI, as a measure of market concentration, as a control variable with retail prices as the dependent variable is generally problematic. The reason is that the former is based on the market shares of the retailers in a Member State. These, however, depend on the prices set by retailers which leads to a bias in the estimates that can substantially undermine the results of the regression (see e.g., Ciapanna and Rondinelli (2014)).

<sup>226</sup> See the Study, p. 89f.

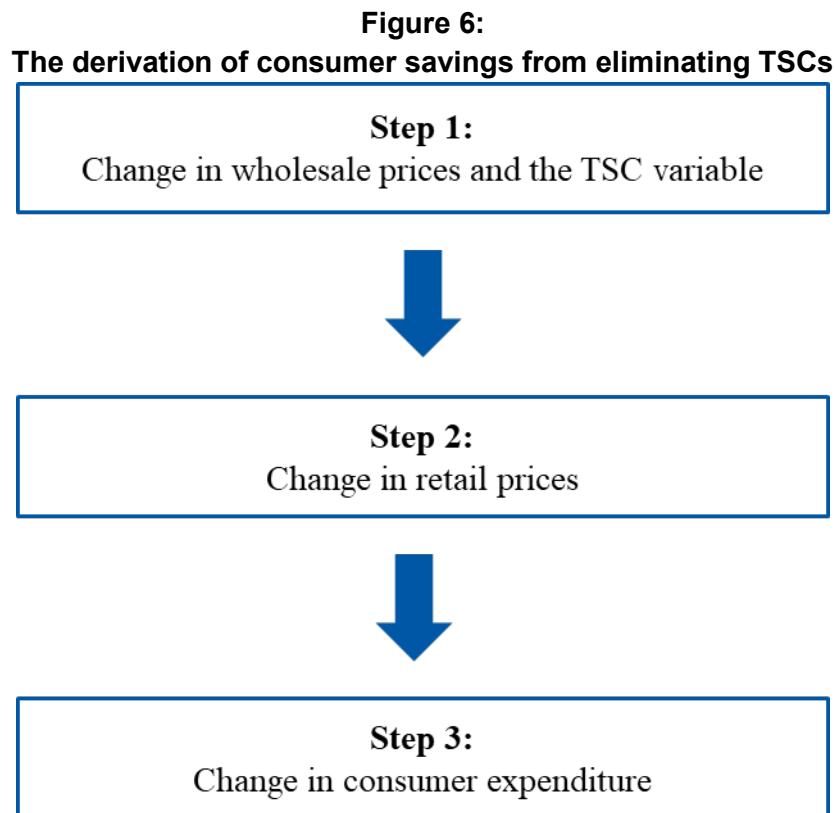


out that consumer savings from an elimination of TSCs are only 3.5% of the presented key result of €14.1bn. Accordingly, the presented estimate of consumer savings of €14.1bn cannot and should not carry any weight for policy decisions.

- (206) To arrive at the estimate of €14.1bn, the Study uses the results from its country-level regression analysis, which we discuss in Section 5.1.3.2 above. Because the country-level regression analysis is fundamentally flawed, this alone should invalidate any estimate of consumer savings that is based on it.
- (207) The Study's calculation of consumer savings is also fundamentally flawed in that it relies on the assumption that, in the absence of TSCs, all retailers in the relevant Member States would pay the lowest wholesale price observable in the dataset (plus an additional margin of 10%). However, both basic common sense and economic theory make it clear that this assumption cannot be right.
- (208) Before discussing these points in more detail in the following sections, we provide a short overview of how the Study derived its consumer savings estimate.

**5.2.1. Derivation of consumer savings**

- (209) To derive the alleged amount of consumer savings arising from the elimination of TSCs, the Study proceeds in three steps, which are summarised in Figure 6.



Source: NERA analysis.

- (210) In the first step, the Study determines the change in wholesale prices following the elimination of TSCs. It assumes that retailers in a given country would start

importing from the lowest-price country in the Study's dataset. It is also assumed that, in doing so, retailers incur an extra cost of 10% of the wholesale price in the lowest-price country to account for import costs, potential relabelling or additional processing.<sup>227</sup> This exercise results in an average reduction in the TSC variable across the eleven considered Member States of 8.8%.<sup>228</sup>

- (211) In the second step, the results from the country-level regression analysis are used to estimate how the new values for the TSC variable translate into a change in retail prices. The Study's baseline results from the country-level analysis suggest that a 1% reduction in the TSC variable is associated with a 0.859% reduction in retail prices.<sup>229</sup> This finding is used to compute the alleged impact of the removal of TSCs on retail prices. Given the finding of an average reduction in the TSC variable of 8.8%, the Study estimates an average reduction in retail prices of 7.6%.<sup>230</sup>
- (212) In the third step, the estimated reduction in retail prices is multiplied by the total consumer spending reported by Eurostat for all eleven Member States and all four product categories that are included in the country-level analysis.<sup>231</sup> This yields the baseline estimate of €14.1bn in consumer savings from an elimination of TSCs.<sup>232</sup>

### 5.2.2. Flaws in the Study's analysis of consumer savings

- (213) There are multiple flaws in the Study's estimation of consumer savings from the elimination of TSCs. In consequence, the presented estimate of €14.1bn does not constitute a meaningful measure of possible consumer savings and should therefore not be used as a basis for policy discussions.
- (214) First, the key input for the calculation of consumer savings results from the country-level regression analysis discussed above. In particular, after the counterfactual value of the TSC variable has been determined, the causal effect of the change in the TSC variable on retail prices is estimated by using the results from the country-level analysis. However, as we explained above, the country-

<sup>227</sup> Retailers therefore import only if the effective wholesale price including the extra costs remains below the price in the domestic market.

<sup>228</sup> See the Study, p. 86.

<sup>229</sup> See the Study, p. 79 and p. 86.

<sup>230</sup> *I.e.*,  $-8.8\% \times 0.859 = -7.6\%$ . See the Study, p. 86.

<sup>231</sup> See the Study, p. 86ff.

<sup>232</sup> As we have previously pointed out, the Study does not specify which eleven Member States are included in the country-level analysis. Table 32 in the Study (p. 68), which is based on Euromonitor data, lists eleven countries, but it is unclear whether these countries have been included in the country-level analysis. The consumer savings estimate of €14.1bn and the reduction in retail prices by 7.6% implies total consumer expenditures of €185.5bn. The consumption expenditures in the eleven Member States listed in Table 32, for the four relevant product categories in 2020, however, add up to €257.3bn. (Source: see data on nominal expenditures in [https://ec.europa.eu/eurostat/databrowser/view/prc\\_ppp\\_ind/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/prc_ppp_ind/default/table?lang=en), last accessed 09.12.2022).

level analysis cannot be used to estimate the causal effect on retail prices.<sup>233</sup> In fact, the Study itself cautions against using the results from the country-level analysis, stating that “*the findings cannot be interpreted as necessarily implying a causal relationship*”.<sup>234</sup> Yet, the Study proceeds to use and interpret the biased findings from the country-level analysis in a causal manner, disregarding its own warning.

- (215) Second, the Study assumes that, in the absence of TSCs, each retailer in the relevant Member States would pay the lowest currently observable wholesale price for a given product, plus an additional margin of 10%.
- (216) By making this assumption, the Study circumvents what should be the main objective in the estimation of consumer savings, namely, to estimate the counterfactual level of wholesale prices in the absence of TSCs. The fundamental challenge in addressing this type of question is that the factual wholesale prices, potentially influenced by TSCs, can be observed but the counterfactual wholesale prices cannot, and must therefore be estimated. This can be considered a “missing data” problem because no data are available for the counterfactual scenario.<sup>235</sup>
- (217) Had the Study properly estimated the effect of TSCs on wholesale prices in the country-level regression, it could have easily estimated the change in wholesale prices following an elimination of the alleged TSCs. However, because the Study failed to do so, as we criticise in Section 5.1.3.2, it needs to “assume away” the problem of estimating wholesale prices in the counterfactual scenario without TSCs. The assumption that is imposed, however, is clearly incorrect.<sup>236</sup>
- (218) As explained in more detail in Appendix A, economic theory shows that if TSCs existed and they were eliminated, countries with low prices would start to experience higher demand, in response to which prices would increase. As a result, if TSCs existed and they were eliminated, it is likely that there would be an overall readjustment in wholesale prices – not a sudden drop of all wholesale prices to the level of the lowest observed price. By making such an erroneous assumption, the Study overestimates consumer savings in high-price countries and completely ignores higher consumer expenditures in low-price countries.

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<sup>233</sup> See Section 5.1.3.2.

<sup>234</sup> See the Study, p. 75. While the statement refers to the product-level analysis, on p. 78, referring to the country-level analysis, it is stated that “*the regression findings are subject to similar caveats compared to the ones presented for the regressions on the product-level retail price data.*”

<sup>235</sup> Economists have long engaged with this type of problem, developing statistical methods and economic theory to solve it. For an introduction to counterfactual analysis in econometrics, see, for example, Angrist and Pischke (2009).

<sup>236</sup> As explained in Section 5.1.3.2, the wholesale price data were collected from five retailers and suffer from poor product and Member State coverage. This implies that the country with the lowest observed wholesale prices can only be among the Member States that are included in the wholesale price dataset. It is very well possible that wholesale prices are cheaper in another Member State that is not included in the analysis. This fact is ignored by the Study.

### 5.2.3. Uncertainty in the Study's estimates of consumer savings

- (219) Besides being biased, the estimate of consumer savings of allegedly €14.1bn is also subject to considerable uncertainty. As explained above, the baseline result from the country-level analysis indicates that a 1% reduction in the TSC variable is associated with a 0.859% reduction in retail prices.<sup>237</sup> This estimated reduction in retail prices of 0.859% is the so-called point estimate of the regression, and, as the outcome of any regression model, it is subject to statistical uncertainty.
- (220) The range in which the true value of a statistically estimated parameter falls is denoted by the confidence interval.<sup>238</sup> For example, if a regression estimation of the pass-through rate of wholesale into retail prices were to be repeated multiple times based on newly drawn random samples, the 90% confidence interval indicates that the true (population) pass-through rate would fall in that interval in 90% of cases. The wider the confidence interval for a given confidence level, the greater the statistical uncertainty.
- (221) As it turns out, the confidence interval for the estimate of the TSC variable in the country-level regression is very wide, indicating a high degree of statistical uncertainty. More specifically, the confidence interval around the baseline parameter estimate of 0.859 at the 90% confidence level ranges from 0.0242 to 1.693.<sup>239</sup> This suggests that, under the assumption of 10% extra costs for importing abroad, estimated consumers savings could be as low as €0.5bn.<sup>240</sup> The Study therefore cannot confidently rule out that its consumer savings estimate may be only roughly 3.5% (€0.5bn/€14.1bn) of its baseline estimate.
- (222) Other factors can amplify this uncertainty even further. For example, as explained above, the Study assumes that retailers pay an extra cost of 10% of the lowest wholesale price if they source from abroad. Estimated consumer savings vary even more widely depending on this assumed extra cost.<sup>241</sup>
- (223) In summary, even if one ignores all the shortcomings and flaws in arriving at the final estimate, it is not possible to draw any reliable conclusions about the effects of eliminating TSCs on consumers savings because of the considerable degree of uncertainty in the Study's estimates.

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<sup>237</sup> See the Study, p. 79 and p. 86.

<sup>238</sup> See *e.g.*, Wooldridge (2013), Chapter 4.3.

<sup>239</sup> See the Study, p. 87.

<sup>240</sup> See the Study, p. 87.

<sup>241</sup> Many factors can affect the costs from sourcing abroad, for example, environmental costs due to long-hauling goods across the EU or FTE costs to manage extra shipments (as more people need to work in logistic centres, warehouses, or distribution centres).

## 6. Conclusion

- (224) We found that the Study starts from a flawed assumption and makes no serious effort at distinguishing manufacturers' practices supposedly aimed at artificially segmenting the Internal Market – the only practices that would deserve the label of TSCs – from benign commercial practices. On the contrary, the Study further expands the already bloated range of manufacturer practices under scrutiny by adding to alleged TSCs what the Study calls “TSC-related practices.”
- (225) In addition to neglecting the possible reasons for the observed manufacturer practices, we found that the survey and interview evidence presented in the Study is not representative for the EU retail sector as a whole and focuses instead – by design or non-response – on countries, product categories and customers that overstate possible exposure to alleged TSCs.
- (226) The Study's analysis of the impact of TSCs on prices and consumer expenditures is equally fraught with many data problems, as well as conceptual and methodological flaws. Its fundamental conceptual flaw consists in turning what should have been a key objective of the analysis (namely, to investigate the prevalence of TSCs and how TSCs influence wholesale prices) into the maintained assumption in the Study's regression analysis that the variation in wholesale prices observed across Member States is due to the existence of TSCs.
- (227) Evading the key question to investigate, the analysis then contents itself with the more modest objective of exploring the extent to which wholesale prices are passed on into retail prices. Despite the obstacles to fully replicating the Study's analysis that its poor documentation posed, we could identify the following four main issues in its empirical implementation:
- First, the econometric analysis uses data that suffer from a poor coverage of products and Member States.
  - Second, while the retail data cover market-level outcomes, the wholesale data cover only up to five retailers, thereby greatly exaggerating their potential role in explaining market-wide phenomena.
  - Third, both the construction and interpretation of the variables used to capture wholesale prices in the econometric analysis are inconsistent and misleading. The Study confuses the concepts of pass-through elasticity and pass-through rate, mistakenly concluding that its results (which are expressed as pass-through elasticities of wholesale into retail prices) are in line with the results of the cited economic literature (which however are expressed as pass-through rates). Translating the Study's estimated pass-through elasticities into pass-through rates yields implausibly large figures.
  - Fourth, the level of aggregation in the Study's data cannot accurately account for the impact of retail market competition on prices.

- (228) On this basis, the Study's estimates of the impact of TSCs on retail prices are clearly arbitrary and cannot be used to infer the impact of TSCs on consumer expenditures. Indeed, the Study effectively assumes that, after the removal of TSCs, wholesale prices would collapse to the level of the Member State exhibiting the lowest wholesale prices. However, this assumption is in sharp contrast with economic theory and common sense, according to which, if a low-price Member State started to experience an increase in demand due to customers redirecting their purchases, prices in that Member State would increase. This assumption is also bound to grossly overstate any consumer savings, by overstating the savings of consumers located in high-price Member States and ignoring the higher expenditures of consumers located in low-price Member States.
- (229) The Study's main result is that the removal of TSCs would result in consumer savings of €14.1bn. This estimate must be dismissed because to derive it, the Study not only erroneously assumes that, after the removal of TSCs, wholesale prices collapse to the level of the Member State exhibiting the lowest wholesale price but also: (i) takes this erroneous estimate of counterfactual wholesale prices and multiplies it with an erroneously estimated pass-on elasticity leading to an erroneous estimate of counterfactual retail prices; and (ii) multiplies the erroneous estimate of counterfactual retail prices by total consumer spending. The Study's main result is therefore based entirely on a combination of unrealistic assumptions and erroneous estimations. Such an approach necessarily yields an incorrect result.
- (230) The Study's main result is also subject to considerable uncertainty. The estimates of the consumer savings are very imprecisely estimated. This means that even if one ignored all the shortcomings and flaws in arriving at the final estimate, it would clearly not be possible to draw any reliable conclusions about the effects of eliminating TSCs.
- (231) For all these reasons we conclude that the results the Study arrives at regarding the prevalence and the impact of alleged TSCs in the EU retail sector are unreliable and that no policy conclusion should be drawn from them.

## Appendix A. Welfare economics of differential pricing

- (232) The economic literature uses the expression “price discrimination” to refer to three situations:
- First-degree price discrimination, also known as personalised pricing, in which a firm can charge each customer his or her exact willingness to pay.
  - Second-degree price discrimination, also known as versioning, in which a firm offers its customers a menu of different options and the customers select the one they prefer.
  - Third-degree price discrimination, also known as differential pricing, in which a firm offers distinct customer groups different prices.
- (233) While first-degree price discrimination is mostly of theoretical interest, the other two types of price discrimination are of practical relevance as well. In addition, it may also be possible to combine second- and third-degree price discrimination by offering distinct menus of options to distinct customer groups.
- (234) In Appendix A.1, we will consider the literature on monopolistic differential pricing without strategic retailers. While ignoring some of the complexities present in practice, this scenario reflects many of the important issues at stake. In Appendix A.2, we explain how the analysis of TSCs differs from a more abstract consideration of differential pricing. In Appendix A.3, we consider oligopolistic differential pricing. In Appendix A.4, we again consider monopolistic differential pricing with retailers acting strategically rather than passively.
- (235) Overall, the literature shows that uniform prices tend to lie somewhere between the high and low prices set under differential pricing. In fact, as an exception to this general finding, uniform prices may even be higher than differential prices. This means that if TSCs existed and led to price differences across countries, then their removal would either increase prices in some countries and decrease them in others or increase them in all relevant countries.

### A.1. Monopolistic differential pricing

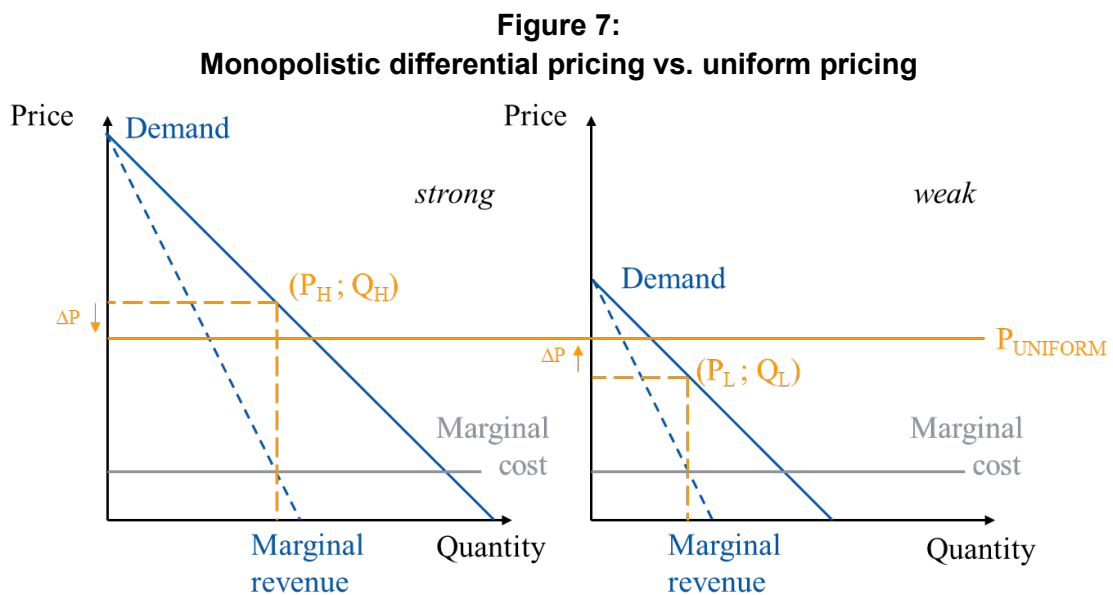
- (236) Monopolistic differential pricing refers to a monopolist setting different prices in different markets. The typical assumption is that the monopolist sells directly to final customers. This assumption is of course a simplification when analysing the behaviour of brand manufacturers, who typically sell to retailers or even wholesalers and not to consumers. Under the assumption of a perfectly competitive retailing (and wholesaling) industry in each market, however, it is possible to abstract from the vertical structure of the consumer goods industry.<sup>242</sup> In such a setting, retailers are passive, simply passing on the prices set by the brand

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<sup>242</sup> Indeed, this is precisely the approach adopted for most of the discussion in the DICE report and in the RBB report.

manufacturers to their own customers.<sup>243</sup> Despite this simplifying assumption, some lessons can be obtained from such an analysis.<sup>244</sup>

- (237) Under monopolistic differential pricing, the monopolist sets distinct prices in two (or more) distinct markets, based on its common cost of production and the demand curves it faces in each market. Under uniform pricing, the monopolist sets the same price in each market.
- (238) The following Figure 7 shows the demand faced by a monopolist in two markets. On the left-hand side is the “strong” market, in which the price exceeds the uniform price. On the right-hand side is the “weak” market, in which the price is below the uniform price.



Source: NERA analysis.

Notes: The horizontal axes in the two graphs above measure the total quantity,  $Q$ , of a product sold in the respective market. The vertical axes in the two graphs above measure the price,  $P$ , charged in the respective markets. Marginal revenue is the additional revenue earned by the monopolist when increasing its quantity by one unit. Since prices fall as quantity increases, marginal revenue curves lie below the demand curve. To maximise its profits in a market, a monopolist produces a quantity such that marginal revenue equals marginal cost. The quantity sold in the strong and weak market is denoted  $Q_H$  and  $Q_L$ , respectively. The associated prices are  $P_H$  and  $P_L$ , respectively.  $P_{UNIFORM}$  denotes the price set by the monopolist when facing the sum of the demand of the high- and low-demand market.

- (239) The monopolist prefers differential pricing to uniform pricing. Differential pricing allows the monopolist to maximise its profit in each individual market. If instead it were forced to set the same price in each market, then this uniform price would almost certainly not coincide with the optimal monopoly price in each market that

<sup>243</sup> This assumption is relaxed in Section A.3.

<sup>244</sup> We will extend this analysis to incorporate the vertical structure in Section A.4.



it faces. Consequently, the monopolist earns a lower profit when it sets a uniform price compared to differential pricing.

- (240) For consumers, the effect of differential pricing is less clear. For a given quantity, different consumers face different prices. If two consumers, one each from the two markets, exchanged the product, there would be gains from trade. Under uniform pricing and with the same quantity, no such gains from trade exist. Hence, for a given quantity, aggregate consumer and social surplus is greater under uniform pricing. For differential pricing to increase social and consumer welfare, it is generally necessary that it leads to an increase in the quantity produced.<sup>245</sup>
- (241) If the market with the low price under differential pricing is small, then the monopolist may optimally set the uniform price at the level of the high price and thereby forego sales in the weak market completely.<sup>246</sup> If the weak market is served under differential pricing, then, in this case, uniform pricing leads to a reduction of quantity. Since the uniform price is the same as the high price under differential pricing, consumers in the strong market are indifferent. Consumers in the weak market are harmed since they no longer buy the product.
- (242) If both markets continue to be served under uniform pricing, then the total quantity produced is, however, unaffected by whether prices are set uniformly or by differential pricing when demand is linear.<sup>247</sup> Since output increases are necessary for welfare to increase, this means that, under linear demand, differential pricing harms social welfare, unless uniform pricing leads to some markets not being served.
- (243) When demand is non-linear, output may either increase or decrease due to differential pricing.<sup>248</sup> Output increases are, however, not necessarily sufficient for welfare to also increase due to differential pricing.

## A.2. TSCs, trade costs and arbitrage

- (244) While the literature on differential pricing typically compares unconstrained prices to a uniform price, the removal of alleged TSCs cannot be expected to lead to uniform prices. This applies even if brand manufacturers' production costs are the same across Member States. The reason is that the literature assumes perfect

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<sup>245</sup> Schmalensee (1981) showed this to be the case for independent demands across markets and constant marginal costs. This result has been extended by Varian (1985) and Schwartz (1990). Galera, Garcia-del-Barrio and Mendi (2019) point out that these results are typically based on the assumption that preferences are quasi-linear, which implies that there are no income effects. If this assumption is relaxed, differential pricing may also be welfare-increasing even if total quantity is not increased.

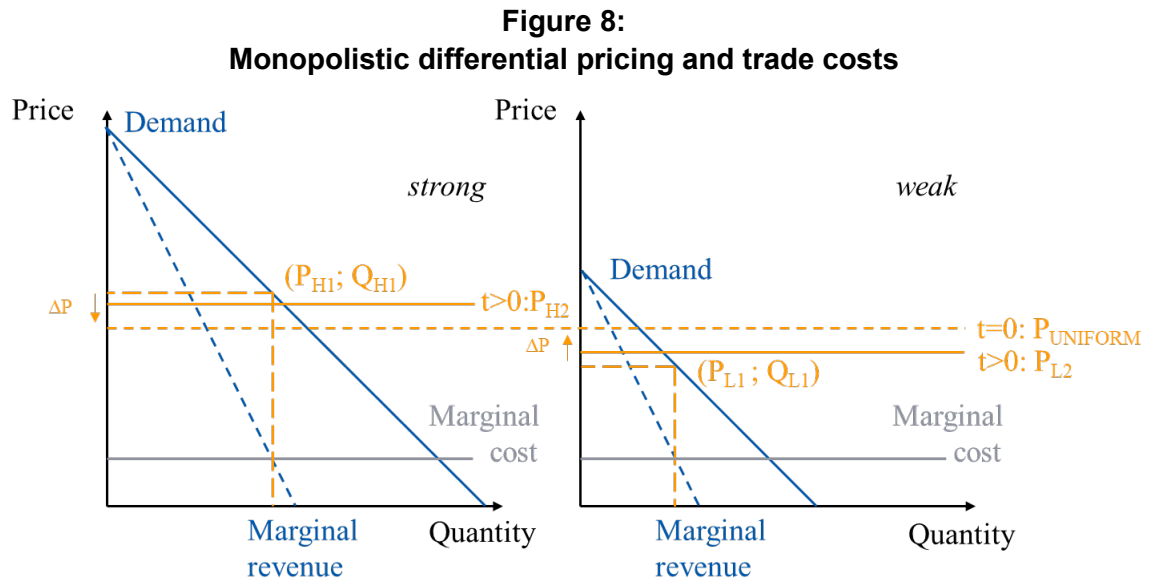
<sup>246</sup> Kaftal and Pal (2008) provide conditions for determining how many markets are served and assessing welfare under uniform pricing when demand is linear.

<sup>247</sup> See Schmalensee (1981).

<sup>248</sup> See Cowan (2007) as well as Aguirre, Cowan and Vickers (2010).

arbitrage, whereas, in practice, arbitrage across markets is limited by transport costs and other trade constraints.<sup>249</sup>

- (245) If the trade barriers are larger than the price differences under differential pricing, then the removal of TSCs will not affect prices. If the trade barriers are smaller than the price difference under differential pricing, the removal of TSCs will lead to a convergence of prices – if all markets continue to be served. Only in the absence trade barriers would the removal of TSCs be expected to lead to uniform prices. This is shown in Figure 8 below.



Source: NERA analysis.

Notes: The horizontal axes in the two graphs above measure the total quantity,  $Q$ , of a product sold in the respective market. The vertical axes in the two graphs above measure the price,  $P$ , charged in the respective markets. Marginal revenue is the additional revenue earned by the monopolist when increasing its quantity by one unit. Since prices fall as quantity increases, marginal revenue curves lie below the demand curve. To maximise its profits in a market, a monopolist produces a quantity such that marginal revenue equals marginal cost. The quantity sold in the strong and weak market is denoted  $Q_{H1}$  and  $Q_{L1}$ , respectively, when arbitrage is not possible. The associated prices are  $P_{H1}$  and  $P_{L1}$ , respectively.  $P_{UNIFORM}$  denotes the price set by the monopolist when facing the sum of the demand of the high- and low-demand market and no arbitrage costs. The transport costs to move the good from the weak market to the strong market are denoted by  $t$ . The resulting prices when transport costs are  $t$  are denoted by  $P_{H2}$  and  $P_{L2}$  in the strong and weak market, respectively.

- (246) Thus, when applying the results of the economic literature on differential pricing to the question of the removal of alleged TSCs, the prediction is not that manufacturers will be induced to charge a uniform price across markets, but more loosely that there will be a tendency for prices to converge, insofar as (remaining) trade barriers allow for it.

<sup>249</sup> For the relevance of transport costs, see Section 2.5.

### A.3. Oligopolistic differential pricing

- (247) In general, the finding that the uniform price lies between the high and low differential prices continues to hold when differential pricing is practised by multiple firms.<sup>250</sup> If two symmetric firms compete in a strong and a weak market, however, whether output increases due to differential pricing depends on both the market-level price elasticities and the cross-price elasticities of demand. Unlike in the monopoly case, differential pricing may reduce the profit of the firms compared to a uniform pricing case, resulting in higher consumer welfare.<sup>251</sup>
- (248) There are some exceptions to the result that the uniform price lies between the differential prices. We illustrate this with a hypothetical example with two firms: H and L.<sup>252</sup> Both firms have the same marginal cost of production. Firm H offers a product with a high quality, while firm L offers a product with a low quality.<sup>253</sup> There are two markets, say, Belgium and the Netherlands. We assume that consumers in the Netherlands do not value the quality of the product and only look at the price of the products. Consumers in Belgium value quality but differ in how much they value the high-quality product.<sup>254</sup>
- (249) Under differential pricing, in the Netherlands, consumers (and hence retailers) only decide based on the price of the products and hence both firms will set their price equal to marginal cost.<sup>255</sup>
- (250) In Belgium, however, competition is less intense. The high-quality firm will have positive sales even if it charges a higher price than firm L because Belgian consumers value the higher quality. As a result, the high-quality firm will set a price above its marginal cost. Firm L will likewise set a price above marginal cost since those consumers who do not put a high value on quality would prefer the lower quality product, albeit at a lower price than that set by firm H.

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<sup>250</sup> See Holmes (1989). See also Dobson and Waterson (2005).

<sup>251</sup> Note that there is also a literature on the use of differential pricing by firms to exclude competitors from the market, see Fumagalli, Motta and Calcagno (2018), Chapter 2. As the concerns related to TSCs mostly relate to the customers of brand manufacturers, rather than rival brand manufacturers, we do not discuss that literature further.

<sup>252</sup> This example is based on Corts (1998). While the example itself is hypothetical, Nevo and Wolfram (2002) have shown that the models of oligopolistic differential pricing describe the effects of coupon-based differential pricing for breakfast cereals quite well. In their empirical model, it is found that the shelf prices are higher during periods when coupons are used. Since in the absence of coupons, the shelf price corresponds to the uniform price, models of monopolistic differential pricing (Appendix A.1) would have predicted the shelf price to increase in periods of couponing.

<sup>253</sup> One might think of the high-quality product as being produced by a multinational brand manufacturer and the low-quality product as being a private label product.

<sup>254</sup> This is thus a case of vertically differentiated products, in the sense that customers in Belgium all agree that the high-quality product is better than the low-quality product, but they disagree about the extent to which the high-quality product is better than the low-quality product. See Belleflamme and Peitz (2015), Chapter 5.3.

<sup>255</sup> This is the well-known outcome of Bertrand competition with homogeneous products. See Corts (1998) as well as Belleflamme and Peitz (2015), Chapter 3.1.1.

- (251) Next, we consider uniform pricing by both firms. Starting from the differential prices set by both firms in Belgium, firm L recognises that if both firms charged those prices in the Netherlands as well, then firm L would make all the sales (since firm L's differential price in Belgium is lower than that of firm H). If firm L's differential price in Belgium is below the monopoly price in the Netherlands, then firm L has an incentive to increase its uniform price, given a uniform price set by firm H at the level of its differential price in Belgium. The reason is that firm H does not constrain firm L in the Netherlands, so that firm L would prefer to set its price in the Netherlands closer to the monopoly price. This means increasing the uniform price above the level of firm L's price under differential pricing in Belgium.
- (252) Since firm H's price under differential pricing in Belgium is higher than firm L's, it will continue to set its uniform price as a best response to the (uniform) price charged by firm L. But as explained in the previous paragraph, firm L has an incentive to increase its uniform price above its differential price in Belgium. Firm H will respond to this by similarly raising the price that it charges in Belgium.<sup>256</sup>
- (253) The uniform prices charged by both firms are above their respective differential prices in Belgium, which themselves were above marginal cost. Since the differential prices of both firms in the Netherlands are at the level of marginal cost, the move from differential pricing to uniform prices has increased prices for all consumers – both in the Netherlands and Belgium. The effects on consumer welfare of differential pricing, in this case, are therefore not ambiguous: differential pricing is better for all consumers.<sup>257</sup>
- (254) In summary, under oligopoly third-degree differential pricing may have the additional benefit of intensifying competition. This effect is not present under monopolistic differential pricing and benefits consumers.

#### **A.4. Monopolistic differential pricing in input markets**

- (255) Up to this point, we have focused on differential pricing with passive retailers who simply passed along their input prices to consumers. As the description of the

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<sup>256</sup> Prices are strategic complements, in the sense that if a rival raises its price, then a firm's best response is to also raise the price. Note that to confirm the optimality of firm H increasing its uniform price above its differential price in Belgium, firm H should not find it profitable to slightly undercut firm L's uniform price. If firm H did so, it would monopolise both markets, but at the uniform price of firm L. If the price difference between both firms is large and if the weak market (the Netherlands in our case) is small enough, then firm H does not have an incentive to undercut firm L. See Corts (1998).

<sup>257</sup> This result depends on the assumption that the monopoly price in the Netherlands lies above firm L's differential price in Belgium. If this were not true, then firm L would have an incentive to set a uniform price below its differential price in Belgium. Firm H would respond to this by also setting a uniform price below its differential price in Belgium. Prices in Belgium would thus be lower under uniform prices, while prices in the Netherlands would be higher. The effect on consumer welfare would thus be ambiguous, as it is under monopolistic differential pricing.

consumer goods industry in the European Union in Section 2 has shown, however, such an assumption is not realistic for many markets.

- (256) Reality differs from that simplifying assumption in three key respects:
- First, many retailers possess market power on their output market.<sup>258</sup> That is, they can charge consumers higher prices than their marginal costs. This assumption will hold throughout in this section.
  - Second, many retailers possess market power on their input market, or monopsony power.<sup>259</sup> As they recognise that their behaviour can influence the prices that they pay for inputs, retailers do not passively accept whatever prices suppliers decide to charge. Instead, retailers often negotiate with brand manufacturers for the best conditions.
  - Third, the negotiations between retailers and manufacturers do not revolve around a simple price for each product. Instead, payments between retailers and manufacturers may depend on a variety of factors and include many elements beside a simple price per product.<sup>260</sup>

- (257) Accordingly, we will discuss in the following sections a few theoretical analyses of differential pricing in input markets. Whereas we analysed oligopolistic differential pricing in the preceding section, we will again consign ourselves to monopolistic differential pricing.

#### **A.4.1. Retailers with seller power**

- (258) When retailers possess market power in the output market, they can charge a price above their marginal cost, which consist of the wholesale price for the good and the retailing costs. The brand manufacturer needs to take this into account when setting wholesale prices. In the case of monopolistic differential pricing, differences in demand give the brand manufacturer an incentive to engage in differential pricing. When one explicitly considers selling to retailers or wholesalers, however, other factors may also create incentives for the brand manufacturer to engage in differential pricing (*e.g.*, differences in retail costs and differences in the level of competition).<sup>261</sup>
- (259) If retailers differ in their marginal cost, a brand manufacturer engaging in differential pricing would generally set a lower wholesale price in the weak market,

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<sup>258</sup> See Section 2.2.

<sup>259</sup> See Section 2.2.

<sup>260</sup> See Section 2.1.

<sup>261</sup> See Katz (1987) and DeGraba (1990). See also Arya and Mittendorf (2010), which studies a case in which a large retailer only competes in one of its markets and is a monopolist in the other. Arya and Mittendorf (2010) study the cases when the wholesale price is uniform and when the brand manufacturer can set different wholesale prices to the large retailer and its local competitor, but not when the brand manufacturer can additionally set different wholesale prices to the large retailer depending on where it sells the good.

where the retailer's own costs are high. This means that wholesale differential pricing mitigates differences in retail costs across markets. Retail prices therefore differ much less between the strong and the weak market than they would without differential pricing. The overall welfare effects of wholesale differential pricing are, as before, ambiguous, if all markets that are covered under differential pricing continue to be covered under uniform pricing. While consumers in the strong market gain from the removal of differential pricing, consumers in the weak market are harmed.<sup>262</sup>

- (260) Differential pricing may, however, also affect the structure of the downstream industry.<sup>263</sup> For example, the brand manufacturer could face an incumbent retailer in one market, but a potential entrant in another market.<sup>264</sup> An entrant will only bear the fixed cost of entering the downstream market if the wholesale price that it faces is not so large as to make the investment unprofitable. Compared to the incumbent, the brand manufacturer therefore faces a stricter constraint on how much it can increase the wholesale price.
- (261) If the cost of entry is relatively high, then there are cases in which entry occurs under differential pricing, but not under uniform pricing. The reason is that under uniform pricing, the brand manufacturer would also have to set a lower price to the incumbent to ensure that entry occurs. Compared to differential pricing, the brand manufacturer therefore loses profits on the sales to the incumbent. If the reduction in the wholesale price necessary to induce entry is large, then the brand manufacturer may decide to forego entry and instead charge the incumbent retailer the unconstrained optimal wholesale price. Uniform pricing may thus prevent the brand manufacturer from choosing wholesale prices to sponsor efficient entry. Even if entry occurs under both pricing regimes, differential pricing may improve welfare if the entrant produces at a lower marginal cost than the incumbent.<sup>265</sup>

#### **A.4.2. Retailers with buyer power**

- (262) When brand manufacturers and retailers bargain over wholesale prices, differential pricing may also result in lower average wholesale prices than uniform pricing.<sup>266</sup>

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<sup>262</sup> Interestingly, this is opposite to what was found for monopolistic differential pricing, when differences in demand gave the brand manufacturer an incentive to engage in differential pricing. See Appendix A.1.

<sup>263</sup> The following discussion is based on Herweg and Müller (2012). When considering a perfectly competitive retail sector differential pricing as in Sections A.1 and A.3, differential pricing would not affect the structure of the downstream industry.

<sup>264</sup> This situation may appear unlikely since retailers are active in all Member States. If entry refers, however, to the process of a retailer being active in a particular product category or still needing to invest in selling the products of a brand manufacturer, then one may also apply this logic to the consumer goods industry.

<sup>265</sup> As before, there are also cases in which both markets are served under both pricing regimes in which differential pricing leads to lower welfare due to the previously discussed misallocation effect.

<sup>266</sup> The following discussion is based on O'Brien (2014). While that article focuses on third-degree differential pricing between a chain and a local retailer within a given market and not across markets, the conclusions are nevertheless applicable to TSCs. The reason is that allegations that some contract terms used by brand manufacturers under differential pricing may (rightly or wrongly) be deemed to be illegitimate TSCs. Their removal to reduce cross-

For example, suppose that a single brand manufacturer bargains with two retailers over the wholesale price.

- (263) Under uniform pricing, retailers will bargain less aggressively than under differential pricing, since they know that any reduced input price that they can obtain will also benefit their competitors. In contrast, the supplier will bargain more aggressively under uniform pricing, since any concession made to one retailer also needs to be given to the other retailer. Both these factors lead to incentives for a higher average wholesale price under uniform pricing than under differential pricing.
- (264) For completeness, we note that if retailers can integrate backwards (*e.g.*, by launching a private label product), there may be a special case under which the uniform price is at the level of the lower differential price.<sup>267</sup> However, this result only applies to the short run. In the long run, when firms can invest in cost reductions, this conclusion no longer holds since uniform pricing would then remove the retailers' incentives to invest in cost reductions. As a result, the retailers' costs are higher, and consumers are harmed by uniform prices in the long run.

#### A.4.3. Non-linear contracts

- (265) As shown in Section 2.1, retailers, wholesalers and brand manufacturers negotiate not just a single wholesale price for consumer goods.<sup>268</sup> The brand manufacturer can now offer the retailer (wholesaler) a contract that specifies both a unit price for the good as well as a fixed payment (or fee) that does not vary with the quantity bought by the retailers. This is known as a two-part tariff.<sup>269</sup>
- (266) It is well-known that the theoretically best that the brand manufacturer can do is to set the unit price of the product at the level of its own marginal cost and then to set the fixed payment equal to the gross profits of the retailer.<sup>270</sup> This way the brand manufacturer ensures that the retailer will set its own output price in a way that maximises total industry profit. While the brand manufacturer does not earn

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country price differences may thus also affect bargaining and differential pricing within a country. The main difference to the preceding discussion is that retailer and brand manufacturer bargain over the wholesale price, rather than the brand manufacturer setting a wholesale price which the retailers then need to either accept or not.

<sup>267</sup> The following discussion is based on Inderst and Valletti (2009).

<sup>268</sup> The following discussion is based mostly on Inderst and Shaffer (2009). Also note that in Section IV (iii) of Arya and Mittendorf (2010), it is shown that differential pricing yields higher welfare under less restrictive conditions when two-part tariffs are feasible.

<sup>269</sup> The two parts of the tariff are, first, the unit price and, second, the fixed transfer payment. Two part-tariffs are a case of second-degree differential pricing.

<sup>270</sup> This requires the brand manufacturer to know both what demand the retailer faces and the cost structure of the retailer. If there is private information on the part of retailers or customers, the unit price may also exceed marginal cost. See Herweg and Müller (2014).

any profit on sales of its products directly, the fixed fee can be used to distribute the industry profits among firms.

- (267) If the brand manufacturer uses two-part tariffs in different countries, then the size of the fixed fee may differ, depending on the demand and supply conditions in the relevant Member States. The unit price, however, would not differ. As a result, a comparison of wholesale prices considering only the unit prices would show no differences across countries. In contrast, considering the fixed fee would show different average wholesale prices.
- (268) The use of different two-part tariffs so far assumed that the brand manufacturer could contractually force each retailer not to sell the product to each other. Given that the unit prices are the same, the retailers also would not have an incentive to sell to each other.
- (269) However, this assumes that both retailers have already agreed to the two-part tariffs offered by the manufacturer. If only one retailer had done so, then the other retailer might be able to buy from either the other retailer or the manufacturer. If the first retailer were free to buy additional quantity for the second retailer at the brand manufacturer's marginal cost, then competition would force down the price paid by the second retailer to marginal cost. There would then also be no fixed fee. In effect, the brand manufacturer creates its own competitor by signing a two-part tariff contract with one of the retailers.
- (270) When there are no barriers to trade across markets and if the brand manufacturer cannot contractually either limit the resale of its product in other markets or restrict the quantity, the use of two-part tariffs with a low unit price or a unit price at the level of the upstream marginal cost will likely no longer be optimal for the brand manufacturer. Instead, the brand manufacturer would prefer to increase the unit price while reducing the fixed fee component of its contracts. The brand manufacturer can thereby limit the extent to which it creates its own competition. The unit price set by the brand manufacturer under arbitrage would necessarily lie above the unit price that it would choose if it could use two-part tariffs and limit cross-border trading. Overall, despite the increase in the unit price, the brand manufacturer is worse off under arbitrage because it is less able to charge a fixed fee.
- (271) Retailers will pass-on the wholesale price to consumers at least to some extent, while they do not pass-on the fixed fee to consumers. As a result, retailers will set higher prices than if they faced two-part tariffs and could not make use of cross-country arbitrage. Consumers are therefore harmed, although retailers may benefit.<sup>271</sup> While this finding does not rely on the uniform wholesale price causing

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<sup>271</sup> Even if two-part tariffs may continue to be used but may no longer condition the payment terms on the country in which a good is to be sold, there are benefits to allowing the brand manufacturer to condition on the country of destination in two-part tariffs. See Miklós-Thal and Shaffer (2021).



one of the two markets to no longer be covered profitably by the brand manufacturer, this may be an additional consequence of greater arbitrage. This would then lead to an even greater harm to consumers and the brand manufacturer.

## Appendix B. Literature

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