Bundeswettbewerbsbehörde

Food industry survey

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1. List of abbreviations

Abbreviation:	Designation in full text:
AK	Chamber for Workers and Employees, Federal Chamber of Labor
AMA	Agrarmarkt Austria (legal entity under public law)
B2B	Business-to-Business
Big Four	These are the four largest companies operating in the Austrian food retail sector, namely Rewe, Spar, Hofer and Lidl
BKartA	Federal Cartel Office, Germany
BKartAnw	Federal Cartel Prosecutor
BWB	Federal Competition Authority
CBoT	Chicago Board of Trade
CMA	Competition and Markets Authority, Great Britain
COICOP	Classification of Individual Consumption by Purpose
ECG	Federal law regulating certain legal aspects of electronic business and legal transactions (E-Commerce Act - ECG), Federal Law Gazette I No. 152/2001
ECR	ECR-Austria, GS1 Austria GmbH
ECR goods classification	The product group classification serves to prevent arbitrary and non-consumer-oriented product segmentation and instead to ensure a uniform view of product categories.
EK	European Commission
ECB	European Central Bank
FWBG	Federal Act on the Improvement of Local Supply and Competition Conditions (Fair Competition Conditions Act - FWBG), StF: Federal Law Gazette No. 392/1977
GfK	Consumer Panel Services GfK or CPS-GfK
Hofer	HOFER KG
ICT	Information and communication technologies
KartG	Federal Act against Cartels and other Restraints of Competition (Cartel Act 2005 - KartG 2005), Federal Law Gazette I No. 61/2005
LEH	Food retail
LGH	Food wholesale

Lidl	LIDL Austria GmbH
MATIF	Marche de Terme International de France
MPrice	MPREIS Warenvertriebs GmbH
NAFG	Food and non-alcoholic beverages
NielsenIQ	Nielsen Consumer LLC, market research company
NUTS	Nomenclature des unités territoriales statistiques
OECD	Organization for Economic Cooperation and Development
O-LEH	Online food retail
OLG-Vienna	Higher Regional Court Vienna
PrAG	Federal Act on the Awarding of Prizes (Prize Awarding Act - PrAG), Federal Law Gazette No. 146/1992
RegioData	RegioData Research GmbH, market research company
Rewe	REWE Group Austria (REWE International AG)
RFI	Request For Information
Savings	SPAR Österreichische Warenhandels-AG
USD	United States Dollar
UWG	Federal Act against Unfair Competition 1984 - UWG, StF: BGBl. No. 448/1984
VPI	Consumer price index, published by Statistics Austria
Betting Act	Federal Act on the Establishment of a Federal Competition Authority (Wett-bewerbsgesetz - WettbG), StF: BGBl. I No. 62/2002

2. Introduction

2.1. Reason for and background to the sector inquiry

The start of the attack on Ukraine on February 24, 2022 and the associated political and economic consequences caused shifts in the global flow of goods and commodities, resulting in volatile price developments on the crude oil, fuel, energy and other commodity markets worldwide. This had considerable spillover effects on downstream markets (e.g. markets for unprocessed and processed agricultural products and food), which also led to significant price increases on these markets. Global inflation rates began to accelerate at the start of 2021, but this situation worsened significantly once again with the outbreak of war. It is therefore obvious that the underlying causes or background to the inflationary trend were probably already partly in place before the war began. Various national competition authorities, such as the Federal Competition Authority (BWB), the German Federal Cartel Office (BKartA) and the British Competition and Markets Authority (CMA), therefore felt compelled to initiate or conduct **sector or industry investigations in the fuel markets** and related markets.[1] The BWB focused its competition investigations on those sectors in the price increase was particularly noticeable and had a particularly strong impact on the cost of living for the population. In addition to the fuel markets, this applies above all to the food and energy sectors.

The last sector inquiry into the food industry was published by the FCA in 2007. At that time, the focus of the investigation was on the buying power of food retailers and comprised just twenty-one pages.[2] In 2013, BWB prepared a contribution for the OECD Competition Roundtable, addressed existing competition problems in the food supply chain.[3] Since then, various investigations and proceedings have been conducted against individual companies in the food sector, some of which have led to high fines being imposed by the Cartel Court. The proceedings - some of which were very extensive - enabled the

[1] A final report of the sector inquiry into the Austrian fuel market was presented by BWB in August 2022 (see https://www.bwb.gv.at/news/detail/bwb-legt-abschlussbericht-der-branchen untersuchung-im-oesterreichischen-kraftstoffmarkt-vor), while in June 2023 an interim report by the Energy Task Force together with with the E-Control was presented was presented (see https://www.bwb.gv.at/news/ detail/taskforce-energie-bundeswettbewerbsbehoerde-and-e-control-present-interim-report). An interim report of the sector inquiry into refineries and fuel wholesalers was published in Germany by the BKArtA in November 2022 (see https://www.bundeskartellamt.de/SharedDocs/Meldung/ DE/Press_releases/2022/28_11_2022_SU_Raffinerien.html). In the UK, the CMA presented the final report of its investigation into the fuel market in July 2023 (see https://www.gov.uk/cma-cases/road-fuel-market-study).

[2] A final report including a brief conclusion is available for download on the BWB website: https://www.bwb.gv.at/branchenuntersuchungen/untersuchung_lebensmittelhandel/.

[3] Competition issues in the food chain industry, OECD Competition Committee: https://www.oecd.org/daf/competition/competition-issues-in-food-chain.htm

BWB gained in-depth insights into the existing market structures and also led to a large number of decisions by the Cartel Court.[4] Against this background and due to the documented price developments in the food sector during 2022 and the associated complaints received by BWB, particularly since the second half of 2022, BWB saw the need to carry out a comprehensive expansion of its sector inquiry from 2007. The result is an updated and expanded assessment of the competitive situation in the food industry against the backdrop of current developments. The **most important competitive variables** are **identified, described and linked to price developments, as discussed in the following overview.**

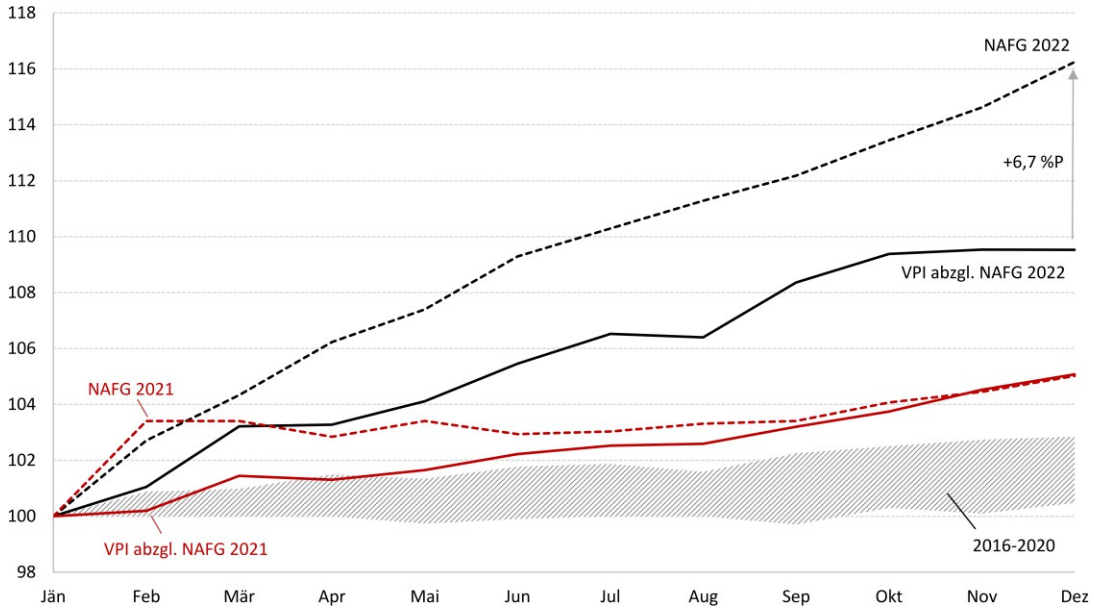
The consumer price index (CPI) calculated monthly by Statistics Austria includes food and non-alcoholic beverages (NAFG) with a weighting of just over eleven percent.[5] As can be seen in Figure 1 below, the value of the price index for NAFG began to rise systematically more strongly than the price index for the remaining CPI items (CPI less NAFG) from January 2022. At the beginning of this sector study, the CPI was based on price data up to September 2022.[6] This shows that in the period from January 2022 to September 2022, the prices of NAFG rose by 3.8 percentage points more than the prices of the other CPI items. By the end of 2022, this discrepancy had widened to 6.7 percentage points. A convergence of prices, as occurred in the previous year 2021, could therefore not be observed. In the years 2016 to 2020 and also in 2021, the prices of the CPI total basket of goods developed in a relatively narrow corridor to each other, but not in 2022. From this comparison, the inflationary development that occurred particularly strongly for NAFG can be identified, which affected the remaining CPI items less strongly and therefore appears to be exceptional.

(4) The most recent mergers, BWB investigations and decisions of the Cartel Court are discussed in detail in section 6.2.6 and section 7.2.3.

5 The weight of food in the CPI amounts to just over ten percent. Non-alcoholic beverages account for not much more than one percent of the CPI. The trend for NAFG shown in Figure 2 will therefore be driven primarily by the price trend for food.

6 The flash estimate for October 2022 was published on October 31, 2022. See the press releases of Statistics Austria at https://www.statistik.at/statistiken/volkswirtschaft-und-oeffentliche-finanzen/preise-und-preisindizes/verbraucherpreisindex-vpi/hvpi.

Figure 1: Price indices of consumer goods in Austria



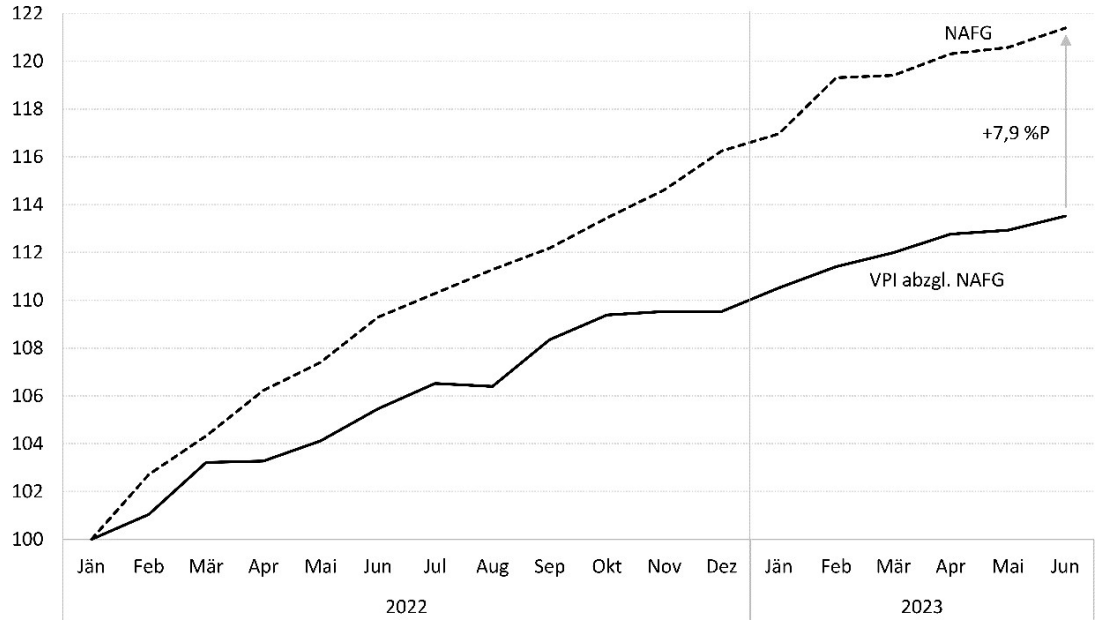
Note: January of the respective year is the base month (price index= 100). NAFG is the abbreviation for "food and non-alcoholic beverages". The gray shaded area marks the corridor in which the price index for NAFG and the CPI less NAFG moved in the years 2016 to 2020 inclusive.

Source: Statistics Austria; own calculations.

The price divergence between NAFG and the other CPI items that developed in 2022 continued in the first half of 2023, as can be clearly seen in Figure 2. Overall, NAFG prices rose by 7.9 percentage points more than the other CPI items in the period from January 2022 to June 2023.

Such extraordinary price developments - as for NAFG in Figure 1 and Figure 2 since 2021 - raise various questions regarding the conclusive justification and explanation of the underlying causes of this development. For the **BWB as the competition authority, the specific question arises in this context as** to whether the price developments that have taken place for NAFG products and for food in general are at least partly due to competitive shifts or a lack of competition.

Figure 2: Price development from January 2022 to June 2023



Note: The base month is January 2022 (price index = 100). NAFG is the abbreviation for "Food and non-alcoholic beverages".
Source: Statistics Austria; own calculations.

Due to the - previously described - extraordinary price development for food, the additional question arose as to whether these price increases for food partly disproportionately compensated for the actual cost increases in production, marketing and distribution, thereby increasing the profit margins of individual market participants at various levels of the relevant market.

Even if there is not necessarily a causal relationship between the competition prevailing on a market and an inflationary price trend, it can be stated that a **stimulation of competition generally** has **a price-dampening effect.** In the food sector, the quality of competition is also important due to distributional economic aspects. **Households and consumers with lower incomes in particular would benefit relatively more from more intense competition and lower food prices**[7].

Aspects of competition and distribution economics can affect not only the relationship between food retailers and consumers, but also the relationships between food manufacturers, food suppliers and individual customers (primarily food retailers). The **existing and considerable disadvantages,** particularly in relation to domestic suppliers, are

[7] Cf. OECD Competition Policy Roundtable Background Note, COMPETITION AND INFLATION, 2022, https://www.oecd.org/daf/competition/competition-and-inflation-2022.pdf, accessed on 06.10.2023; OECD Global Forum on Competition, COMPETITION AND POVERTY REDUCTION Background Note, 2013, https://one.oecd.org/document/DAF/COMP/GF(2013)1/En/pdf, accessed on 06.10.2023.

The fact that the food retail sector (both food retailers and food wholesalers) **has a strong influence on prices** is currently a widely accepted reality. This can lead to disadvantageous or unfavorable results to the detriment of small and medium-sized companies, particularly in price and conditions negotiations between small and medium-sized companies on the one hand and the significantly larger players in the food trade on the other.

On the basis of the events, backgrounds, assumptions and theories described, the underlying thrust can be identified. In the course of the surveys, additional topics and factors to be considered emerged, which are discussed in detail in this report (e.g. strengthening customer-side price transparency through **price comparison platforms**[8]).

2.2. Question of the sector inquiry

A sector inquiry can be initiated if circumstances that competition in a particular economic sector restricted or distorted. The WettbG defines the conduct of general investigations of an economic sector - **sector inquiry** - as one of the central tasks of the Federal Competition Authority. The circumstances, backgrounds, causes and price developments in the food sector described above give rise the reasonable assumption that there may have been recent competitive shifts, abuses or a lack of competition on the market. Whether such competitive problems exist and whether existing competitive deficiencies as possible causes have led to - or at least facilitated - the sharp increases in food prices could not be determined or ruled out without an in-depth investigation.

The following four key questions were analyzed from the perspective of the competition:

1. Where in the value chain (primarily processing or retail) did the food price increases in 2022 mainly go?
    a. Which stages of the value chain have benefited most from these food price increases?
    b. Have international food companies been able to profit to a particular extent from the price increases for foodstuffs?
2. How have various competitive factors (number and distance of local retailers, product range, product diversity, etc.) developed in the food industry in recent years?
    a. What is the market structure in the individual stages of the value chain?

[8] See the comments under point 9.

b. What is the market behavior of market participants in the individual stages of the value chain?

c. What is competitive situation - in terms of a market result - in the individual stages of the value chain?

3. How has the concentration within a broad selection of product categories and the proportion of private labels on the shelves of food retailers developed?

4. What impact is the increasing role of online retail having on competition in the food industry?

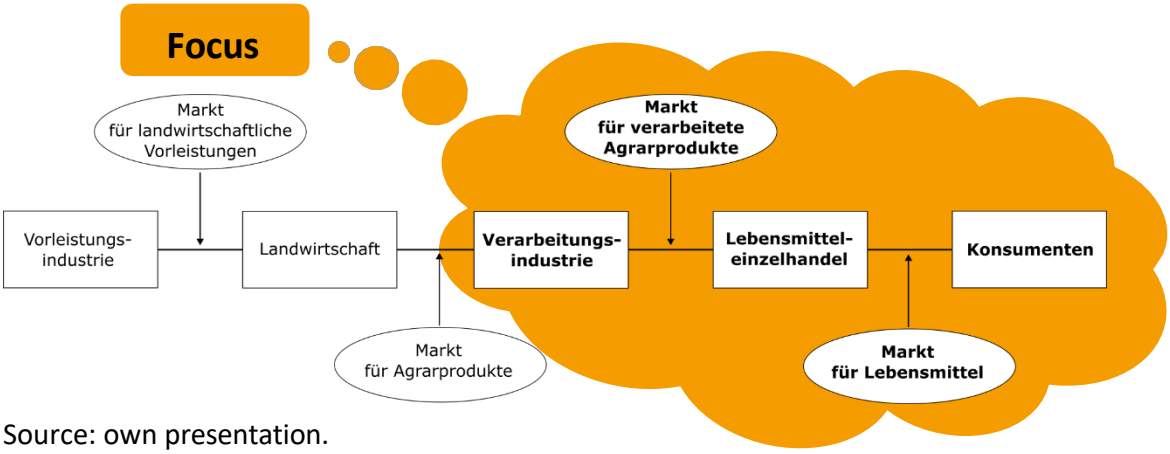
5. In addition to the core questions, a consumer survey was conducted to find out what consumers' wishes and needs are on the demand side in the food industry and how they manifest themselves.

By addressing the above questions, the FCA aims to develop a better understanding of the occurrence and frequency of unfair trading practices on the one hand and the distribution of burdens and benefits due to food price increases in 2022 on the other. The latter is crucial for the questions of which stages in the value chain were responsible for the sharp food price increases since the beginning of 2022, which may have benefited from them and whether competitive factors are associated with them.

2.3. Focus of the industry survey

This report focuses on the food industry (market for processed agricultural products) and the Austrian food retail sector (market for food). Developments in agriculture (market for unprocessed agricultural products) and a selection of markets for agricultural inputs are also presented in less detail. Figure 3 shows a schematic of the food value chain with four connecting markets. The focus of the sector study was on the **two markets at the end of the value chain**. However, for the sake of completeness, an overview of general price and cost developments based on important input factors (e.g. fuels, electricity, gas and fertilizers) is nevertheless provided for the upstream markets. LGH, petrol station stores and other supply options that cannot be attributed to traditional food retailing were largely ignored in this study due to their comparatively low share of sales. Within the food retail sector, the focus was placed on the four largest competitors: (1) Spar, (2) Rewe, (3) Hofer and (4) Lidl. Due to the importance of MPreis in western Austria, a separate analysis of the competitive situation of food retailing in Tyrol was carried out.

Figure 3: Food value chain, focus of the sector study



Source: own presentation.

The focus of the industry study is on answering the questions raised in section 2.2. It was examined whether competitive factors or competitive shifts can be held at least partially responsible for the price increases for food in 2022. As international food companies in particular expected to have a high level of negotiating power in the food industry in terms of conditions and delivery terms, the importance of international companies will also be analyzed in the course of the industry study to determine whether they were partly responsible for the development of food prices in 2022. The approach chosen for this is described in section 2.4 below.

The following points are discussed in detail in the course of the sector inquiry:

- Market structure of the food industry, broken down into various stages of the value chain, namely (i) food retail (see section 6.1),
  (ii) food industry (see point 7.1) and (iii) agriculture and intermediate markets (see point 8.1).
- Market behavior of market participants in the food industry, broken down into various stages of the value chain, namely (i) food retail (see section 6.2), (ii) food industry (see section 7.2) and (iii) agriculture and agricultural input markets (see section 8).
- Assessment of the competitive situation - in terms of a market result - of the economic sector of the food industry, broken down into various stages of the value chain, namely (i) food retail see section 6.3), (ii) food industry (see section 7.3) and (iii) agriculture and wholesale markets (see section 8.3).
- Wishes and needs of consumers as the demand side of the food industry, as well as necessary improvements in price transparency for consumers (see point 9).

- Treatment of the topics identified or addressed in the course of the sector inquiry (ii) Fair supply relationships in the agricultural and food supply chain[9], assessment, outlook and recommendations for action (see point 10), (ii) Shrinkfla- tion and scimpflation (see point 6.4), (iii) Online food retail (see point 6.5), Competitive impact depending on household income (see point 6.6), Austria mark-up in the food industry (see point 7.4).
- Formulation of competitive recommendations to improve the current overall situation (see point 3).

2.4. Key steps

On **25.10.2022**, invited industry representatives were informed about the start of the sector inquiry in the food industry.[10] After the BWB had given initial consideration to the design of the sector inquiry, various **stakeholders** were invited **to talks.** The preliminary concept, the background to the sector inquiry, initial general questions, possible objectives and the expected timetable were discussed and presented. These discussions resulted in useful and pertinent comments and suggestions, on the basis of which the concept of the industry survey was revised, expanded and optimized. The report was enriched by the generous **provision of data and analyses** by the Oesterreichische Nationalbank, the Verein für Konsumenteninformation and AgrarMarkt Austria.

A predetermined **food basket** was placed at the center of the analysis. Previous decisions by the FCO and the European Commission have also stated that competition between food retailers does not take place in individual product groups, but via a basket of goods or, if applicable, several comparable baskets of goods. The composition of this basket of goods should in any case be based on the CPI of Statistics Austria in order to ensure that it is representative. The BWB focuses on a total of **34 product groups** (e.g. drinking milk, pasta, frozen pizza, bread and pastries, fresh meat, etc.).

Between December 2022 and February 2023, the extent to which the two market research institutes NielsenIQ and Consumer Panel Services GfK could support BWB with data from the Austrian food retail sector was clarified and discussed. A **selection of product groups - based on the ECR product group classification[11] - and a list of representative and meaningful indicators** were prepared. The offers submitted by these two companies - following an invitation to submit offers by BWB - were evaluated in terms of their quality, scope, usability of the data and the quality of the indicators.

[9] A brief explanatory overview of the FCA can be found on the FCA website: https://www.bwb.gv.at/weitere-kompe- tenzen/unlauterer-handelspraktiken

[10] See the publication on the BWB homepage: https://www.bwb.gv.at/news/detail/bwb-praesentierte-aktualisier- ten-fairness-catalog-and-start-industry-investigation-in-food-sector.

[11] https://ecr-austria.at/arbeitsgruppen/serviceplattform-warengruppenklassifikation/

their prices. In addition to information on turnover and expenditure, sales volumes and average prices, the breakdown of product groups by individual companies operating in the food retail sector and various manufacturers was particularly important for BWB. Only on the basis of this data can comparisons be made and price concentration measures important for competition analysis be calculated. BWB's decision to purchase the data essential for conducting the industry survey was ultimately made in favor of **Consumer Panel Services GfK**.

The sector study **does not** include **alcoholic beverages or non-food items** (drugstore items, cleaning products, clothing, electronic devices, etc.), which are regularly or sometimes found in the stores of Austrian companies operating in the food retail sector. Instead, the focus was deliberately on everyday foodstuffs. Alcoholic beverages are purely a luxury item, which is why this product group, which beer, wine and spirits in particular, was not included in the BWB shopping basket. As a result, food including non-alcoholic beverages (NAFG) remains in the basket of goods examined, whereby the basket of goods compiled by the BWB in turn only includes a subset of NAFG. More detailed information on the shopping basket can be found under point 5.

The BWB sent out 10 rounds of **requests for information** and **700 trading companies** and over **1500 suppliers** surveyed.

In order to answer the question of where the additional revenue from food price increases has gone since the beginning of 2022, it is necessary to carry out **specific calculations of individual profit margins.** For this reason, the BWB requested cost data from both companies operating in the food retail sector and manufacturers with regard to the specific product groups analyzed in the basket of goods, using the instrument of requests for information. The focus was placed on the four largest companies operating in the food retail sector (Big Four), namely Rewe, Spar, Hofer and Lidl. When selecting the manufacturers, the aim was to achieve the highest possible degree of coverage for the branded or own-brand items by the manufacturers in to be able to draw reliable and well-founded conclusions about the total expenditure in the respective product groups. With regard to all requests for information sent in connection with this industry survey, please refer to the explanations under point 4.4.

In the course of the industry investigation, **requests for information** were also sent to a large selection of **suppliers** to the Austrian food retail sector in order to analyze the buying power of food retailers and also to examine the relevance or possible abuses in the application of the FWBG - and thus the unfair trading practices mentioned therein in accordance with Annexes I and II. In this context, the price, cost and concentration developments since the beginning of 2022 and the frequency of the use of unfair trading practices in the respective product groups of the period were also analyzed.

to be able to derive statements about the possible effects of the use of unfair trading practices for end consumers and manufacturers with weak negotiating power.

The **Big Four** companies operating in the food retail sector were also asked about this topic and were asked about their perceptions in the context of **requests for information.** Three of the Big Four companies answered the requests for information comprehensively, conclusively and comprehensibly, but one retail company refused to answer on the subject of the use of unfair trading practices. In order to complete the sector inquiry quickly, the BWB decided not to take legal action. With regard to all requests for information sent in connection with this sector inquiry, please refer to the explanations under point 4.4.

This report provides a transparent overview of the industry survey process. In particular, care has been taken to present both the direct results of the data analysis and the responses to the requests for information in sufficient detail. At the same time, the interest in maintaining the confidentiality of business and trade secrets and other legitimate interests must be safeguarded. Where necessary and appropriate, the BWB has interpreted and assessed the findings and arguments put forward.

The results of the sector inquiry give rise to the assumption unfair trading practices within the meaning of the FWBG occur on the Austrian market to a not insignificant extent. As the competent enforcement authority, BWB is focusing even more strongly on combating such unfair trading practices and will also take into account the findings of this investigation. The BWB will report on its activities in this area on an ad hoc basis.

3. Competitive recommendations

1. **Implementation of the measures recommended by the BWB in the "Focus paper on price comparison platforms" to increase price transparency for consumers in the food retail sector.** In its focus paper published in September 2020, the BWB pointed out the importance of measures to increase customer-side price transparency. In particular, the activities of developers and operators of digital comparison platforms should be facilitated. The BMAW has announced that it intends to implement - at least in part - the recommendations set out by the BWB in the "Focus paper on price comparison platforms". However, exploiting the potential of well-functioning and informative price comparison platforms - for the benefit of all consumers and especially the lower income groups - requires sufficient information density of the products to be compared. Price comparison platforms are only attractive to consumers if they have access to information on **all food products** and not just limited to a few "staple foods". Otherwise, the benefits of such price comparison platforms for consumers would be severely limited. Another key cornerstone of the FCA's recommendations is that the successful model of decentralized private price comparison platforms should not be restricted by the creation of regulatory structures and processes and thus turned into the opposite.

2. **Strengthening of the internal market and referral to the European Commission regarding differing purchase prices in the EU member states due to country strategies of food groups**
   The application of different pricing policies by suppliers in the EU internal market is a problem that goes beyond the national level. BWB will therefore refer the issue of the so-called Austrian surcharge to the European Commission, as it is an issue relating to the functioning of the internal market.

3. **Improving the transparency of food**
   It is suggested that measures be taken to increase the transparency of changes to food packaging with regard to the relationship between packaging size and filling quantity. In particular, hidden price increases - such as those caused by a reduction in the filling quantity - should be easily recognizable for consumers. Essentially, this a consumer protection law problem that could be solved by adapting or tightening up the existing consumer protection provisions in this regard. Since food retailers have sovereignty over the shelf price and thus act as an interface between manufacturers and consumers, they should also assume responsibility for communicating changes in quantity or changes to products in a transparent manner.

4. **Enhancing and strengthening consumer protection**

   Consumer protection should strengthened in terms of content and, if necessary, institutionally by taking current developments into account. In this context, BWB welcomes the report published by the Federal Ministry of Social Affairs, Health, Care and Consumer Protection in the *"Funding concept to ensure the long-term financing of consumer protection organizations, in particular the VKI*"[12].

5. **No misleading discounts**

   In the interests of better price transparency for consumers in the case of products on promotion and uniform practical handling by food retailers, it is suggested that the open legal question of whether, when announcing a price reduction for tangible goods in amounts or percentages, this price reduction must be measured on the basis of the lowest price of the last 30 days or whether this must merely be stated in the sense of an additional information obligation be clarified(13).

6. **Market studies based on the FWBG**

   Suppliers affected by unfair trading practices refrain from filing complaints with the BWB for fear of retaliatory measures (e.g. delisting). However, important indications for the initiation of proceedings can be obtained from market investigations. In order to ensure efficient enforcement, the BWB therefore proposes a clarification in the FWBG, according to which it has the power to initiate targeted market investigations, also solely on the assumption of the use of unfair trading practices.

7. **Legal certainty for suppliers through written form**

   In order to increase legal certainty for suppliers, the BWB proposes that contracts within the scope of application of Section 2 of the FWBG - or at least for practices in Annex II - should always be in writing and that this should no longer be dependent on the supplier's request.

[12] Report on the resolution of the NR of 14.12.2022 285/E XXVII. GP parlament.gv.at).

[13] The relevant Price Indication Directive (98/6/EC) provides, inter alia, that any announcement of a price reduction must indicate the previous price applied by the trader over a given period before the price reduction. The previous price is the lowest price applied by the retailer within a period of at least 30 days prior to the application of the price reduction. The practice of companies in Austria is inconsistent. For example, in some cases an additional information about the lowest price of the last 30 days is given for price reductions, but sometimes no lowest price is given at all.

8. **No pressure to agree to practices in Annex II to the FWBG**

   Food retailers have the possibility to exert pressure to enforce suppliers' consent to Annex II practices that are prohibited unless they have been clearly and unambiguously agreed beforehand. To this issue, the FCA proposes to equate practices that have been agreed to by the buyer under objectively unjustified pressure with the absolutely prohibited practices of Annex I.

9. **Improved legal basis for the enforcement of competition law measures based on industry investigations**

   From a legal policy perspective, the German government's commitment to tightening competition law is welcomed, particularly in connection with structural restrictions or distortions of competition identified in the course of industry investigations. Corresponding legal measures, which are also being discussed in the EU and internationally or have already implemented, can increase the scope for action by competition authorities to control serious distortions of competition.

4. Data and requests for information

4.1. Household Panel Consumer Panel Services GfK

BWB's price analysis is based on the household panel of Consumer Panel Services GfK, which is made up of a representative sample of 4,000 private households and is intended to depict the private consumption of around **4 million households** in Austria. Private consumption is shown in the household data provided. The consumption recorded in the household panel includes trade goods in the areas of food and non-food I. While food refers to foodstuffs, non-food I refers to consumer goods such as detergents and cleaning agents, personal care products, hygiene articles, cosmetics, pet food and the like. The household panel focuses on the core segment of household needs, which means that consumption outside the home, by tourists, public households and commercial customers (e.g. restaurants) is not taken into account (see Figure 4). The representativeness of the household panel is therefore limited to the consumption of food, detergents, personal care products, etc. within Austrian households' own four walls.

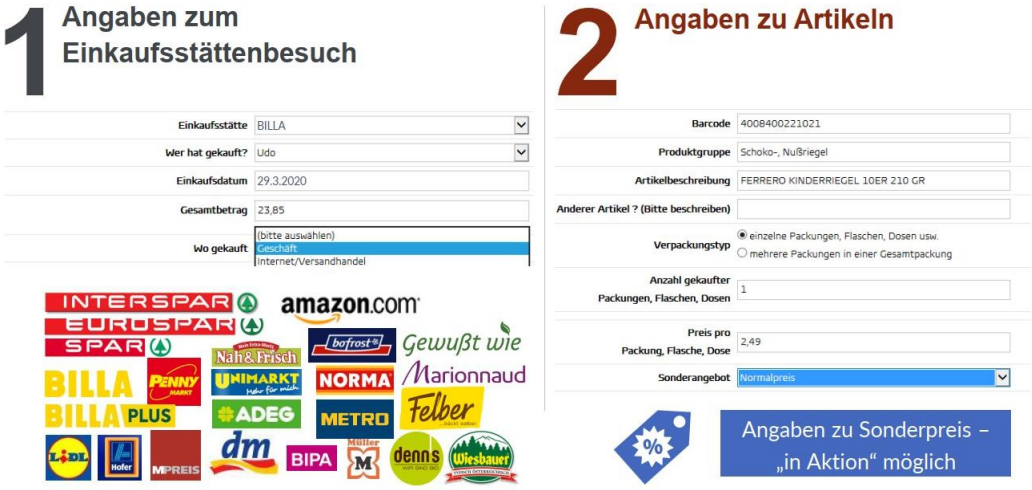
Figure 4: Focus of the household panel of Consumer Panel Services GfK

Source: Consumer Panel Services GfK.

In order to record everyday purchases, every household is with scanning devices with which the barcodes or EAN codes of the products purchased are scanned. A code book for products without EAN codes is provided by Consumer Panel Services GfK. This mainly fresh produce such as fruit and vegetables. In addition, households are required to provide further information on the place of purchase and item via an online query (see Figure 5). When recording promotions, it should be noted that the household panel is also based on the subjective perception households as to whether they have purchased the product on promotion. If, for example, a grocer a permanently low price as a "promotion", but the customer does not perceive and record this as a promotion, this purchase is not registered as a promotion in the household panel. In contrast to this, promotions supposedly perceived by customers due to conspicuous price tags are recorded as such in the household panel, even though the products were purchased at normal prices. What was reported as a promotional purchase is also recorded as such. Finally, the recorded data is sent via the Internet to

Consumer Panel Services GfK, where each purchase record undergoes a quality check and incorrect entries (e.g. an invalid purchase location) are corrected if necessary.

Figure 5: Online survey in the Consumer Panel Services GfK



Source: Consumer Panel Services GfK.

The data set used by BWB corresponds to a subset of the food sector in the entire household panel. A detailed presentation of the product groups analyzed in the sector study can be found in connection with the shopping basket selected by BWB under point 5. The data set comprises a total of **34 product groups, which** can be assigned to **18 shopping baskets**. The definitions of the shopping baskets and product groups are largely based on the Austrian product group classification of ECR Austria.[14] However, BWB has made some adjustments to the designations in order to make them easier for the reader to understand. For example, CO2 sodas were renamed carbonated soft drinks and potato-based products were referred to as potato potato chips and ticks. On the other hand, the majority of product groups contain several separate ECR product groups or ECR sub-product groups. For example, the product group 'fresh fruit unprepared' includes the ECR sub-groups 'soft fruit', 'pome fruit', 'shell fruit (incl. nuts in shell)', 'stone fruit', 'tropical fruit' and 'citrus fruit'. No distinction can be made between these groups in the analysis. The product group "fresh fruit unprepared" can only be analyzed holistically. The same applies, for example, to the product group "hard cheese, semi-hard cheese and soft cheese", which is made up of the ECR (sub)product groups "hard cheese", "semi-hard cheese" and "soft cheese".

[14] See the entry on the ECR Austria homepage: https://ecr-austria.at/arbeitsgruppen/serviceplattform-warengruppenklassifikation/.

Table 1: Analyzed product groups

Shopping cart	Product group
Non-alcoholic drinks	Carbonated soft drinks
	Fruit juices and nectars, sparkling drinks with fruit juice content (≥ 25%), smoothies
	Mineral, table and soda water as well as (lightly) flavored water ("near water")
	Still drinks and soft drinks with a low fruit juice content (< 25%)
Hot drinks	Roasted bean coffee (whole beans or ground)
	Soluble coffee beans (instant coffee)
Meat	Fresh meat (excl. poultry)
	Fresh poultry
Fish	Fresh fish and fresh seafood
Sausage	Sausage, ham and bacon (open and pre-packed from service or self-service)
Eggs	Eggs fresh and cooked (open and packed)
Fruit	Fresh fruit, unprepared (open, pre-packed, incl. peel fruit)
Vegetables	Fresh vegetables (open and pre-packed)
Bread/pastries/baked goods	Bread and pastries (open and pre-packed, incl. baked goods)
Dairy products	Drinking milk (fresh/ESL/shelf stable)
	Natural yogurt (incl. kefir and skyr)
	Fruit yogurt (incl. kefir and skyr)
	Hard cheese, semi-hard cheese and soft cheese
	Butter, margarine and mixed fats
Basic food	Cooking oil
	Rice
	Stuffed pasta (unrefrigerated and dry)
	Unfilled pasta (unrefrigerated and dry, excluding Asian pasta)
Convenience	Muesli and traditional cereals
	Chilled soups, wet and dry
Frozen food	Frozen vegetables, fruit or herbs
	Frozen potato products
	Frozen fish or seafood (without garnish)
	Frozen pizza, snacks or baguettes
	Frozen poultry products without side dishes
Confectionery	Chilled and non-chilled bars
	Chocolate bars (excl. cooking chocolate)
Savoury snacks	Potato potato chips and sticks
	Pretzel and savory pastries

Source: Own compilation.

For each product group in Table 1, data is available from Q3 2021 to Q4 2023, with values for the following variables available for each quarter:[15]

Table 2: Variables in the data set

Variables	**Example** *Drinking milk, 2021Q4, LEH total*
Expenditure in EUR	EUR 89.3 million
Purchase quantity in kilograms (kg) or liters (L)	76.5 million liters
Purchase quantity in packs	75.7 million packs
Average price in EUR/kg or EUR/L	EUR 1,17/L
Average price in EUR per pack	EUR 1.18/pack
Most frequent price in EUR/kg or EUR/L	EUR 1,05/L
Most frequent price in EUR/pack	EUR 1,05/L:
Share of action (%)	14,9%
Reach/penetration (%)	88,7%

Source: Consumer Panel Services GfK.

Reach or penetration measures the proportion of households that have purchased items in a particular product group at least once in a given quarter. In the 4th quarter of 2021, 88.7% of all households, i.e. around 3,550 households in the household panel, bought drinking milk from Austrian food retailers. This variable is therefore important, as too low a buyer reach is associated with a high level of uncertainty in the data collected. According to Consumer Panel Services GfK, manufacturers in product groups with a buyer reach of less than 2.5 to 3% should not be used for an in-depth analysis of expenditure, quantities and prices.

For product groups with barcodes (EAN goods), it is also possible to enter the data according to "Manufacturers" and "retailers", with "manufacturers" including manufacturers' branded products and "retailers" including retailers' own brands. For fresh products (e.g. fruit and vegetables), this subdivision cannot made.[16] Furthermore, a distinction can be made between the Big Four in Austrian food retailing and between conventional products and organic products, as well as filtering by household income. Table 3 provides an overview with brief explanations of the various dimensions in the data set.

[15] Expenditure was reported in EUR 1,000 and purchase quantities in tons, 1,000 liters or 1,000 packages. To facilitate readability in the second column, these variables were indicated in EUR, kilograms, liters and individual packages.

[16] In this context, the BWB had to approach the LEH with requests for information.

Table 3: Dimensions in the data set

Dimension	Explanation
Periods	– 3rd quarter 2021 to 4th quarter 2022 – 2nd half of 2021 to 2nd half of 2022
Variables	– Expenditure in EUR – Quantity (kg/L) – Quantity/package – Ø price (kg/L) – Ø price (pack) – Most frequent price (kg/L) – Most frequent price (pack) – Action share – Penetration
Manufacturer	– Packaged EAN goods can be identified by manufacturer for branded goods and by trading company for private labels. – In the case of fresh products, it is not possible to differentiate between manufacturers.
Food retail company	– LEH total – REWE o Billa o Billa Plus o Penny – Spar Group o Savings o Eurospar o Interspar – Hofer – Lidl – Rest (MPreis, Unimarkt, Nah&Frisch, etc.)
Organic products	– Total – Organic – Non-Bio
Household income (OECD definition)	– All households – Lowest income category with equivalent income of less than EUR 1,300 net – Highest income category with equivalent income of EUR 2,100 net or more

Source: Own compilation.

The data acquired from the GfK Consumer Panel Services on the individual product categories ultimately form the basket of goods used by BWB as the basis for the competitive analysis of the food market. An initial description of this BWB reference basket and a comparison with Statistics Austria's CPI and the food items it contains is provided in section 5.

4.2. RegioData

RegioData Research is a market research company that specializes in European consumer and real estate markets and offers a wide range of country-specific market data, small-scale structural data and location data. For the Austrian food retail sector, the company offers **industry indicators and location data**, both of which were acquired by BWB to analyze local food markets.

RegioData's industry key figures represent the situation of the food retail sector in Austria in 2022. These include information on

- Consumer spending per capita in EUR in total and broken down into different product categories (meat & fish, dairy products & eggs, fruit & vegetables, etc.),
- Sales volume in the Austrian food retail sector from 2009 to 2022 including forecast for 2023 and
- of the individual market players in the food industry in 2022 for the whole of Austria (industry data).

The industry data on the individual market participants includes information or estimates on the following key figures in 2022:

- Turnover in EUR million
- Number of locations
- Turnover in EUR per location
- Sales area in m^2
- Sales area per location in m^2
- Turnover per m^2 of sales area in EUR
- Market shares in %

The industry data provides an overview of the food retail sector throughout Austria, while the RegioData location lists allow a local breakdown of market conditions.

The location data includes all existing locations of chain stores and organized companies in the Austrian food retail sector. The 2023 edition acquired by BWB contains almost
5,000 locations with details of

- Company name
- Name of the parent organizations
- Address (zip code, town, street, house number)
- Area categories (101 to 250m^2, 251 to 500 m^2, 501 to 1,000 m^2, etc.)
- Revenue categories (up to EUR 250 thousand, EUR 251 to 500 thousand, EUR 501 to 1,000 thousand, etc.)
- Geocoordinates (longitude and latitude)
- Municipality, district and federal state

The list of locations allows the BWB to analyze the market structure (number of competitors, distance between competitors, concentration, etc.) of local food markets and, if necessary, to conduct targeted surveys in a local context.

4.3. Other data sources

In addition to data acquired from Consumer Panel Services GfK and RegioData, BWB used a wealth of largely publicly accessible data, in particular from Statistics Austria and Agrarmarkt Austria (AMA) Marketing GesmbH. During the conception phase of the industry study, intensive was made of data from Statistics Austria on the consumer price index, as well as the 2019/2020 and 2014/2015 consumer surveys. The AMA's rolling agricultural market analyses (RollAMA), which are carried out in collaboration with Consumer Panel Services GfK and KeyQU- EST Marktforschung, were also helpful. This is a household panel of 2,800 Austrian households with information on food purchases of fresh produce excluding bread. In addition, the AMA agreed to BWB with a selection of RollAMA quarterly reports free of charge. Finally, the Austrian National Bank (OeNB) analyzed daily price data from a selection of online stores in the Austrian food trade for BWB. Parts of this analysis were reused in various places in this report.

All data sources are not listed here in full. They can be found as references in the text where appropriate.

4.4. Request for information

Key data for the competitive analyses was obtained by requesting information from companies in the food retail and food industry. The requests for information sent out in the course of the industry survey can be found in Table 4 with brief explanations in chronological order.

Table 4: Requests for information in chronological order (1/3)

Date of dispatch	Addressees	Most important contents
16.12.2022	1. Rewe 2. Savings 3. Hofer 4. Lidl	General questions about – Sales and product range – Definitions (own and manufacturer brands, must-have products, etc.) – most important competitors – Pricing – Sales shares of product groups within all foodstuffs – Transmission of a list of must-have products in the range
22.12.2022	1. Rewe 2. Savings 3. Hofer 4. Lidl	Transmission of contact details of food suppliers 2021 and 2022.
15.03.2023	1,500 suppliers to the food retail trade in Austria and Germany	**Objective**: Identification of possible competition problems (with regard to demand power of the food retail trade) Questions mainly about – unfair trading practices – Perceptions and experiences in negotiations with food retailers
20.04.2023	1. Rewe 2. Savings 3. Hofer 4. Lidl	Questions about – Own brands (reasons for introduction? Differences in price trends compared to branded products? etc.) – Costs, cost pass-through and margin neutrality – Transmission of a list with the turnover, sales quantities and purchase prices of the must-have products transmitted in the first request for information

Table 4: Requests for information in chronological order (2/3)

27.04.2023[17]	13 companies in the stationary and online grocery trade	**Objective**: To take stock of the current situation in online grocery retailing Questions about – Sales and product range – Pricing (also algorithmic pricing) – Delivery areas and regional differences – Number of orders over the course of the week – Competitors – competitive parameters (e.g. barriers to market entry, price transparency, etc.)
15.06.2023[18]	14 Companies in the stationary food trade	Questions mainly about – Turnover, product range and sales area at each location in Austria – Business performance indicators – Turnover, sales and cost of goods sold for food excluding alcoholic beverages – company-related costs (personnel expenses, energy costs, marketing, etc.)
22.06.2023	1. Rewe 2. Savings 3. Hofer 4. Lidl	Questions on the FWBG (Fair Competition Act) and the unfair trading practices referred to therein
22.06.2023 (voluntary)	Seven price comparison platforms	General questions about – legal uncertainties – Difficulties in identifying, collecting and updating prices – Transparency measures to strengthen competition in the food retail sector
24.07.2023	1. Rewe 2. Savings 3. Hofer 4. Lidl 5. MPrice	Query from – Turnover, sales volumes and costs for 34 product groups (see Table 1) with breakdown by brand and private label manufacturer – Key business figures for the year 2023 (forecasts) – of turnover, sales and cost of goods sold for food excluding alcoholic beverages for 2023Q2 – of company-related costs (personnel expenses, energy costs, marketing, etc.) for the first half of 2023

[17] This request for information required a number of queries and there were also several supplements sent to the thirteen market participants in the online LEH, in which further questions were asked on various topics. Questions on: Influence of online LEH on competition in grocery retail, importance of the Click&Collect system, effects of a potential market entry by Amazon.

[18] This request for information required several queries with multiple transmissions of contact details, which is why it over several months into September 2023. The reason for this was the high number of independent dealers and merchants to whom requests for information also had to be sent. Due to the limited resources of these retailers, generous deadlines had to be granted in some cases.

Table 4: Requests for information in chronological order (3/3)

24.07.2023	71 brand manufacturers in 26 product groups (see Table 1)	Questions about – key business figures – Turnover, sales volumes and costs with breakdown by food retail customer – Costs of agricultural products in production – Costs passed on to the LEH – Net sales prices and cost prices of certain products
04.09.2023	44 manufacturers in 9 fresh product groups[19]	Questions about – key business figures – Turnover, sales volumes and costs with breakdown by food retail customer – Costs passed on to the LEH – Net sales prices and cost prices of certain products
06.09.2023	41 Own brand manufacturers in 26 product groups	Questions about – key business figures – Own brands (client, process, freedom of choice, advantages, etc.) – Costs passed on to food retailers (own brands vs. manufacturer brands) – Net sales prices and cost prices of best-selling products (own brands vs. manufacturer brands)
14.09.2023	1. Rewe 2. Savings 3. Hofer 4. Lidl 5. MPrice	Questions about – Pricing policy – Product range policy – Location policy – Business relationships with suppliers
26./29.09.2023	1. Rewe 2. Savings 3. Hofer 4. Lidl 5. MPrice	Questions about – Market observations – Price matching

Source: Own compilation.

Each request for information in turn required clarifications and queries in order to provide the best possible support to the addressees and to be able to interpret the feedback correctly and use it in the report.

[19] The fresh product groups include bread and pastries, fresh meat (excl. poultry), fresh poultry, fresh fish, sausage and ham, eggs, fresh fruit, fresh vegetables and cheese (in service). The 26 remaining product groups also contain cheese, but in any case with a barcode (EAN).

5. BWB reference basket

Competition between grocery retailers with extensive product ranges can hardly be described by comparing individual products and their characteristics (prices, quality, proportion of special offers, packaging, etc.). Ideally, customers would like to complete daily or weekly shopping in one store in order to minimize transaction costs (e.g. travel costs). For this reason, in the past the European Commission or the German Federal Cartel Office regularly made a distinction between full-range retailers plus discounters (Rewe, Spar, Hofer and Lidl) and specialty retailers (e.g. spirits retailers, fishmongers, cheese retailers, etc.) in the course of defining the market. Full-range retailers and discounters cover daily or weekly grocery requirements by offering the option of buying individual shopping baskets in a store. The BWB considers this range of shopping baskets to be the fundamental competitive parameter in the food market.[20] For this reason, the BWB decided against a limited consideration of a few food items and in favor of **analyzing a common shopping basket**.

In order to create an approximately representative basket of goods, the BWB primarily used the consumer price index (CPI) of Statistics Austria and the most important food items contained therein. In addition, an attempt was made to determine the importance of certain foodstuffs in the first information request to the food retailers (Rewe, Spar, Hofer and Lidl). involved asking for a list of must-have products, i.e. products that must generally be available in the stores in order to meet customer expectations. BWB considers these products to be particularly important for the competition, which is why the most frequently mentioned must-have products were included in the shopping basket. In total, over **1,200 items** were named **must-have** products by the top 4 grocery retailers in Austria (Rewe, Spar, Hofer and Lidl). Not quite 700 of these items can be grouped into product groups, which can also be found in the BWB shopping basket (see Table 1). Of the ten product groups associated with the most frequent mentions of must-have items, eight were included in the BWB shopping basket[(21).]

In 2022, food and non-alcoholic beverages were **included** in **Statistics Austria**'s CPI with a weighting of 11.35%**. An attempt to allocate the items contained therein to the product groups**

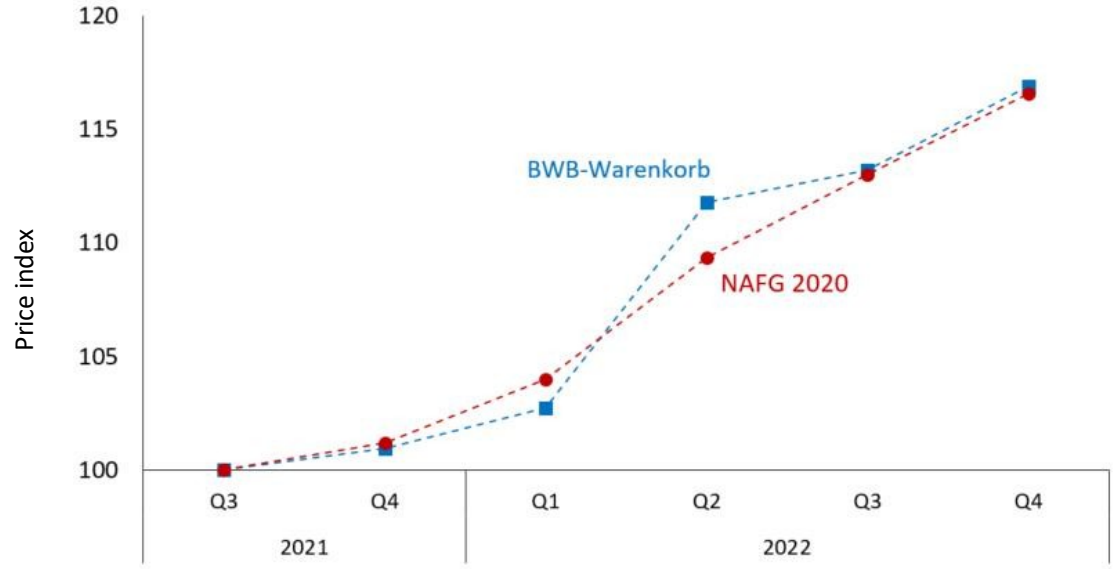
[20] If we assume for the sake of simplicity that a store offers ten different products, 1,023 different shopping baskets can be put together with this offer. With 20 different products, the number of different shopping baskets is already over one million. However, these calculations are only a lower bound, as it is assumed that each product can only appear once in the shopping basket. The formula for calculating these values is $2^x - 1$, where x is the number of different products. Full-range retailers and discounters each maintain product ranges consisting of several thousand items.

[21] If you break this down precisely to articles, this corresponds to a coverage rate of just under 90 percent, as the top 6 product groups can all be found in the BWB shopping basket.

in the BWB basket would result in a weighting of 8.49% in the CPI in 2022. Accordingly, around 75% of the items for food and non-alcoholic beverages are covered.

Figure 6 compares the price trends of the BWB basket of goods and food and non-alcoholic beverages (NAFG) in the CPI of Statistics Austria over the year 2022. Over the year as a whole, both baskets of goods show the same average price trends. From the first to the second quarter, the BWB basket of goods increased in price by a few percentage points more than the NAFG in the CPI. However, there was complete convergence in the last two quarters of 2022.

Figure 6: Comparison of BWB basket of goods with CPI 2020



Note: NAFG 2020= Food and non-alcoholic beverages in the consumer price index 2020. The consumption quantities in 2022 were used as the quantity weighting in the BWB basket of goods.

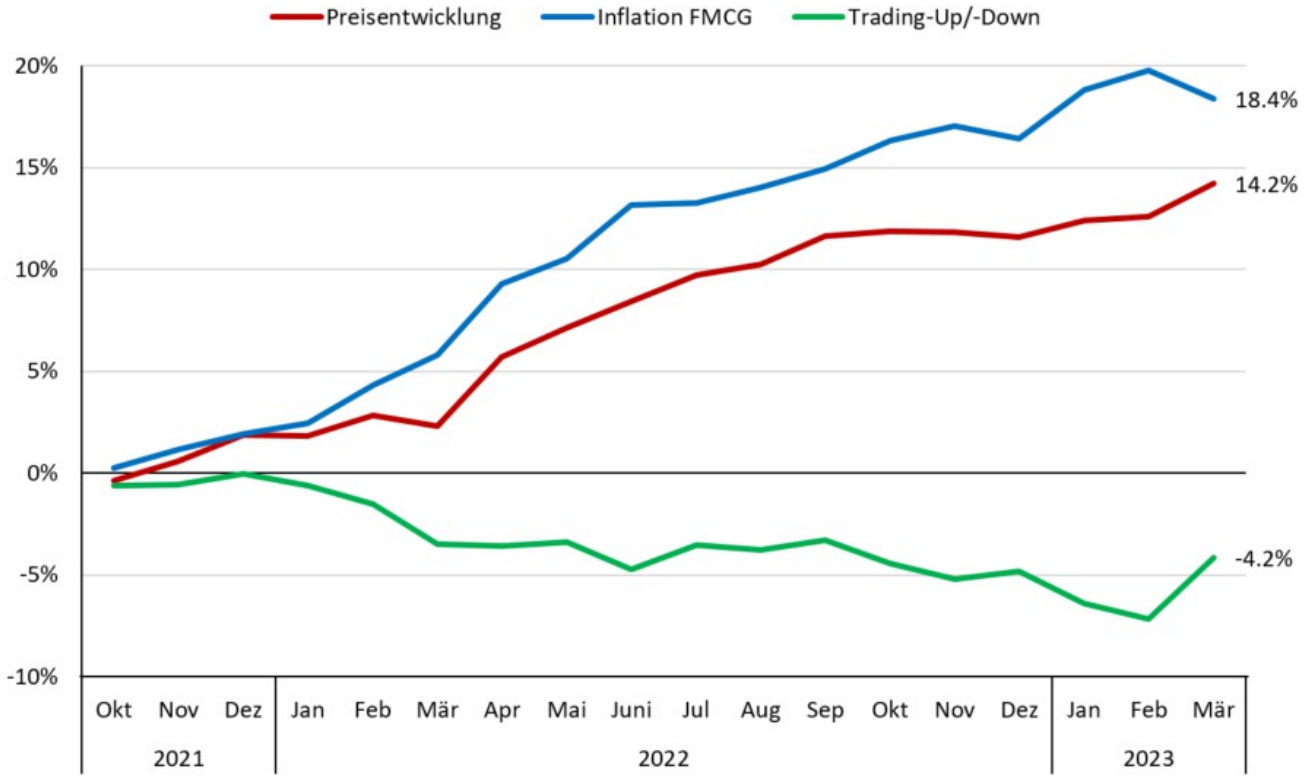
Source: Statistics Austria, Consumer Panel Services GfK; own calculations.

Fresh fruit and fresh vegetables are two items with a high weighting in the BWB basket, whose prices rose significantly more from the first to the second quarter than in the CPI and can almost completely explain the discrepancy in Figure 6. The price trends of other items in the BWB basket also differ from comparable items in the CPI. On average, however, these balance each other out.

Finally, it should be noted that changes in the average prices paid in the Consumer Panel Services GfK data should not be equated with food inflation. The development of prices paid by households within the product groups corresponds to a combination of product price changes and a so-called trading up or down. For example, if consumers switch to cheaper products (for the same quantity), the average price paid will fall, regardless of whether the item prices have changed. Switching to cheaper products is referred to as trading down. If, on the other hand, you switch to a more expensive

product (for the same quantity), for example by replacing a conventional product in the personal shopping basket with an organic product, this is referred to as trading up and the average price paid increases. Figure 7 shows the effect of this switch to either cheaper or more expensive alternative products. Over the period from October 2021 to March 2023, there was unsurprisingly a switch to cheaper alternative products in response to price increases. This made it possible to reduce the effect of price increases on the household goods basket by more than four percentage points over this period. This substitution effect in response to changes in relative prices must regularly taken into account in the analyses below. Figure 6 also uses the average prices paid to calculate the inflation rate of the BWB basket of goods. However, the substitution effect does not lead to any divergence between the price indices of the two baskets of goods.

Figure 7: FMCG inflation rate (in % compared to the same month of the previous year)



Note: FMCG= fast moving consumer goods.

Source: Consumer Panel Services GfK (Workshop).

The BWB's product selection results in a representative basket of goods, meaning that the analyses in the report are largely able to describe the situation for food consumers in Austria as a whole.[22] The most significant limitation is the focus on the last two stages of the food value chain. **On the other hand, the most significant advantage of the BWB-**

[22] The BWB basket's share of food and non-alcoholic beverages in the GfK Consumer Panel will be around 64% in 2022.

The main advantage of the BWB shopping basket for competitive analyses is the high coverage of the must-have products most frequently mentioned by food retailers. Table 5 shows the BWB shopping basket, a detailed list with examples can be found under point 11 at the end of the report in Table 18.

Table 5: Overview of BWB shopping cart (1/3)

Goods basket	Product group	Description
Non-alcoholic drinks	Carbonated Li-monades	Alcohol-free lemonades enriched with carbon dioxide
	Fruit juices and nectars, sparkling drinks containing fruit juice (≥ 25%), smoothies	Unchilled and chilled ready-to-drink fruit juices, nectars, fruit drinks, smoothies
	Mineral, table and soda water as well as (slightly) flavored water ("near water")	Mineral, table or soda water (still and sparkling);
	Still drinks and li-monades with a low fruit juice content (< 25%)	Still soft drinks/beverages with less than 25% fruit juice content
Hot drinks	Roasted bean coffee (whole beans or ground)	Roasted coffee (whole bean or ground)
	Soluble coffee beans (instant coffee)	Instant coffee (fast-dissolving powder or granules made exclusively from roasted coffee and water)
Meat	Fresh meat (excl. poultry)	Fresh meat from pork, beef, veal, sheep/lamb, game, rabbit, horse, etc., including offal and bones, served and self-service;
	Fresh poultry	Fresh poultry meat (chicken, turkey, goose, duck, pigeon, game birds, ostrich, etc.), including offal, served and self-service;
Fish	Fresh fish and fresh seafood	Fresh, edible fish (saltwater and freshwater animals)
Sausage	Sausage, ham and bacon (open and pre-packed from service or self-service)	Fresh sausage/sausages/ham/bacon from service or self-service, i.e. open or pre-packed
Eggs	Eggs fresh and cooked (open and packed)	Fresh and cooked hen's eggs, open or packaged, eggs from wild birds (e.g. quail eggs)
Fruit	Fresh fruit, unprepared (open, pre-packed, incl. peel fruit)	Fresh fruit, open or pre-packed from the fruit and vegetable department

Table 5: Overview of BWB shopping cart (2/3)

Vegetables	Fresh vegetables (open and pre-packed)	fresh vegetables, open or pre-packed from the fruit and vegetable department;
Bread/pastries/ pastries	Bread and pastries (open and pre-packed, incl. baked goods)	Open and pre-packed bread and pastries, breadcrumbs, bread cubes, baked bread and pastries
Dairy products	Drinking milk (fresh/ESL/shelf stable)	Animal milk without added flavor and with different fat contents. fat content: Fresh milk, ESL milk, long-life milk
	Natural yogurt (incl. kefir and skyr)	Animal milk thickened by lactic acid bacteria thus preserved for longer - without additives
	Fruit yogurt (incl. kefir and skyr)	Animal milk thickened by lactic acid bacteria and thus preserved for longer - with additives (honey, muesli, various flavors and fruit coatings) Additives can be stirred in, layered or present in corners/lids
	Hard cheese, semi-hard cheese and soft cheese	Hard cheese: cheese with a firm to very firm cheese paste and low water content Semi-hard cheese: slightly softer than hard cheese Soft cheese: soft, smooth consistency (all forms: pieces, slices, cubes, portions, grated cheese)
	Butter, margarine and mixed fats (**yellow fats**)	Butter, margarine (spreadable fat made predominantly from vegetable substances) and mixed fat (all shapes: cubes, blocks, cups, portions, etc.)
Basic food	Cooking oil	liquid edible fats at room temperature (e.g. all common vegetable oils, mixed oils, single-variety)
	Rice	all types of sprouted rice (i.e. real grain), raw rice, pre-cooked/microwave rice, unseasoned and seasoned/flavored rice, mixtures of rice and other cereals, if these consist mainly of rice;
	Stuffed pasta (uncooled and dry)	all uncooled, dry pasta, filled
	Unfilled pasta (unrefrigerated and dry, excl. Asian pasta)	all uncooled, dry pasta, unfilled, in all shapes and colors
Convenience	Muesli and traditional cereals	Traditional cereals: breakfast products made from cereals for adults and children. Muesli is a preparation made from rolled oats and other cereal-based products (such as corn flakes) as well as fruit or dried fruit, which is usually eaten for breakfast with milk, soy milk, yoghurt or fruit juice. In contrast to *porridge*, the oats are not cooked, but simply soaked
	Chilled soups, wet and dry	contains dry soups/pouched soups and wet soups can be kept unrefrigerated or refrigerated

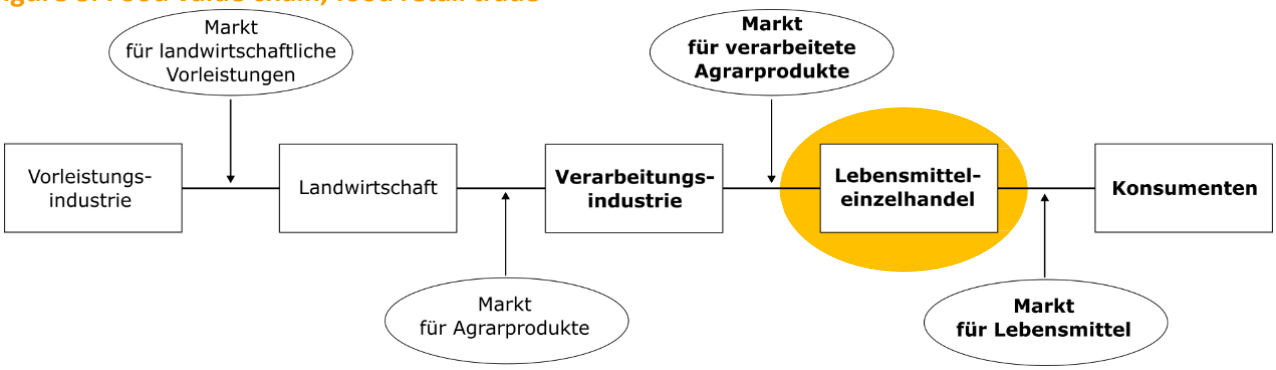
Table 5: Overview of BWB shopping cart (3/3)

Frozen food	Vegetables, fruit or herbs frozen	contains frozen vegetables (raw/unseasoned) frozen fruit/fruit, frozen herbs, frozen mushrooms and frozen tomato paste
	Frozen potato products	Contains frozen potato products
	Frozen fish or seafood (without garnish)	Frozen fish without garnish: whole or in other forms (fillets, blocks, steaks, sticks, etc.), natural (unbreaded and unprepared), breaded (traditionally breaded, lightly breaded (incl. batter (not puff pastry) or crispy breading (e.g. pumpkin seed breading, potato crust, etc.), processed into fish loafs, prepared (seasoned, marinated, marinated on skewers with/without vegetables, etc.)
	Frozen pizza, snacks or baguettes	All types of frozen pizza (Italian, American, Greek, Lahmacun=Turkish pizza)
	Frozen Poultry products without side dishes	all frozen poultry products without garnish, which are pre-cooked or pre-baked, breaded or unbreaded or offered with sauces (also with dip)
Confectionery	Chilled and non-chilled bars	Non-chilled bars: all non-chilled confectionery in bar form (normal or mini) mostly with, but also without chocolate coating, which are narrow enough to bite off across the entire width - also known as "sticks" (e.g. Frey Stängel). They are offered individually and in multipacks (their minis, but not the miniatures, are also included). Chilled bars: all chilled bars, such as cake bars, wafer bars, chocolate bars and cream cheese bars, i.e. vitrine-chilled desserts in bar form
	Chocolate bars (excl. cooking chocolate)	Chocolate bars (eating chocolate) include all chocolates that are shaped in such a way that they can be broken into bite-sized pieces. Most bars have regular breaking grooves and are square or rectangular. However, other shapes that can be broken into pieces also count as chocolate bars; they can also be portioned (as pieces or bars) as long as they are offered in a normal-sized bar-like package
Savoury snacks	potato potato chips and -sticks	Potato-based snacks that are not extruded, such as trad. Potato chips in a bag (cut from whole potatoes), stacked chips (pressed, baked chips made from potato flakes and other ingredients such as oil etc.) and potato sticks (cut from whole potatoes).
	Pretzel and savory pastries	contains pretzels & savory cookies. Lye cookies: snacks with a typical, shiny brown surface, which is obtained by special pre-treatment during baking, savory cookies: other savory cookies

Source: own presentation.

6. Food retail

Figure 8: Food value chain, food retail trade



Source: own presentation.

6.1. Market structure

In competition, companies are confronted with framework conditions or evolved conditions that they cannot substantially influence in the short term. The interrelated whole of these conditions and circumstances is referred to as the market structure and influences the entrepreneurial playing field in which profitable business decisions can be made. The following variables should be mentioned here in particular:

- Total market volume and growth;
- Number, distribution, size and market shares of market participants in sales and procurement markets;
- regulatory and technological barriers to market entry;
- Cost structure (technologies, economies of scale and scope); and
- Degree of market transparency

This chapter aims to describe the market structures for Austrian food retailers in sufficient detail. The focus here is on stationary food retail. The following definition can be derived from the responses to the first request for information to the Big Four[23] Austrian food retailers:

In any case, stationary food retail comprises all retail businesses with fixed locations (markets, containers, etc.) that the end customer visits to purchase (i.e. order and pay for) goods, in particular food.

[23] The "Big Four" the four leading companies in terms of national sales shares: Rewe, Spar, Hofer and Lidl.

This is to be distinguished from what could be termed the out-of-home form of retail, including online grocery retail. In contrast to in-store purchases, goods are ordered online and delivered to the end customer's desired address for collection by the retailer. The feedback was not clear as to whether the collection of goods ordered online from the store be counted as stationary or online grocery retail. One grocery retailer considers this combination to be online grocery retail "in the broader sense", but not "in the narrower sense". For two other grocery retailers, however, online grocery retail includes those transactions that were both ordered and paid for online, regardless of whether the goods were delivered by the retailer or picked up by the buyer at the store. However, if goods ordered online were only paid for in the store, this transaction is attributed to the stationary grocery trade. Irrespective of the difficulties of drawing a line between brick-and-mortar and online grocery retail, the combination of online ordering and pick-up at the store can be subsumed under the term click&collect grocery retail, which experienced a boom, especially during the COVID-19 pandemic.[24]

In summary, the following definition of stationary food retailing will be used for the purpose of this report:

In any case, stationary food retail comprises all retail businesses with fixed locations (markets, containers, etc.) that the end customer visits to purchase (i.e. order and pay for) goods, in particular food. In a broader sense, stationary food retail also includes the collection and payment of goods ordered online at the store.

6.1.1. National sales shares

The European Commission's case practice considers all companies that sell a comprehensive range of everyday consumer goods to predominantly private end customers in the relevant product market of food retailing.[25] This primarily includes goods in the food and near-food sector.[26] The associated distribution channels include at least hypermarkets, supermarkets and discount stores. Specialty retailers (e.g. bakers or butchers), petrol station stores or small outlets (kiosks) are not included, as they hardly offer consumers the opportunity to cover their daily food needs in a store.

In its decision-making practice, the German Federal Cartel Office assumes a uniform food retail market that includes all sales channels and the product groups food (core food retail range) and non-food 1 (non-core food retail range).[27] However, the food retail market does not include companies in the specialist drinks trade, the specialist food market (butchers, bakeries, etc.) and drugstores. Non-food 2

[24] https://retailreport.at/click-collect-auf-der-ueberholspur

[25] See e.g. COMP/M.10201 - *Ahold Delhaize/Deen Assets*, para. 13.

[26] The near-food segment is also regularly referred to as the non-food 1 segment and primarily includes detergents, cleaning agents and cleaning products as well as hygiene and personal care products. It also includes pet food.

[27] See in particular B 2-96/14 - Edeka/Tengelmann, para. 161 et seq.

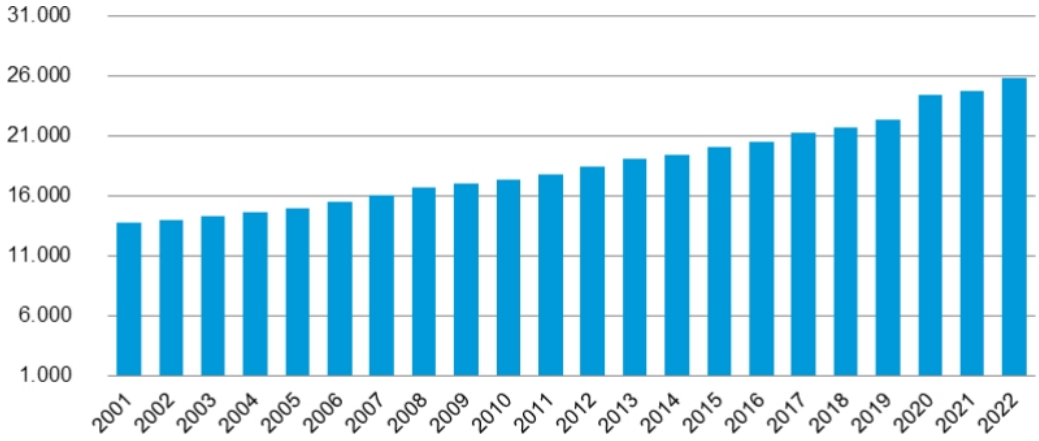
Products (such as clothing, electronics, etc.) are seen merely as a marginal assortment, "which is not necessarily expected by consumers in food retail", is more likely to be stocked by discounters in promotional areas and where
"completely different competitive conditions than in the pure food sector" would prevail, "since in addition to the companies with a focus on food retailing, a large number of other providers are active here who, addition to stationary retailing via department stores and specialist retailers, are increasingly also using online retailing". Online retailing was of no relevance to the German FCO's last major review.

In its decision-making practice to date, the BWB has been guided by the European Commission's market definition (e.g. in its assessment of the Z-2178, Z-1883 and Z-1706 mergers concerning Pfeiffer/Zielpunkt). In Austria, therefore, a uniform food retail market is still to be assumed, which includes food and non-food 1 products and does not differentiate between the distribution channels[28].

The non-food 2 segment is also taken into account in the following overview. As these items are mainly found in hypermarkets and do not play a major role in the Austrian food retail sector as a whole, the figures shown can also be applied to the relevant market without non-food-2 products without restricting the overall picture. Finally, in the more in-depth analyses below, BWB limits itself to the core range of food retail: food.

Data from RegioData shows annual sales growth of more than three percent in the Austrian food retail sector since 2001. From 2001 to 2022, gross sales (food and non-food) doubled and amounted to almost EUR 26 billion in 2022 (Figure 9).

Figure 9: Gross sales of the Austrian food retail sector (in EUR million)

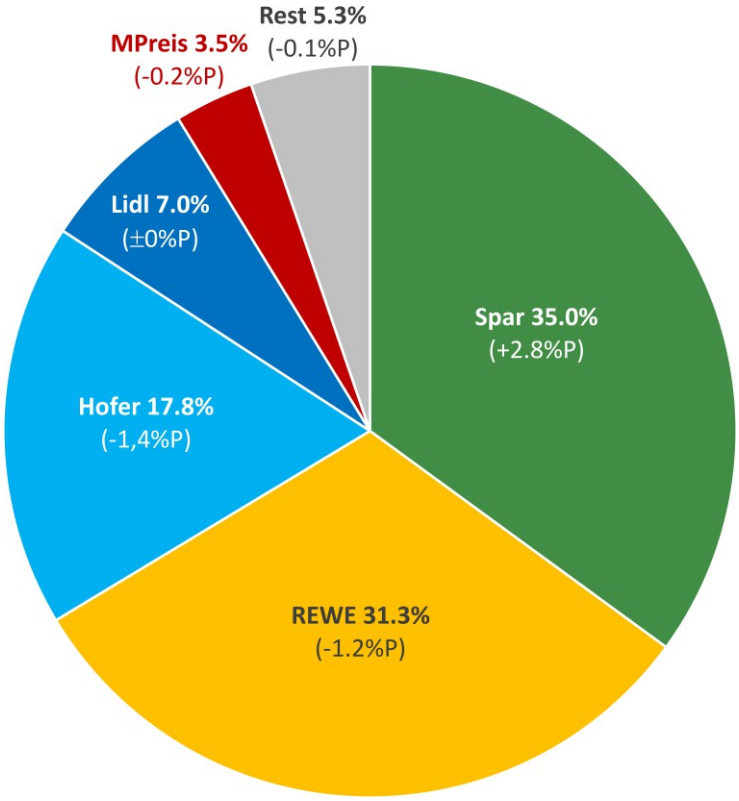


Source: RegioData Research GmbH.

[28] The geographic market definition in the antitrust sense is set out below under point 6.1.3.

In 2022, Spar was the largest food retailer with gross sales of around EUR 9 billion and an Austria-wide sales share of around 35% (Figure 10). It was followed by Rewe (Billa, Billa Plus, Penny and Adeg) with 31.3% and the two discounters, Hofer and Lidl, with shares of 17.and 7% respectively. MPreis followed in fifth place with a share of 3.5 . The special position of MPreis in Tyrol with significantly higher regional market shares is discussed in a separate sub-chapter below. In summary, it can be said that the food retail sector **highly concentrated throughout Austria**. The top 4 control around 91 percent of the total volume in food retail. In comparison, only 76 percent of food retail in Germany is controlled by the top 4 (Edeka, Rewe, Schwarz and Aldi)[29].

Figure 10: Sales shares in Austrian food retail in 2022 (2022 vs. 2019)



Note: The values in brackets show the change compared to 2019 in percentage points (%P).

Source: RegioData Research GmbH.

During the COVID-19 pandemic in **2020 and 2021**, Spar was able to increase its Austria-wide sales share and overtake Rewe as the leading company in the Austrian food retail sector. Both Rewe and Hofer suffered losses, while Lidl was able to maintain its share of sales.

[29] See https://de.statista.com/statistik/daten/studie/4916/umfrage/marktanteile-der-5-groessten-lebensmitteleinzel-haendler/

In the long term, the following historical structural developments can be noted:

- **2016 to 2019**: With the exception of the insolvency of Zielgruppe GmbH (market share in 2014: approx. 3%) at the end of 2015, the takeover of 94 Zielpunkt stores and the closure of more than 100 Zielpunkt stores, there have been no fundamental shifts since then.[30] Although the two discounters, Hofer and Lidl, were able to gain a few percentage points, the overall picture and the relative distribution of sales between supermarkets/hypermarkets and discounters changed very little.[31]
- **2005 to 2016**: Based on Nielsen data, the combined market share of the two market leaders, Rewe and Spar, was less than 60% in 2005 (Rewe 29.5%, Spar 27.6%). Hofer achieved 18.8 percent, while Lidl had to make do with 2.7 percent. In addition, Adeg came in with 6.6 percent, ZEV Markant with 5.4 percent and Zielpunkt/Plus with 5.0 percent. The Markant Group includes Unimärkte (Pfeiffer) and Nah&Frisch stores (Kiennast, Kastner and Wedl), most of which are still operated today with lower sales shares. Most of the former Zielpunkt stores were closed by 2016 and some were taken over by other retailers in 2016. The gradual integration of Adeg into the Rewe Group took place between 2006 and 2007.[32] As a result, Rewe was able to increase its Austria-wide share of sales by 4.5% in 2008.[33]
- **1990 to 2005**: Aiginger, Wieser and Wüger (1999) attribute the increasing concentration of the food trade to the intensification of competition as a result of EU accession, the considerable expansion of the large retail chains, the Konsum bankruptcy in 1995, the takeover of the Familia stores by Spar in 1996 and the partial takeover of Meinl by REWE in 1999.[34] While Rewe and Spar still had a joint market share of 35.1 percent in 1992, this had already risen to 56.8 percent by 1998. In the years after 1995, Rewe and Spar in particular were able to absorb the market share of Konsum (1995: 14.5 percent) and thus greatly improve their market position. In addition to this trend of increasing concentration in the 1990s, 1998 saw the market entry of Lidl, a second hard discounter alongside Hofer, which was able to establish itself in Austria over the following two decades and gain increasing market share.

[30] Of the 94 Zielpunkt stores taken over, 21 went to Rewe/Billa, 27 to Spar, 11 to Hofer and 2 to Lidl.

[31] See Böheim, Pennerstorfer and Sinabell (2016): Structural Adjustment in the Austrian Food Trade - Effects on Supply and Implications for Competition Economics. WIFO Monthly Report 89 (3), p. 171-183.

[32] The acquisition of a minority stake of 24.9 percent in ADEG by REWE in 2006 was not notifiable under Austrian antitrust law. See the press release of November 24, 2006: https://www.bwb.gv.at/news/news-2006/detail/geplanter-einstieg-rewe-bei-adeg. On the other hand, the planned increase from 24.9 to 75 percent was notified to the European Commission in 2008 (COMP/M.5047 - *REWE/ADEG*). The transaction was approved without conditions in the same year. See the press release from June 23, 2008: https://ec.eu- ropa.eu/commission/presscorner/detail/en/IP_08_995.

[33] For the market shares in 2008 (data basis: Nielsen), see https://www.cash.at/handel/news/nielsen-strukturdaten- leh-wuchs-2008-um-42--der-dfh-um-44--281

[34] Aiginger, Wieser and Wüser (1999): Market power in food retailing. WIFO Monthly Report 12/1999, 797-809.

- **1960s to 1980s**: These decades saw a strong structural change with the decline of grocery stores and the emergence of grocery chains with a self-service concept. While there were still around 24,000 shops in 1960, this figure had fallen to just under 10,000 by 1990.[35] The BILLA Group (BML) in particular was able to expand strongly in the 1980s and was also successful with a discount store (Mondo; now Penny). Between around 1960 and 1990, the market structure that can found in the food retail sector today at the beginning of the with great strides. The food retail sector was characterized by individual merchants and self-service in the individual stores was not yet common. Further retail chains such as **Hofer** and **Löwa** were founded and, subsequently, several Austrian food retail market players were taken over by various national and international competitors. For example, in 1968 Aldi acquired the Hofer retail chain, which had been founded in 1962, and the German **Tengelmann** retail chain **took over Löwa** in 1972 (which later appeared on the market under the name **Zielpunkt**).
- **1950s**: In 1950, the Konsumgenossenschaft ("Konsum"), the first self-service store in Austria, was established. Three years later, Billa was founded. This was followed by the founding of Spar in 1954. This decade laid the foundation for the success of self-service stores, which led to a comprehensive structural change in the food retail sector in the following decades.

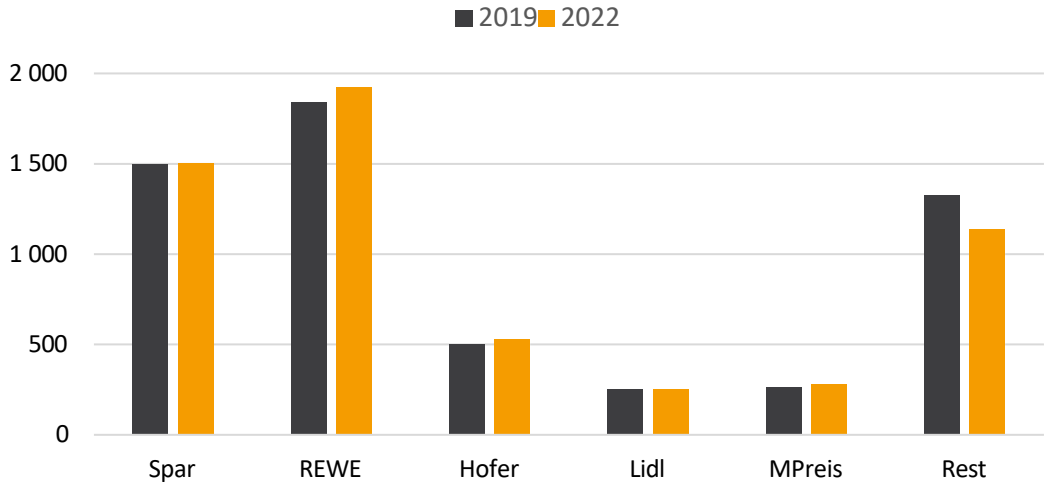
In summary, the current market structure in Austrian food retailing can be traced back to **gradual upheavals in the 1950s to 1980s** as well as to insolvencies and takeovers, particularly in the **1990s**, but also in the 2000s and . Over the last few decades, the food retail sector has **fossilized** into the current **market structure with a slight tendency towards greater concentration**.

6.1.2. Branch network

Austria is known for its high store density in the food retail sector. The more than 5,630 stores in Austria in 2022 correspond to a store density of more than 62 per 100,000 inhabitants. In the years of the COVID-19 pandemic, however, there was a decline of two stores per 100,000 inhabitants. In 2019, the store density was over 64 with just over 5,680 locations. This decline in locations is mainly due to the exit of Nah&Frisch stores. 11 shows the store locations of the five largest retail chains and a residual position in which local suppliers (e.g. Nah&Frisch) and other supermarkets (Unimarkt) can be found. Between 2019 and 2022, there were more than 200 market exits by local suppliers (especially Nah&Frisch). However, with the exception of Lidl, Spar, Rewe, Hofer and MPreis expanded their store networks over this period. In absolute terms, Rewe stands out in particular with an increase of almost 80 stores. The top 4 in terms of sales (Spar, Rewe, Hofer and Lidl) operated around 75 percent of all Austrian food retail locations in 2022. In 2019, however, this share amounted to around 72%.

[35] See p. 7 in BML (2012): Lebensmittel in Österreich, Zahlen-Daten-Fakten 2011: Vom Erzeuger bis zum Verbrauer.

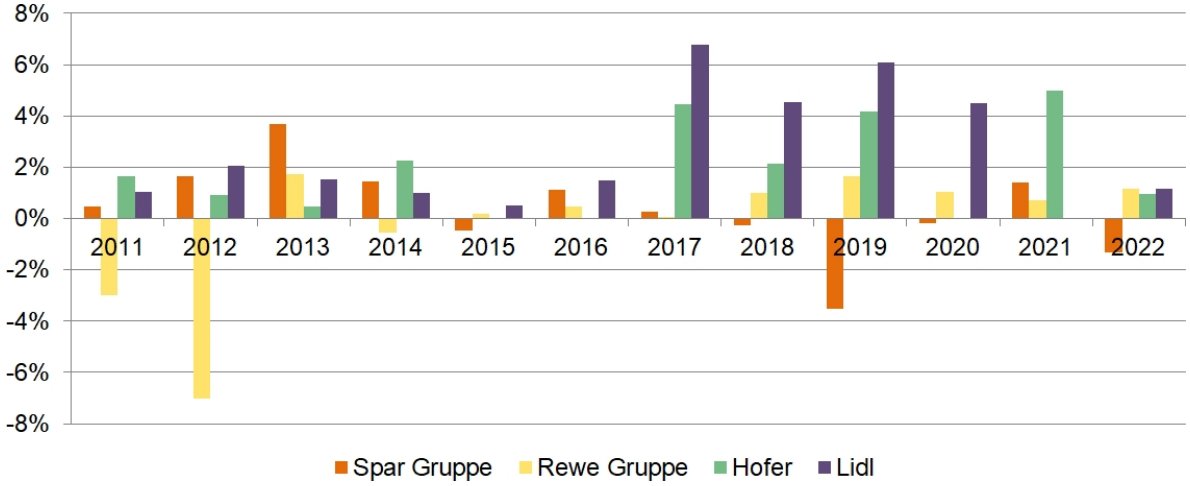
Figure 11: Store locations in 2022 and 2019



Source: RegioData Research GmbH.

As Figure 12 shows, the Big Four have been on an expansion path since 2013. Overall, however, the number of locations in food retail has been declining for many years.[36] Both the national share of sales (see Figure 10) and the share of locations in Austria have shifted in favour of the Big Four not only in the years from 2019 to 2022, but also in previous years.

Figure 12: Change in the number of locations of the Big Four



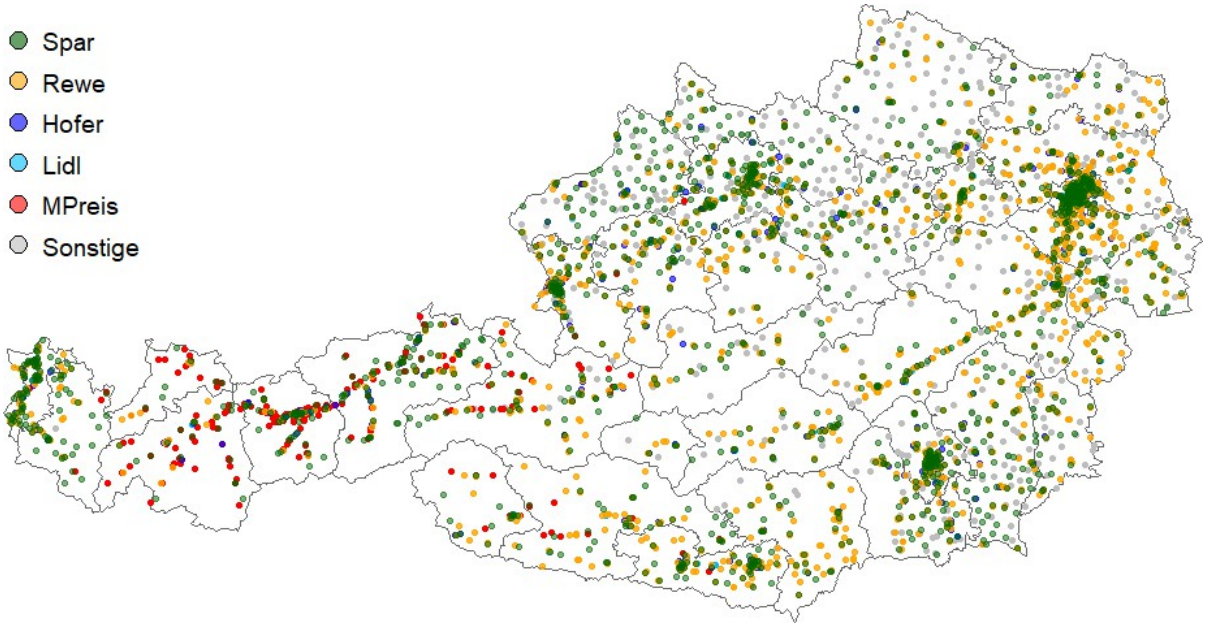
Source: RegioData Research GmbH.

The geographical distribution of store locations in Austria in 2022 can be in Figure 13. Due to the high store density, the security of supply of food retailers in Austria can be described as extraordinarily high. While the distances to the nearest grocery store therefore relatively short, the high fixed and logistics costs can be seen as a potential

[36] https://www.regiodata.eu/oesterreich-standorte-im-lebensmittelhandel/

Disadvantages for consumers were identified, as the stores are characterized by relatively small sales areas on average compared to other European countries.

Figure 13: Geographical distribution of branches



Source: RegioData Research GmbH.

In the BWB consumer survey, which is discussed in detail in section 9.1, respondents were also asked about their willingness to travel longer distances if they could save money.[37] On the one hand, almost 75 percent stated that they would be willing to travel or walk longer if it meant saving money. In fact, the savings would have to amount to an average of 18.5 percent of the total expenditure on a week's shopping (around EUR 135) in order to an extra trip of ten minutes. The high store density in Austria can therefore be desirable from a consumer perspective. The importance of accessibility and short travel times for consumers can serve as an explanation as to why retailers operate a dense branch network and in some cases continue to expand it. This underlines the importance of a narrow or regional market definition in the context of merger control, which will be illustrated in the following chapter.

6.1.3. Local markets

In antitrust practice and court rulings, market definition is of great importance in order to determine which companies are in competition with each other. The market definition must be carried out (i) factually and (ii) geographically. In factual terms, the demand market concept is used to determine which products or services interchangeable from the customer's point of view. Spatially, it is determined which potential suppliers a customer considering. Typical spatial definitions are worldwide, EEA-wide, national, regional or local (e.g. radii in road kilometers or travel time in minutes). Due to the preferences of consumers, the

[37] 1,000 consumers were surveyed.

Food retailing is a local market definition practice. Although most food retailer locations in Austria (and in other European countries) are by companies that are at least nationally active, it is unlikely that consumers will look for alternatives that exceed a certain travel time in the event of a price increase. The trip to grocery stores is associated with search and transportation costs and thus consumers are limited to local alternatives.

In order to define local markets for individual locations, it is common practice to calculate catchment areas. Catchment areas can be of different nature, either based on a certain distance (isodistance) or on a certain travel time (isochrone). Furthermore, what is at the center of the catchment area, company location or consumer, depends on the situation to be investigated. One argument is that if goods or services are brought to the consumers, the companies should be at the center of the catchment area (firm-centric ap- proach), while in the case that end consumers drive to the companies to purchase the goods, the consumers should be at the center of the catchment area (consumer-centric ap- proach). The logic behind this is that consumers consider how far they are willing to travel from their home to buy their groceries based on their location, while in the firm-centric approach, companies make decisions based on their catchment area. Approximatively, the two approaches should provide similar results, although individual deviations are possible, for example, if a consumer is located directly in the middle between two providers.

The advantage of the consumer-centric approach is its proximity to the demand market concept and is increasingly used in sectors where there are few customers with fixed locations (e.g. individual companies in procurement markets). The disadvantage from the authorities' point of view is the intensive data requirements, especially in the case of numerous heterogeneous customers. Since living in Austria naturally has to eat, this means that virtually every household buys food. The amount of data required for such an analysis would be very high. Therefore, **local concentration measures** are calculated for this report **using a firm-centric approach**, which also corresponds to the approach used in the assessment of cases by other competition authorities and the European Commission[38].

6.1.3.1. Size of the catchment areas

In the Carrefour/Promodes case[39], for example, the **French** competition authority defined the catchment areas in rural locations with a travel time of 15 minutes, but only within a radius of 300-500 meters in inner-city locations. The Spanish authority, on the other hand, drew the boundaries further and considered 15

[38] See e.g. COMP/M.10992 - KAUFLAND / SCP REAL ASSETS para. 13 COMP/M.5134 - SPAR / PLUS HUNGARY para.13 et seq., BKartA/B

2-96/14 - Edeka/Kaiser's Tengelmann para. 208 et seq.

[39] Cf. COMP/M.1684 (Carrefour/Promodes), whereby the market definition was carried out by the Spanish and French competition authorities.

minutes in urban areas and 30 minutes in rural areas as relevant catchment radii[40]. The **British** CMA[41] also differentiated between urban and rural areas according to the size of the food retail store. For example, locations with a sales area of over 1,400 m² were assigned a catchment area of 10-15 minutes by car, while smaller stores with an area of less than this assigned a catchment area of only 5-10 minutes. [42] The **European Commission** also describes catchment areas as the "radius around a store of 10 to 30 minutes' drive, which can vary depending on various criteria"[43]. Although the exact definition of the radius of the isochrone varies in different Commission decisions, the approach is the same throughout. In the FCA's view, the different exact delimitations underline the need to respond to market conditions where possible.

The German Federal Cartel Office used a so-called dominant regional center with a radius of 20 km or 20 minutes away for various case decisions and the sector inquiry in 2014[44]. This is more akin to a consumer-centric approach, which would also be a suitable approach according to the economic literature. However, the reduction to a single regional center simplifies the reality. In addition, the BKartA distinguishes between rural areas, for which the regional center described above is used, and inner-city locations, for which individual urban districts form the basis. However, this can lead to the market definition focusing heavily on administrative boundaries, especially in urban locations.

The data available to the BWB contains a variable for sales area. This was obtained directly from the operators by requesting information from the FCA. The data structure therefore allows a similar approach to the **British CMA** to be taken, namely that not only an urban-rural distinction is made, but also one based on the sales area of the store. Intuitively, one can imagine that smaller local suppliers, especially in rural , are used for "quick shopping in between". For bulk shopping, however, it stands to reason that consumers are willing a greater distance to a grocery store location they can do their entire weekly shopping because it offers a wider and deeper range of products.

The classification into urban and rural areas is based on the urban-rural typology of Statistics Austria[45]. This divides all Austrian municipalities into eleven different degrees of urbanization. On the basis of the classification proposed by Statistics Austria, BWB classifies the

[40] See e.g. CNMC/376/11 Leclerc/Activos Eroski para. 51

[41] Cf. CMA (2008). The supply of groceries in the UK market investigation para. 4.135 et seq.

[42] See Durand, B. (2021). The Competitive Assessment Of Mergers In Retail Grocery Markets: A Basket Case?, 3(1) 14-21.

[43] See .COMP/M.10774 - KAUFLAND / SCP REAL ASSETS para. 16

[44] Cf. Bundeskartellamt. (2014). Sector inquiry into food retailing, p. 77

[45] Cf. Statistics Austria, Regional breakdowns Regional breakdowns - STATISTICS AUSTRIA - The information managers

three categories with the highest degree of urbanization as "Urban area" and the rest as "Urban area". "Rural area".

The distinction between small and large locations is based on the model of the British CMA. In line with this, the BWB sets the limit between small and large locations at 1,400 m² sales area[46], which means that just over 6% of locations are classified as "large". However, this classification does not apply to hard discounters such as Lidl, Penny and Hofer. The underlying explanation for this is that the main argument for shopping at discounters is probably not so much the reduced range and depth of the product range (and thus the sales area) compared to full-range stores, but rather the low prices. It is therefore quite conceivable that discounters have a larger catchment area than their sales area would suggest. As a result, the BWB automatically the catchment area of large locations to hard discounters, regardless of their actual sales area. Likewise, no subdivision by size is made in urban areas. The consumer survey conducted in the course of the sector study[47] showed that in Vienna, which serves as an example of an urban area, a good half of all consumers do their shopping on foot and within **5 minutes walking time**, over 80% less than 10 minutes. Selected results from the consumer survey can be seen in Table 6:

Table 6: Selected results of the consumer survey (1/2)

Means of transportation used for grocery shopping					
Federal state	**Bicycle/ Scooter**	**Footpath**	**Public transportation**	**Car/ moped/ motorcycle**	**Miscellaneous**
Burgenland	5,6%	5,6%	2,8%	80,6%	5,6%
Vienna	4,7%	48,3%	21,4%	25,2%	0,4%
Lower Austria	7,1%	11,6%	3,5%	77,8%	0,0%
Upper Austria	4,2%	15,5%	3,6%	76,8%	0,0%
Styria	6,3%	20,1%	2,1%	70,1%	1,4%
Carinthia	4,6%	16,9%	4,6%	73,8%	0,0%
Tyrol	3,0%	15,4%	7,7%	73,8%	0,0%
Salzburg	20,4%	14,3%	8,2%	57,1%	0,0%
Vorarlberg	10,8%	10,8%	10,8%	67,6%	0,0%

[46] Cf. CMA ME/6466-14 - Asda/Co-op, para. 19

[47] For a more detailed description of the consumer survey, see chapter 8

Table 6: Selected results of the consumer survey (2/2)

Travel time to the supermarket branch most used personally					
Federal state	up to 5 minutes	6-10 minutes	11-20 minutes	More than 20 min	No indication
Burgenland	44,4%	33,3%	13,9%	8,3%	0,0%
Vienna	54,3%	28,2%	12,8%	1,3%	3,4%
Lower Austria	37,9%	38,4%	20,7%	3,0%	0,0%
Upper Austria	48,2%	39,3%	10,7%	1,8%	0,0%
Styria	48,6%	32,6%	16,7%	1,4%	0,7%
Carinthia	58,5%	23,1%	12,3%	6,2%	0,0%
Tyrol	49,2%	38,5%	10,8%	1,5%	0,0%
Salzburg	53,1%	28,6%	18,4%	0,0%	0,0%
Vorarlberg	32,4%	32,4%	27,0%	8,1%	0,0%

Source: Consumer survey.

As can be seen in Table 6, in an urban area such as Vienna only around 25% of consumers use a car or other motorized vehicle for grocery shopping, while in federal states with a larger proportion of rural areas this figure is up to 80%. A further differentiation in urban areas according to the size of the food retail location is therefore no longer conclusive. The argument in rural areas is that daily shopping can also be done at smaller locations, while larger purchases require a longer journey. However, this argument is no longer valid if shopping is on foot or with the help of public transportation, as is the case for around 70% of consumers in Vienna. Consumers are unlikely to a significantly longer journey to make a larger purchase if they are traveling without a car.

Table 6 also shows that in an urban area such as Vienna, over 80% of consumers travel up to 10 minutes to the most frequently used food retail location. If the travel time is increased to 20 minutes, more than 95% are covered in Vienna. In federal states with more rural areas, the travel time tends to shift slightly upwards, with only around 65% of consumers in Vorarlberg covered within a 10-minute radius of the location, around 76% in Lower Austria and around 82% in Salzburg. The consumer survey therefore suggests that people in rural areas are increasingly using their cars for grocery shopping and willing to travel longer distances. Therefore, a catchment area of 10 minutes is used for small locations in rural areas and 20 minutes for large locations and discounters. This is based on the travel times of the CMA, whereby the travel time for large locations in rural areas was increased from 15 to 20 minutes compared to British practice in order to take into account the greater urban sprawl and topographically different conditions.

to be taken into account. In urban areas, as described below, a narrow catchment area of 5 minutes' walk is initially , but this increased to up to 15 minutes in order to be able to map the evolution of the concentration measures. The walking times of the isochrone used in the following analysis can be found in Table 7:

Table 7: Travel times of the isochrone

Urbanization	Full-range retailer with over 1,400 m² of retail space	Full-range supplier up to 1,400 m² sales area	Hard Discounter	Means of transportation
Urban area	5-15 min	5-15 min	5-15 min	Footpath
Rural area	20 min	10 min	20 min	Car

Source: Consumer survey.

6.1.3.2. Calculation of local concentration measures

From the requests for information, BWB is aware of sales and product range data for a large proportion of Austrian food retail locations for the years 2019-2022. Due to the structure of the Austrian food retail sector, which is primarily characterized by the "big four" but also includes many small local suppliers, as well as the corporate structure of the large companies on the market, the number of companies surveyed is very high. For example, there are numerous Spar locations that are operated by retailers on their own account. Requests for information were sent to over 500 Spar retailers alone, in addition to numerous operators Nah&Frisch or Unigroup locations. Due to the large number of companies, there were also gaps in the data. In order to be able to calculate local concentration measures across the board, missing data was extrapolated using a linear regression model[48]. Data is available for 87.4% of the locations surveyed. For the remaining 12.6% of locations, sales figures were extrapolated based on sales area:

$$Umsatz_i = \alpha + \beta \times_i + \varepsilon_i$$

whereby this calculation was carried out separately for each food retail chain. Therefore, if sales data was missing for some locations of chain X, the above-mentioned model was carried out for all locations of chain X.

The market power of the individual food retailers is further illustrated by key figures: Concentration Ratio 3 (CR3), Concentration Ratio 4 (CR4) and the Herfindahl-Hirschman Index (HHI).

[48] A graphical representation of the data confirms the linear relationship between the variables, which have a correlation coefficient of 0.87.

CR3 describes the combined market share of the 3 largest market participants in the local market:

$$CR_3 = s_1 + s_2 + s_3 \qquad wobei\ 0 \leq s_i \leq 100$$

where s_1 represents the market share of the largest market player, s_2 that of the second-largest market player and s_3 that of the third-largest market player. CR4 is supplemented by the market share of the fourth-largest market participants $s_{(4)}$:

$$CR_4 = s_1 + s_2 + s_3 + s_4 \qquad wobei\ 0 \leq s_i \leq 100$$

The HHI is the sum of the squared market shares:

$$HHI = \sum_{i=1}^{N} s_i^2 \qquad wobei\ 0 \leq s_i \leq 100$$

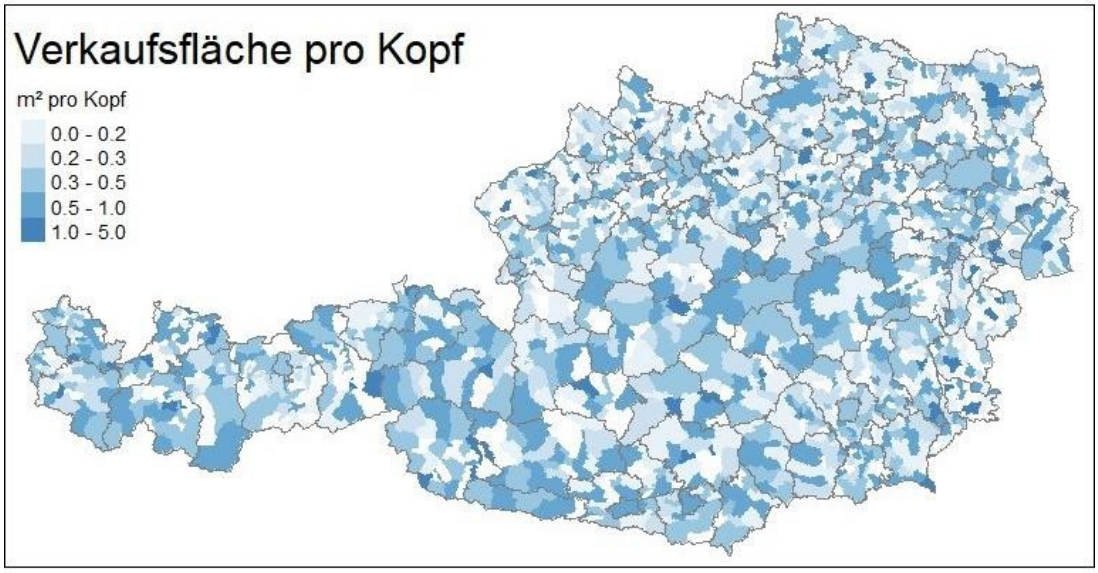
where s_i is the market share by turnover of companies i and N is the number of companies on the market. By definition, the HHI therefore ranges from $\frac{1}{N}$ for N market participants of the same size up to 10,000 with a monopolist:

$$\frac{10.000}{N} \leq HHI \leq 10.000$$

6.1.3.3. Administrative analysis

First, the BWB looks at the retail space available to residents in each municipality (see Figure 14). There are local variations here, with some municipalities having no food retail locations at all (i.e. with a sales area per capita of 0m²), while the maximum number of municipalities has up to 5m² of sales area per capita.

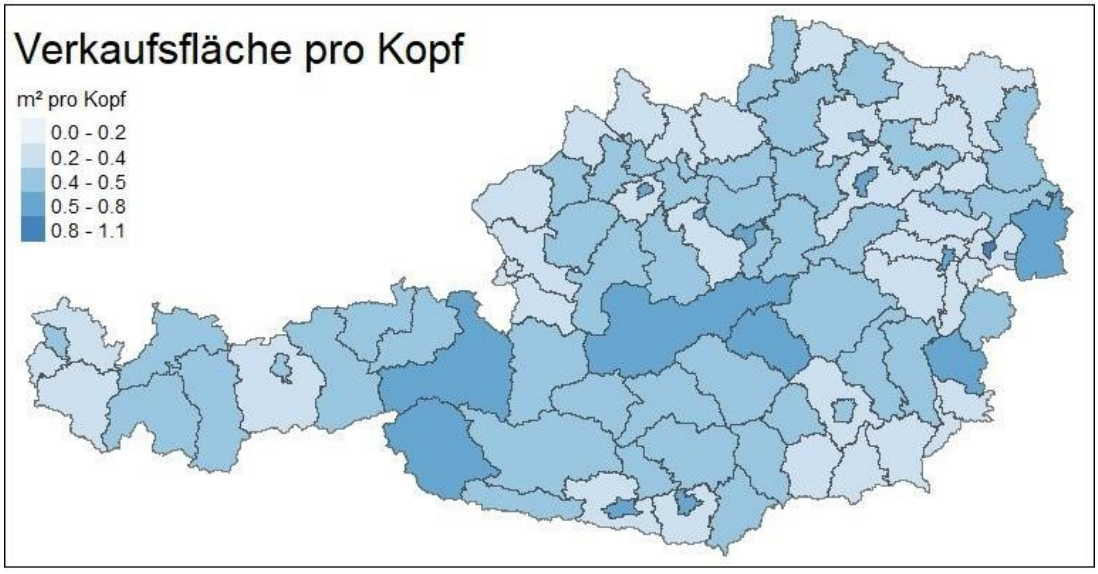
Figure 14: Retail space per capita at municipal level



Source: Request for information, RegioData Research GmbH.

The lack of food retail locations in some municipalities already that municipal boundaries do not reality, as the affected residents will not do without food from food retailers. The next step is to move from the municipality level to the district level. Some districts stand out in Figure 15. Small, urban districts such as Eisenstadt, St. Pölten and Krems an der Donau, with up to 1.1m² of retail space per capita, which is the highest ratio of retail space to inhabitants.

Figure 15: Retail space per capita at district level



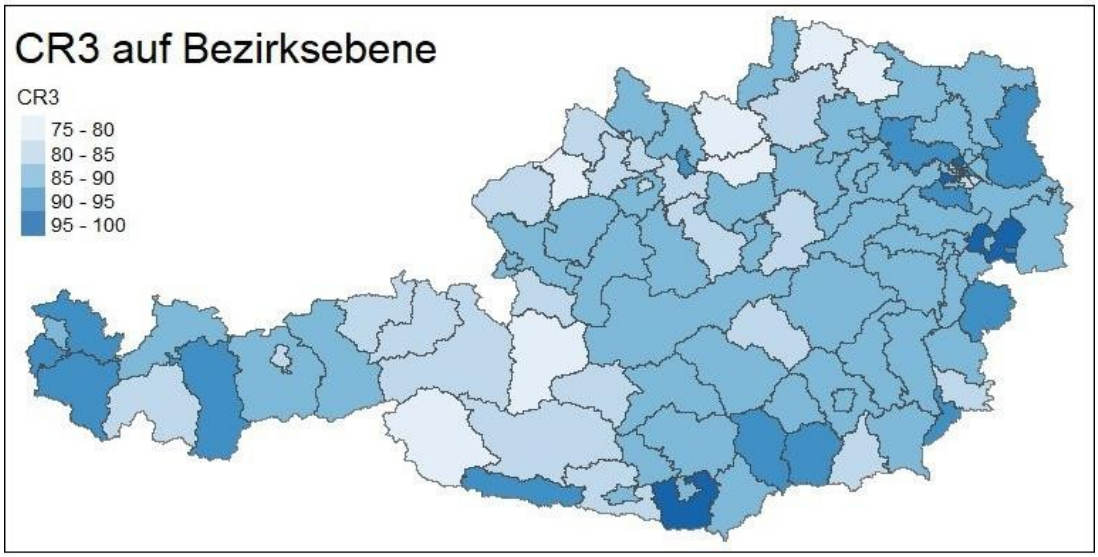
Source: Request for information, RegioData Research GmbH.

However, this does not indicate competitive problems. In principle, a large selection is advantageous for consumers. Regions with a low sales area per store appear more problematic.

Head. Rural districts surrounding urban areas are leading the way here. Eisenstadt-Umgebung and Wels-Land, for example, have the lowest relative retail space per capita at just under 0.3m² each.

In conclusion, this is not for a competitive economic analysis. Figure 16 and Figure 17 show the CR3 and CR4 for all Austrian districts. Here, Rust (city), Kla- genfurt (country) and Eisenstadt (surrounding area) are at the top alongside some Viennese districts. This does not necessarily mean that supply is less guaranteed here than elsewhere. Food retail groups were combined in the calculation. This is because two Spar or Billa locations are not in competition with each other. Consequently, the market share must be calculated for the joint player on the market, in this example the Spar Group or Rewe.

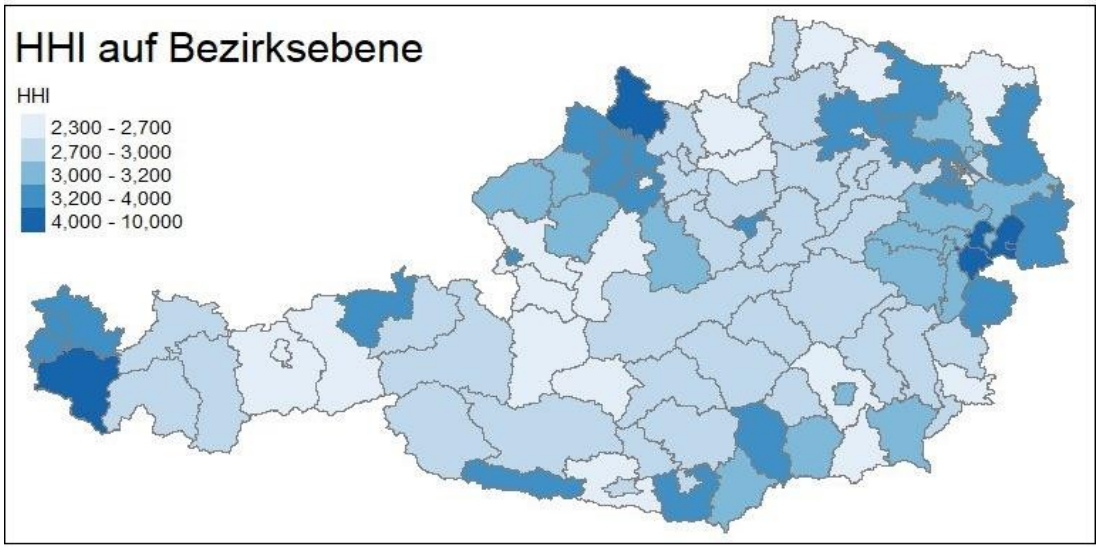
Figure 16: Concentration Ratio 3



Source: Request for information, RegioData Research GmbH.

The CR3 is merely a simple summation of the market shares of the three strongest market players. The HHI provides a better insight into the actual market structure.

Figure 17: Herfindahl-Hirschman index



Source: Request for information, RegioData Research GmbH.

Clear differences are visible here. While the HHI in the median district is 2,984, there are clear outliers at the top. Rust, Vienna city center and Bludenz are the leaders here with values of 4,350 to 10,000. However, this requires classification. In the district of Rust, the HHI is at its maximum of 10,000, but this is a small district in terms of area with only 2 food retail locations, both of which are operated by Rewe, so Rewe has a 100% market share here. However, as will be shown later, this does not conclusively mean that the people of Rust have no alternative. At this point, it should be noted that administrative district boundaries can at most provide an initial point of reference for the geographical market definition. As described above, consumers focus more on distance to a food retail location than on administrative boundaries. This should also be taken into account in the economic evaluation.

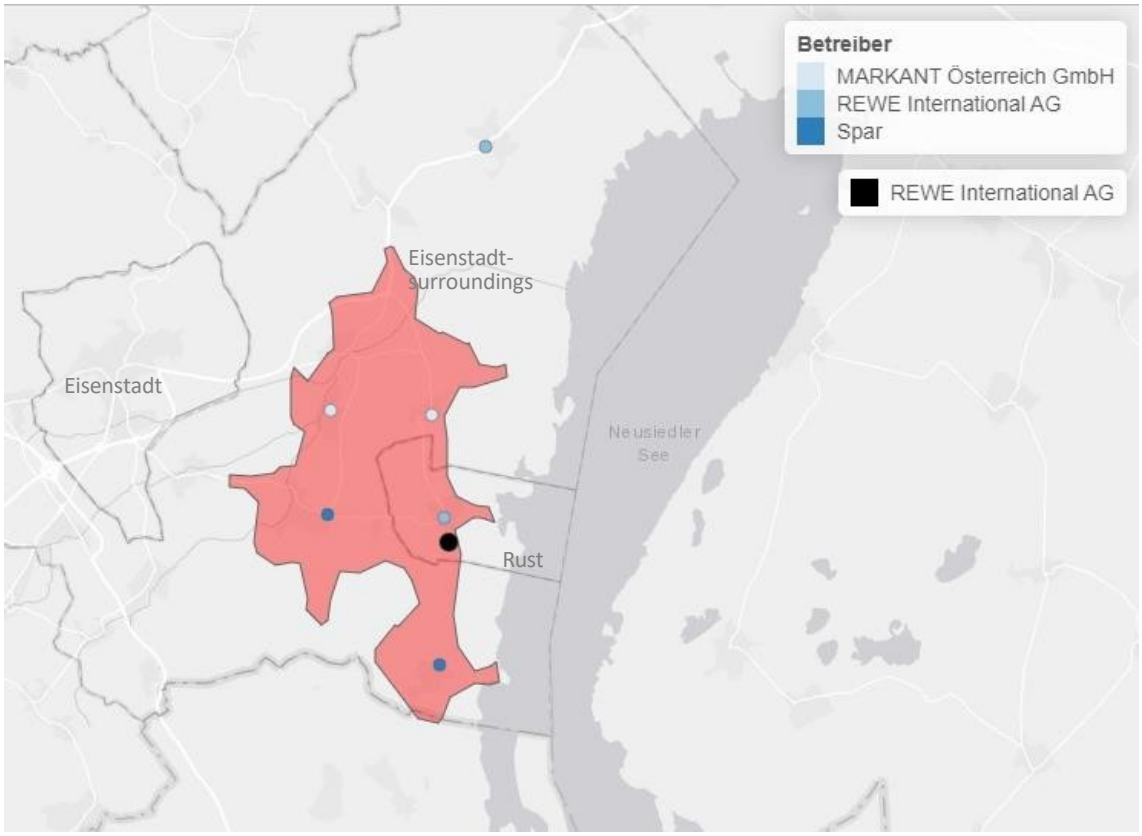
6.1.3.4. Local analysis

As just described, administrative boundaries do not represent an optimal market definition in food retail, but only an approximation. For this reason, BWB uses the catchment areas described above. However, an illustration for the whole of Austria would hardly be able to convey any information because a catchment area is drawn around each of the locations shown in Figure 13.

Some local markets are therefore shown here as examples. If you take Rust, for example, you can see a selected catchment area in Figure 18, in the center of which is the largest food retail location in Rust. The red area includes all points that can be reached from this food retail location within a 10-minute drive. This shows that this food retail location is not only in competition with the other food retail location in Rust, as the administrative analysis suggests. As can be seen in Figure 18, the location is in direct competition with five other food retail locations. From this, it can certainly be deduced that Rust residents are not just choosing between two

locations (operated by the same company), but depending on their exact location, have a choice of up to 6 locations within a 10-minute drive.

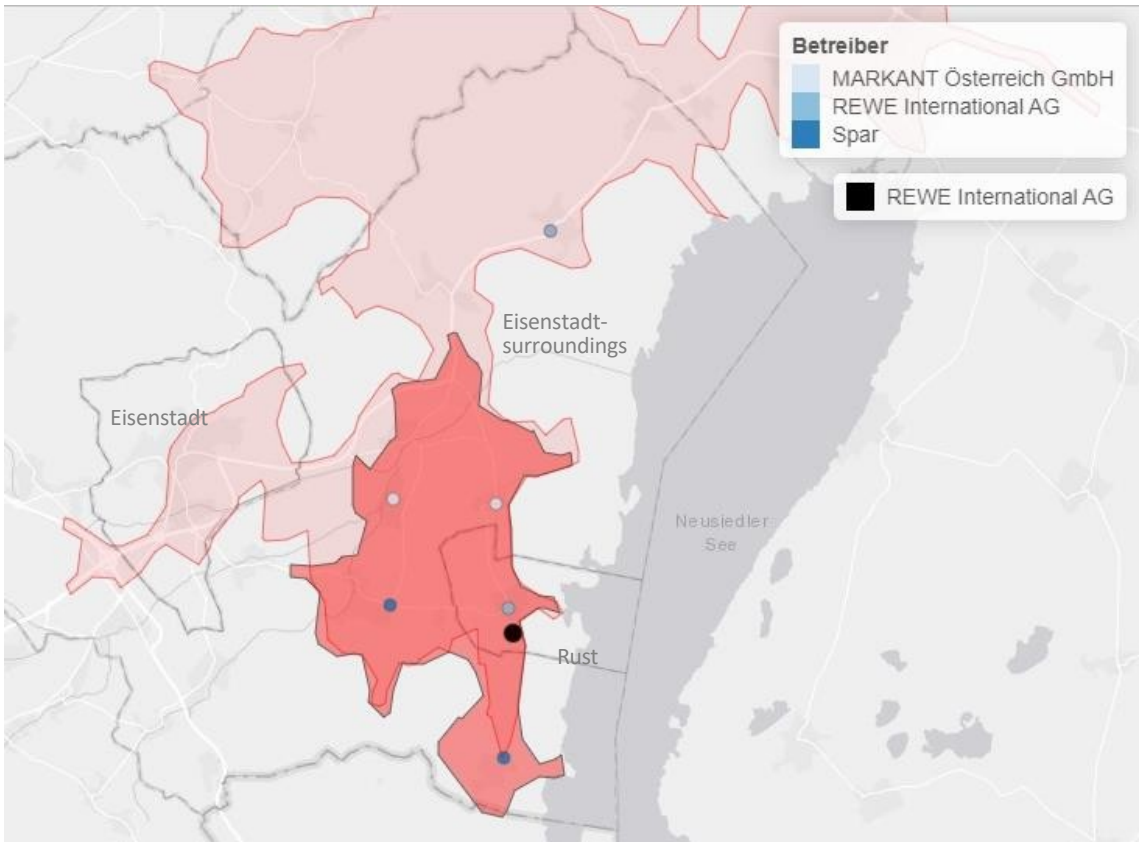
Figure 18: A 10-minute catchment area in Rust



Source: Request for information, RegioData Research GmbH.

If one also takes into account that the northernmost location shown is a hard discounter, i.e. according to the above definition this location a catchment area of 20 minutes' drive, this location is also alternative for most Rust residents, as Figure 19 illustrates. As can be seen from the catchment area for the discounter (outlined in red), is definitely competition between the location in Rust and the discounter. The fact that the catchment areas overlap extensively means that all people living in the overlap effectively have a choice between the two locations, i.e. they are in direct competition here. Due to the size of the overlap, the discounter can certainly be considered part of the local Rust market. For this purpose, the size of the own catchment area was determined for each of the locations shown in Figure 19. The extent to which the catchment areas of each location overlap with the catchment area of the center was then determined. Based on the ratio of the size of the overlap to the total size of the catchment area, the total sales of each location were weighted and allocated to the local market.

Figure 19: 10-minute and 15-minute catchment areas in Rust



Source: Request for information, RegioData Research GmbH.

Ultimately, this also a certain simplification of reality. In order to be able to precisely allocate the sales of the local market, sales and reporting data of all consumers would be required. Since this is not feasible, the firm-centric approach and the allocation of sales explained above a good approximation. Table 8 shows the extent to which the concentration measures differ in this case.

Table 8: Administrative and local market definition in Rust

Concentration measure	Administrative market definition	Local market definition
HHI	10.000	4.507
Number of operators	1	3
Number of locations	2	7

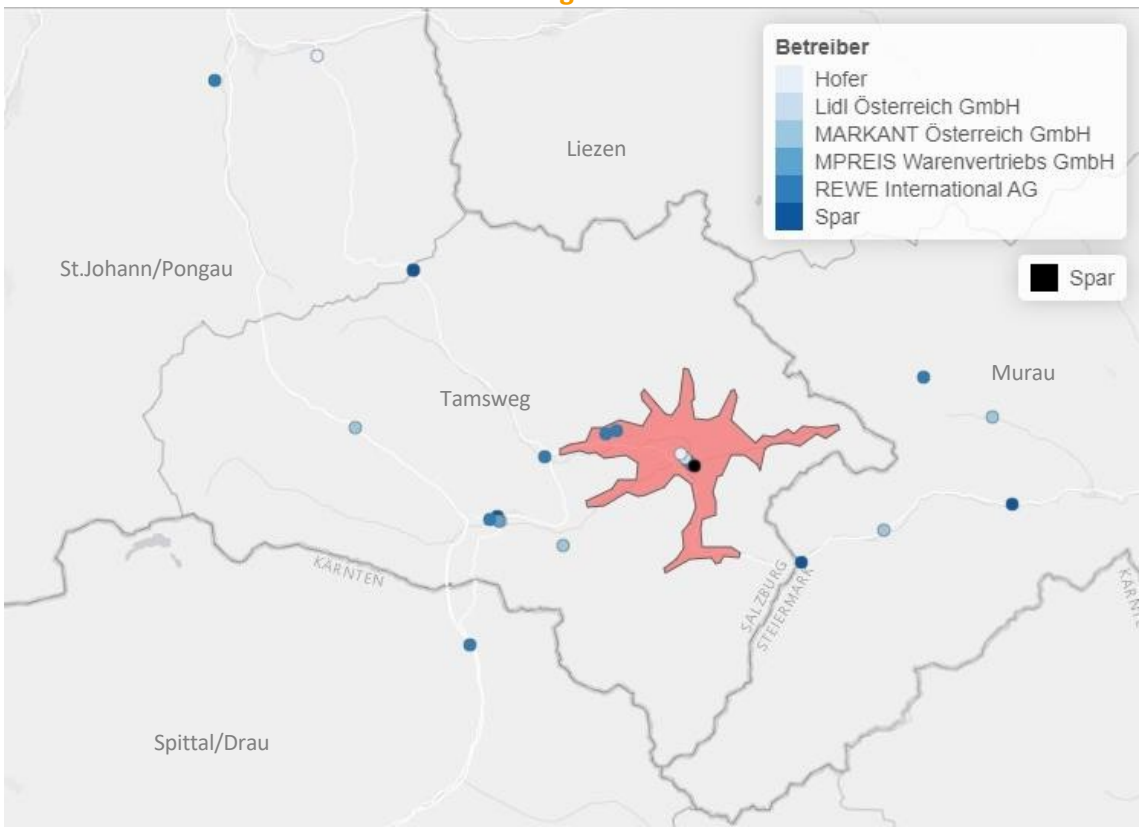
Source: Request for information, RegioData Research GmbH.

To be able to classify these figures: In merger control, according to EU directives, a market is generally considered to be sufficiently fragmented if the HHI is below 1,000. With an HHI between 1,000 and 2,000, the increase in the HHI (delta) resulting from the merger is taken into account. Markets above one

HHI of 2,000, coupled with a delta of over 150, are generally highly concentrated[49]. Accordingly, these values can certainly be classified as a **high concentration.** The difference in the change from an administrative to a local view is remarkable.

A second example is the district of Tamsweg in Salzburg. Compared to Rust, the district of Tamsweg is a more rural district, and the mountainous topography means that the catchment areas are smaller. Figure 20 shows the district of Tamsweg with the associated food retail locations, supplemented by locations from neighboring districts whose catchment areas extend into the district. In order to keep the map clear, as in the previous example, one location is with its catchment area as an example; the other catchment areas were calculated and included in the analysis, but are not shown on the map.

Figure 20: A 10-minute catchment area in Tamsweg



Source: Request for information, RegioData Research GmbH

As before, local concentration ratios are also calculated here. Once again, sales are allocated to the local market based on the overlap of the catchment areas with the catchment area shown in Figure 20. Table 9 provides an overview of this:

[49] EC, Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings

Table 9: Administrative and local concentration measures for Tamsweg

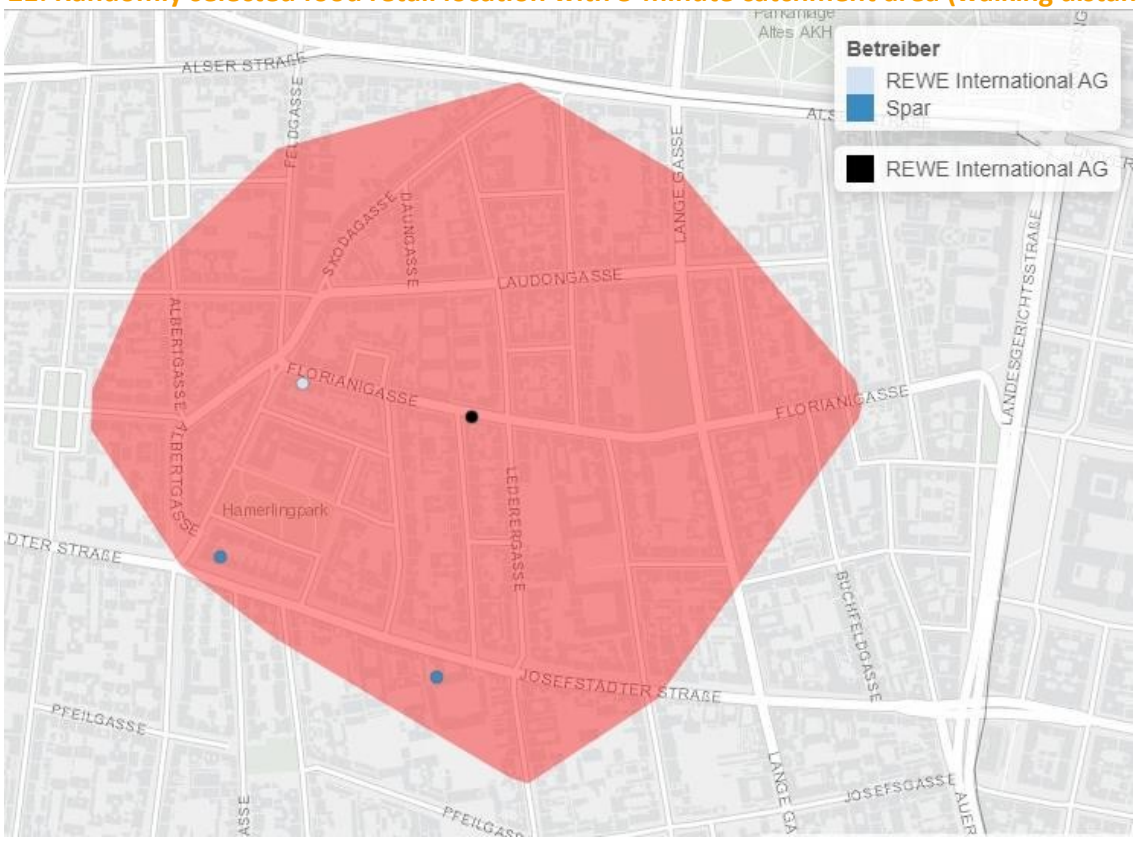
Concentration measure	Administrative market definition	Local market definition
HHI	2.501	3.592
Number of operators	6	4
Number of locations	15	7

Source: Request for information, RegioData Research GmbH.

In fact, the concentration measured by the HHI even increases switching from an administrative to a local market definition. In this case, this may be due to the fact that high-turnover locations are close to the center, which means that a large proportion of the sales of these locations is attributed to the local market, while locations operated by MPreis or Markant only have a small overlap of catchment areas. Even if the HHI here is almost 1,000 index points below the value for Rust, it is still a highly concentrated market.

A third example is given in an urban environment. Vienna-Josefstadt is shown below. Again, a food retail location was randomly selected for which a catchment area was calculated. It was then determined which locations were in direct competition with this location. Figure 21 shows this picture. Since this example is an urban area, taking into account the results of the consumer survey in Table 6, the calculation of the catchment areas is no longer based on a trip by car, but on a walk of a certain time. This is to take into account the different circumstances due to the urbanization of a district.

Figure 21: Randomly selected food retail location with 5-minute catchment area (walking distance)

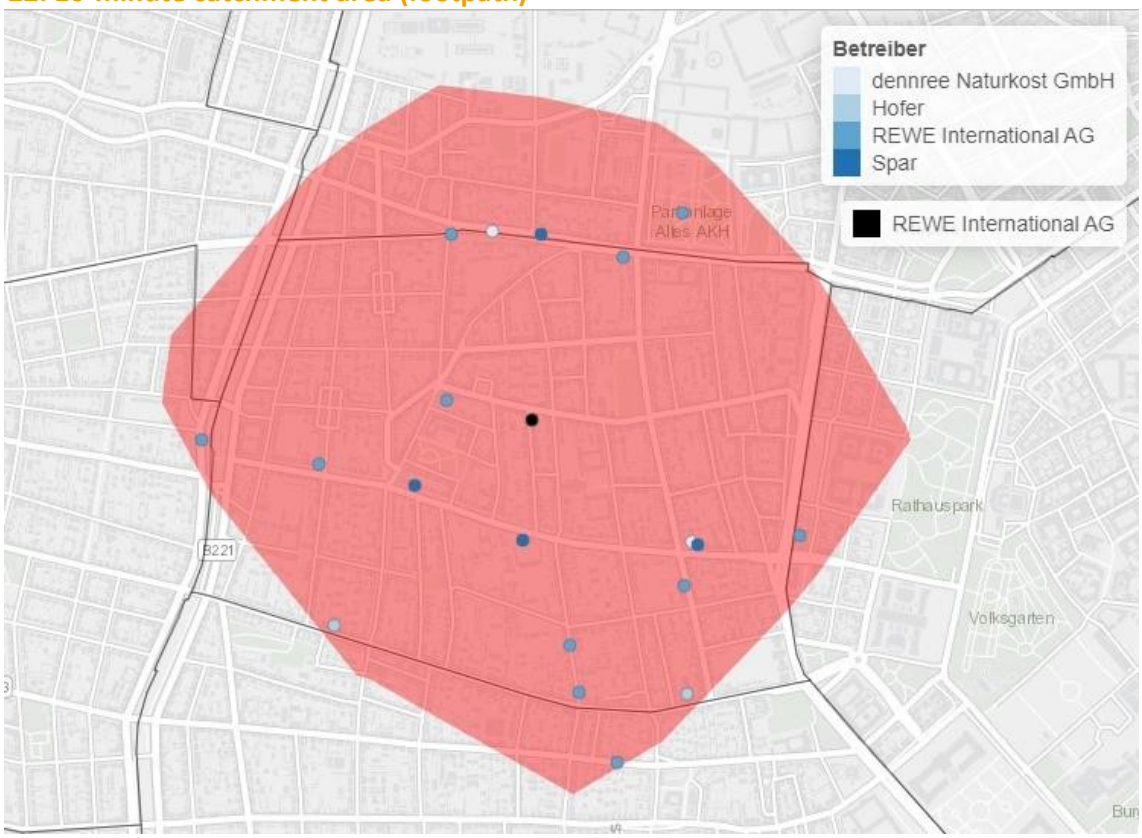


Source: Request for information, RegioData Research GmbH.

Figure 21 shows that three locations in direct competition with this location in Vienna-Josefstadt. To calculate the local market shares, catchment areas are again drawn from the direct competitors and sales are allocated to the local market based on the overlap. If the catchment area of a competitor overlaps 50% with the catchment area of the central location, 50% of the sales of this competitor are allocated to the local market.

If you now calculate the HHI, you arrive at 5,952, a very high value. This can be classified in more detail. The geographical market definition is probably at the narrower end of the spectrum. If we assume that the catchment area is a 10-minute walk instead of a 5-minute walk, the HHI drops to 3,832. This new catchment area with its direct competitors can be seen in Figure 22.

Figure 22: 10-minute catchment area (footpath)



Source: Request for information, RegioData Research GmbH.

Thus, the local concentration measures change very strongly due to small changes in the size of the catchment area. This indicates that the market is quite fragmented and that high customer mobility can significantly intensify competition for individual locations.

Table 10 summarizes the concentration measures.

Table 10: Administrative and local concentration measures for a location in Vienna-Josefstadt

Concentration measure	Administrative market delimitation	Local market boundary 5 min.	Local market boundary 10 min.	Local market boundary 15 min.[50]
HHI	3.399	5.171	3.832	3.592
Number of operators	4	2	4	5
Number of locations	14	4	20	46

Source: Request for information, RegioData Research GmbH.

[50] The 15-minute catchment area was mapped to illustrate the sensitivity of the results.

The fact that the change in the HHI with an extension from 10 to 15-minute isochrones only results in a small change indicates that most providers on the market are well represented within 10-15 minutes. BWB is aware from the consumer survey that an isochrone of 10 minutes in Vienna should represent around 82% and an isochrone of 15 minutes around 95% of consumers in a location. In this respect, the HHI for a local market definition of 15 minutes can be interpreted as the lower limit and that for a market definition of 5 minutes as the upper limit of the real HHI. This depicts a highly concentrated market, which, however, appears much more fragmented than it actually is from a consumer perspective due to the high number of locations and small differences in the branding of individual companies (e.g. Eurospar and Spar Gourmet, Billa and Adeg).

6.1.4. Special case Tyrol

Tyrol is a special case in the Austrian food retail landscape. The reason for this that the market structure here is different to the rest of Austria. With 214 stores, MPreis has the most food retail outlets in Tyrol, followed by Spar with 157, Rewe with 75, Hofer with 46 and Lidl with 15. While Rewe, Spar, Hofer and Lidl generated a good 95% of sales in the rest of the country in 2022, their share in Tyrol is only around 71%. Table 11 provides a more detailed overview of these figures for 2022.

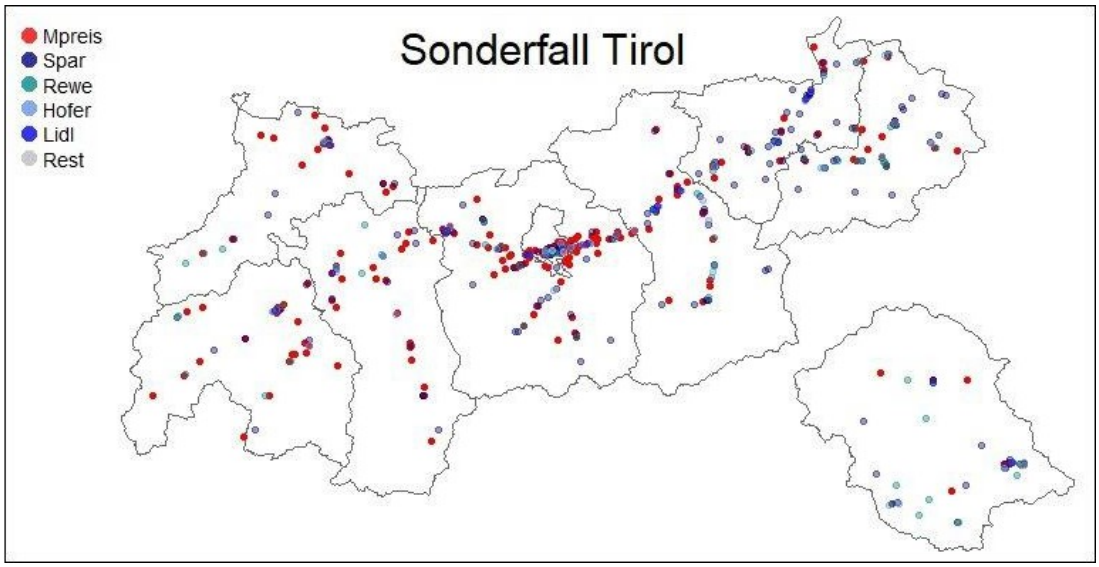
Table 11: Market shares in Tyrol and the rest of Austria

The company	Number of branches in Tyrol	Market share Tyrol	Market share residual Austria
Savings	157	[30-40]%	[30-40]%
Rewe	75	[10-20]%	[30-40]%
Hofer	46	[10-20]%	[10-20]%
Lidl	15	[5-10]%	[5-10]%
MPrice	214	[20-30]%	[0-5]%

Source: Request for information, RegioData Research GmbH.

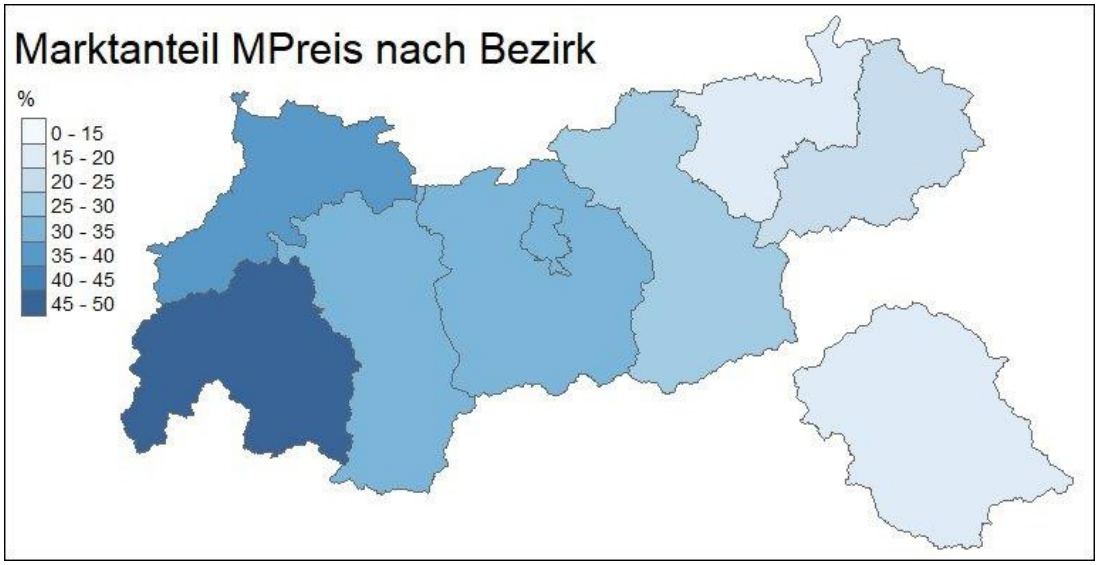
This shows that the "Big Four" in Austrian food retail are becoming the "Big Five" in Tyrol. It should also be noted that the not insignificant share of MPreis in Tyrol is primarily due to the fact that REWE has a correspondingly smaller presence here. The geographical distribution of MPreis stores in Figure 23 also shows that MPreis has an important position throughout the province. The fact that MPreis is not only concentrated in a few districts, but is well distributed throughout the province, suggests that MPreis exerts significant competitive pressure on the four major food retailers, as Figure 23 and Figure 24 confirm.

Figure 23: Food retail locations in Tyrol



Source: RegioData Research GmbH.

Figure 24: Market share of MPreis in Tyrol



Source: Request for information, RegioData Research GmbH.

It also became clear from the BWB's requests for information that MPreis pursues **a particularly regionally differentiated supply policy.** This is probably one of the reasons why it was able to exert competitive pressure as an additional player in the long term.

6.1.5. Own brands

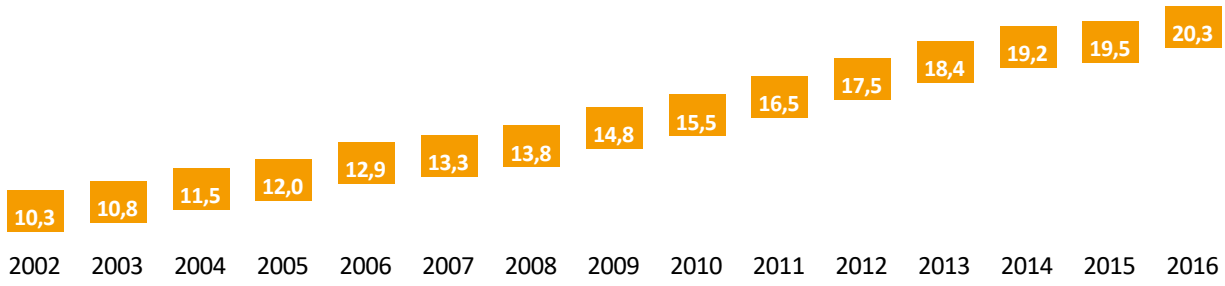
Private labels of food retailers can **both pro-competitive and anti-competitive effects**. On the one hand, there can a greater choice for consumers and thus stronger competition and lower prices without a detrimental effect on quality. the other hand, they strengthen the buying power of retailers vis-à-vis branded goods manufacturers and can thus influence market entry.

barriers to entry at the upstream level. In addition, investments in product improvements or innovations could be restricted if these are simply copied through the introduction of private labels. Compared to consumer or supermarkets, private labels are the core business of discounters such as Hofer or Lidl.

While private labels make the majority of the product range at discounters such as Hofer, Lidl and Penny and have been marketed as a differentiating feature vis-à-vis consumer and supermarkets since they entered the market, private labels have only gradually been introduced by retailer brands such as Billa and Spar in the last 20 to 30 years. According to feedback, low-priced own brands were introduced in supermarkets partly in response to competitive pressure from discounters in order to remain competitive in the entry-level price segment. In addition, own brands were also used in an attempt to become increasingly independent of international brand manufacturers. Proprietary brands also make it possible to exert greater influence on prices, packaging and ingredients.

Based on Nielsen data, the share of private labels in non-discounter stores continuously from the early 2000s to 2016. While private labels accounted for just 10.3 percent of total food sales in 2002, this share doubled by 2016. If Hofer and Lidl were to be added, it would probably be necessary to add at least ten percentage points in all years[51].

Figure 25: Own-brand share of food (in % of sales; excl. Hofer/Lidl)



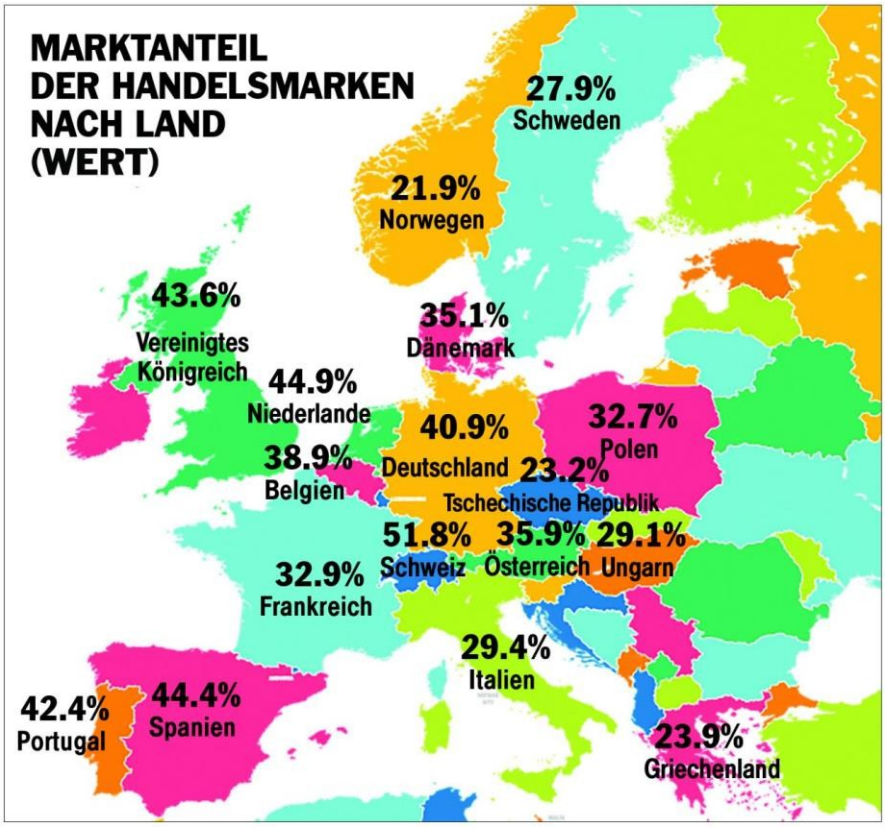
Source: Nielsen/Retail in Austria basic data 2010-2015 and Consumer Austria 2016.

For the International Private Label Yearbook, which is published annually by the Private Label Manufacturers Association (PLMA), Nielsen analyzes the share of private labels in the private label market for 17 European countries.

[51] Around 90 percent of Hofer's total product range (approx. 1,500 items) is made up of private labels, compared to around 80 percent at Lidl (approx. 2,100 items). However, private labels are generally cheaper than branded products, which is why the sales shares of private labels differ from their shares of the total range.

Food retail. In 2022/2023 (including the first half of 2023), the share of private labels in these 17 countries amounted to 38.1%an increase of 1.7 percentage points compared to the previous year (2021/2022). Switzerland is the leader with 51.8%, while Austria is below average at 35.9% (Figure 26). Also based on Nielsen data, the share in Europe (18 countries) was around 30% in 2013 and around 28.5% in Austria. In 2005, the share of private labels was just under 26% in Austria and around 25% in Europe[52].

Figure 26: Sales share of private labels in the food retail sector

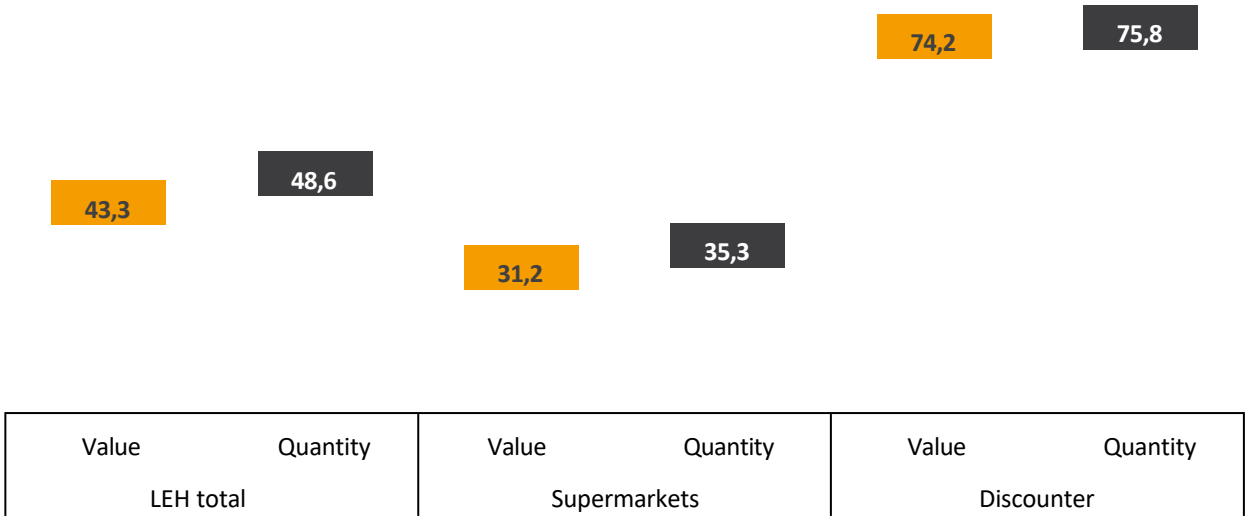


Source: PLMA/Nielsen.

In the BWB basket of goods, the share of own brands in terms of value in the top 4 Austrian food retailers (Billa, Spar, Hofer and Lidl) amounted to around 43% in 2022 (Figure 27). The data basis for the calculation consists of 26 product groups excluding fresh produce, whereby only own brands from Rewe, Spar, Hofer and Lidl were taken into account. As already explained above, there is no breakdown by supplier for the fresh product groups. In terms of volume (kg or L), the share of private labels in 2022 is slightly more than five percentage points higher than the share in terms of value. On the one hand, many private labels are sold in the entry-level price segment and, on the other, the marketing costs for private labels are significantly lower than for branded products.

[52] In Portugal, Spain, the Netherlands, Hungary and Poland in particular, the share of private labels rose considerably between 2005 and 2013. See also Nielsen (2014): *PLMA 2014 - Private Labels Latest Trends*.

Figure 27: Own-brand share of the top 4 in the BWB basket in 2022 (excluding fresh produce)

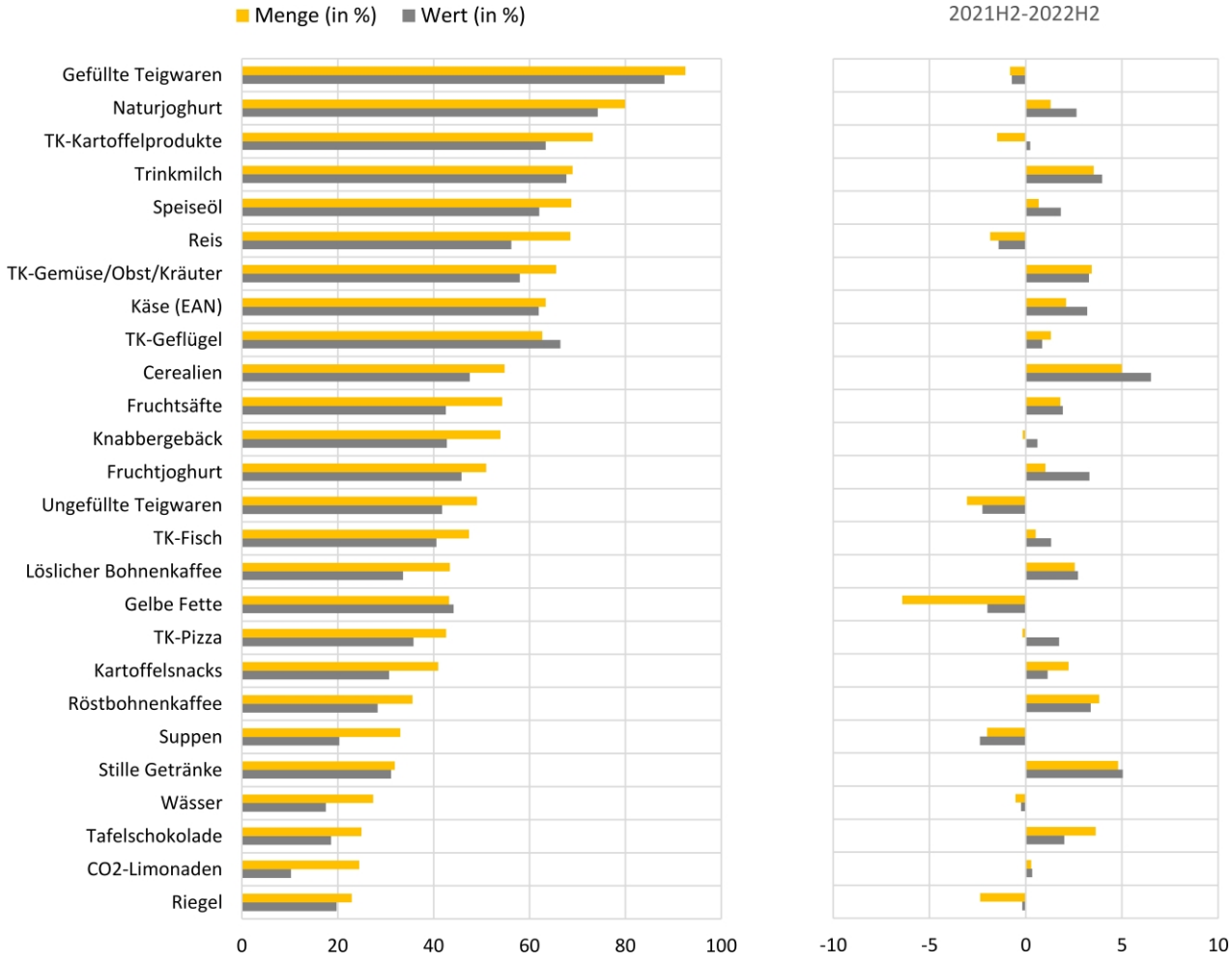


Note: The data basis consists of 26 product groups excluding fresh produce. Sales units or packs were used to calculate the quantitative share. Billa (incl. Billa Plus) and Spar are among the full-range retailers. The discounters include Hofer, Lidl and Penny.
Source: Consumer Panel Services GfK.

A breakdown of the private label share by product group reveals a high degree of heterogeneity, as can be seen in Figure 28. The highest share of private label in terms of volume (in sales units/packs) is for filled pasta, natural yogurt and frozen potato products. The figure for filled pasta is over 90 percent, although it should be emphasized that the definition of this product group only includes non-refrigerated filled pasta. The share of natural yogurt and frozen potato products is around 80 percent. The lowest share of private labels by volume is found in bars, carbonated soft drinks and chocolate bars, each with just over 20 percent. With two exceptions (frozen poultry and yellow fats), the share by volume is higher than the share by value for all other product groups. The reasons for this have already been briefly explained above for the entire BWB basket (importance private labels in the entry-level price segment). Due to the high inflation rates, retailers registered a change in purchasing behavior and a **substitution of branded products with cheaper private labels** in the course of 2022.[53] The chart on the right shows the growth of private labels in terms of volume and value in the 26 product groups from the second half of 2021 to the second half of 2022. In fact, an overhang of positive growth rates in terms of volume and value can be seen. Overall, 16 out of 26 product groups experienced growth in volume for their own brands. Value growth was recorded for private labels in 19 product groups.

[53] See e.g. https://www.diepresse.com/6253121/teuerung-fuehrt-zu-boom-bei-eigenmarken

Figure 28: Own-brand share of the top 4 in the BWB shopping basket in 2022 by product group



Note: The quantity refers to sales units (packs).

Source: Consumer Panel Services GfK.

As described above, it is not possible to separate out the private label share for fresh products in the Consumer Panel Services GfK data obtained by BWB. However, private label shares for the sausage & ham and eggs product groups can be found in the AMA data (RollAMA household panel) provided to BWB.[54] In terms of value, the private label share in both product groups increased by two percentage points from 2021 to 2022. For sausage & ham, the own-brand share in 2022 was 65%, while in the same year, 83% of egg sales in food retail were achieved with own brands.

All in all, the importance of private labels in the BWB shopping basket increased in 2022 compared to the previous year. However, the share of private labels rose less sharply than press releases in 2022 have suggested. In the second half of 2021, the share of own brands by value amounted to 41.8% and this by around two percentage points by the second half of 2022 to

[54] Other product groups are also analyzed in the RollAMA data, but these are not part of GfK's fresh produce panel, which BWB received for analysis. The RollAMA analysis itself is also based on GfK data.

43.7 percent. The reason for this is the higher percentage increase in the prices of own brands than of branded products over this period, as explained in section 6.3.1.2. However, the volume share of private labels hardly changed over this period, from 48.2 percent to 48.4 percent[55].

6.1.6. Barriers to market entry

Several regulatory and infrastructural barriers to market entry were in the feedback, which make it difficult to set up branches in a particular local market:

1. Availability of the property;
2. Zoning and development plan;
3. Requirements of building law;
4. Position of the municipality on the establishment of a branch;
5. Traffic development and transport connections; and
6. Availability of labor.

Above all, the attitude of the municipality towards the planned establishment of a branch often determines whether the necessary zoning and development plans are made possible. The availability of a suitable workforce also depends on demographics and living conditions (e.g. quality of infrastructure, housing and training facilities) in a region.

The costs for overcoming the market entry barriers listed above are supplemented by high investment costs opening a new location. Several million euros must be factored in for this and an amortization period of at least ten years must generally expected.

The market structure in food retail, which has grown in Austria and Europe, also that the necessary size can be described as a further barrier to market entry. There are not only economies of scale, particularly in purchasing (delivery costs, volume discounts, etc.), but also bundling effects in sales (lower transaction costs for customers). If a large number of products are bundled in a small number of stores, this results in contact cost savings for customers. For this reason, larger branches have an advantage over smaller branches, all other things being equal. However, this also increases the investment costs for potential newcomers to the market if they want to compete successfully with the established food retailers in the region.

If a region is already served by a sufficiently large number of competitor stores, this may constitute "oversaturation", which can also be regarded as a barrier to market entry. In one response, a food retailer cited the oversaturation of a regional market as a "KO criterion". In this context, however, it should be emphasized that a high number of super

[55] In the first half of 2022, the share of own brands by volume amounted to 48.8%.

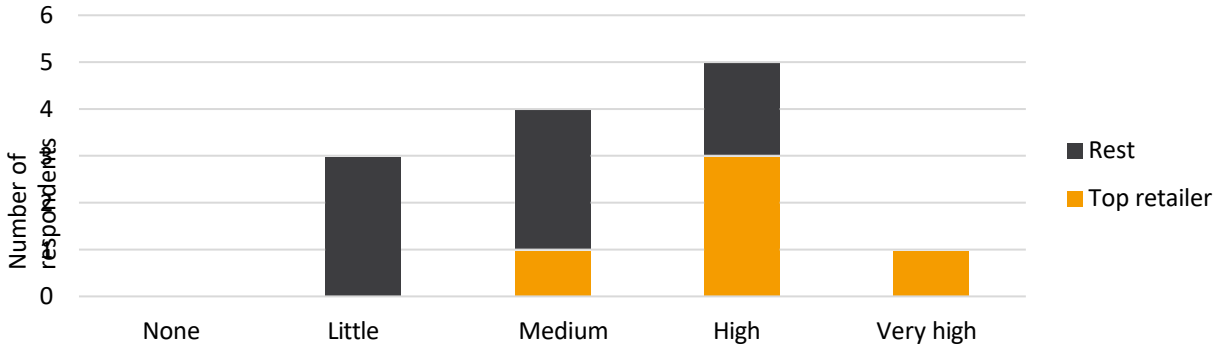
markets does not necessarily represent a high barrier to market entry for discounters, as different priorities are set. In contrast, retail agglomeration in shopping centers or retail parks is also seen as an advantage according to feedback.

6.1.7. Price transparency

As part of a request for information on online grocery retailing, questions were also about price transparency in bricks-and-mortar grocery retailing. In addition, some of the answers to questions about online retailing can be used to draw conclusions about bricks-and-mortar retailing.

At one point in the request for information, 13 respondents who operate an online grocery store were asked for their assessment of **price transparency for consumers in bricks-and-mortar grocery stores**. The leading retailers in the stationary food retail sector ("top retailers": Spar, Rewe, Hofer, MPreis and Unimarkt) systematically rate price transparency for consumers higher than the other respondents.[56] While the top retailers rate price transparency as "high" on average, the other retailers believe that price transparency is only average.

Figure 29: Assessments of price transparency for consumers in stationary food retailing



Notes: The top retailers are represented by Spar, Rewe, Hofer, MPreis and Unimarkt. Rest" includes Mjam, Alfies, Gurkerl, Hausfreund, Achleitner Biohof, Biohof Fink, Markta and ADAMAH Biohof.

Source: Request for information.

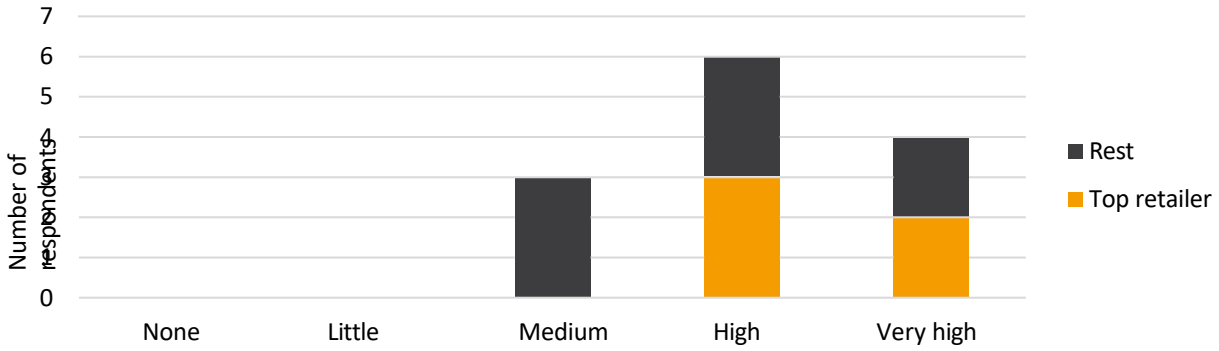
In the same request for information, the top retailers each confirmed that **prices in their online stores match those in their brick-and-mortar stores**. Among other things, it was stated that the prices "*are maintained centrally for the online store and the bricks-and-mortar stores*". Another top retailer "*maps the prices of the stores*" and another wants to "*offer all customers the same added value*" through price equality. However, four out of five top retailers confirm that **different discount promotions** are available **in brick-and-mortar stores than in online stores**.[57] In particular, product group and volume discount promotions are hardly available in online stores. Overall, the online

[56] Among the remaining food retailers there are also two companies with stationary sales (Achleitner Biohof and ADAMAH Biohof), which, however, cannot be described as full-range retailers.

[57] The full-range retailer, which denied this, partly qualified this in the same request for information and in a later one.

As expected, online retailers perceive higher price transparency for consumers, as Figure 30 shows. The top retailers now rate this between "High" and "Very high", while the remaining retailers perceive a high level of price transparency for consumers in online LEH.

Figure 30: Assessments of price transparency for consumers in online LEH



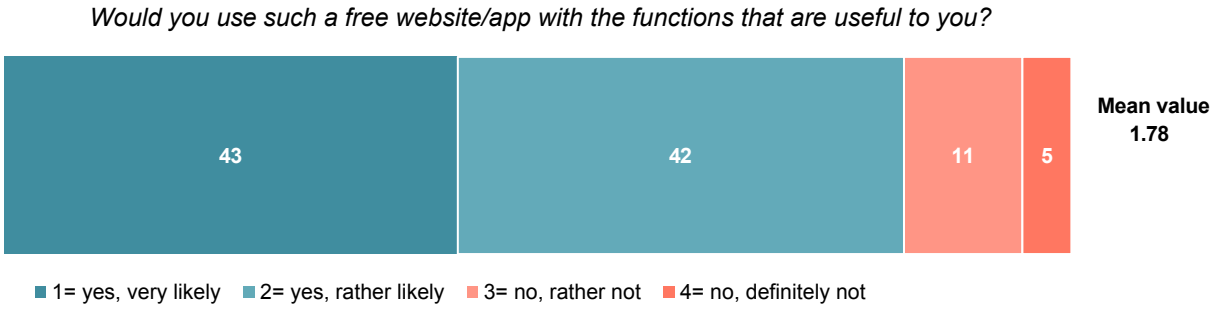
Notes: The top retailers are represented by Spar, Rewe, Hofer, MPreis and Unimarkt. Rest" includes Mjam, Alfies, Gurkerl, Hausfreund, Achleitner Biohof, Biohof Fink, Markta and ADAMAH Biohof.

Source: Request for information.

To out about price levels and changes, there is the relatively expensive option of visiting local stores. A cheaper alternative is to **search the retailers' online stores**. In addition, several price transparency and **price comparison platforms** have been available for a number of years. These include heisse-preise.io, preismonitor.at, preisrunter.at, supermarkt.at, teuerungsportal.at, aktionsfinder.at and wogibtswas.at, to name just a few of those that have been addressed by BWB in a voluntary request for information. The topic of price comparison platforms was also addressed in a representative consumer survey (n=1,000) commissioned by BWB from TQS Research & Consulting KG (see section 9.1). In this survey, 85% (Figure 31) stated that they would rather or very likely use a free price comparison platform if it fulfilled certain useful functions (e.g. price comparison with other grocery retailers for individual products or individual shopping baskets). Of these consumers (n=843), 25 percent stated that they would also be willing to pay for access to a price comparison platform (Figure 32). This result shows that a not insignificant proportion of consumers perceive **a considerable lack of information**, as they would even be willing to pay for more information[58].

[58] Applied to the population as a whole, 21.1 percent of respondents would be willing to pay for a price comparison platform.

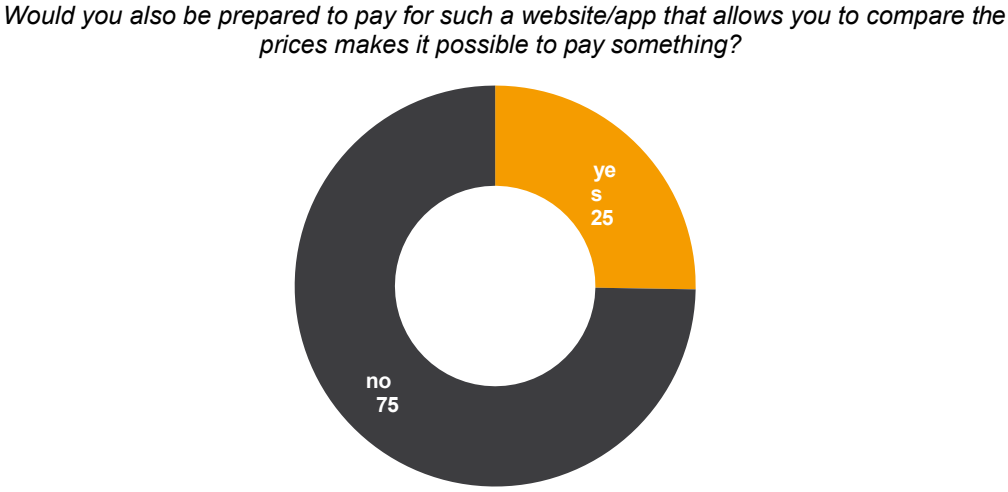
Figure 31: Willingness to use a free price comparison platform (website/app)



Note: The following question was asked beforehand: "Suppose there was a free price comparison platform (app/website) for food with your desired function, i.e. a kind of "cheapskate for food". Which of the following functions would be useful to you?" A choice of six functions was given.

Source: TQS Research & Consulting KG.

Figure 32: Willingness to pay for a price comparison platform



Source: TQS Research & Consulting KG.

In summary, it can be said that grocery retailers assume medium to high price transparency for customers in stationary food retail. On the other hand, there is a significant proportion of consumers who would pay for more price transparency, which indicates a considerable lack of information. In any case, the majority of respondents find price comparison platforms useful. Several price comparison platforms with varying scope and functionality are already available. For this reason, among others, it seems sufficiently justifiable to classify price transparency in stationary food retail as "high" from the perspective of many consumers. Due to the heterogeneity in the price transparency perceived by the respondents, there nevertheless appears to be room for improvement that could improve competition.

could be further intensified. For this reason, the FCA also proposed a number of recommendations in a **focus paper on price comparison platforms**(59).

6.2. Market behavior

Strategic variables in competition are determined and changed in particular with the help of price, quantity, procurement, product range and location policy instruments, with advertising and promotional policy also playing a key role in competition. The individual adaptation and planning of these strategic variables drives the implementation and realization of individual company goals. Market behavior and the corresponding options in the choice and dosage of instruments heavily on the market structure (see point 6.1), but are also influenced by the actual market results achieved (see point 6.3). This chapter discusses the most important aspects of market behavior that were discovered in the course of research and requests for information and considered to be essential for competition in the food retail sector. In addition, individual market behavior, which is of particular importance under antitrust law, is also discussed. This includes notifiable mergers, takeovers of competitors or producers at upstream or downstream stages of the value chain and decisions by the antitrust court due to other anti-competitive behavior.

6.2.1. Corporate goals

In economic theory, it is assumed that companies seek to maximize their profits. This assumption should not be deviated from in the case of food retailing, although it can certainly be concluded from the feedback that profit targets targeted as satisfaction values.[60] Internal margin or budget targets were often mentioned, on the basis of which calculations are made, trade margins are set and the availability and frequency of discounts are determined.

In order to achieve the internal margin targets, the sales prices are set as part of a so-called mixed calculation. In a mixed, compensation or offsetting calculation, part of the product range is offered at low prices ("compensation taker") and another part at higher prices ("compensation giver"). **Very price-elastic items[61] are usually sold at low prices.**

[59] See the press release dated September 15, 2023: https://www.bwb.gv.at/news/detail/branchenuntersuchung-lebensmittel-fokuspapier-preisvergleichsplattformen

[60] At this point, the question arises as to how and to what extent a satisfaction value deviates from a profit maximum. In contrast to profit maximization, satisfaction merely aims at a level of aspiration, i.e. a satisfying goal.

[61] Price elasticity of demand describes how strongly the quantity demanded reacts to price changes. In the case of price-elastic goods, demand reacts disproportionately strongly to price changes. This means that price increases for price-elastic goods lead to a greater decrease in the quantity demanded than is case for price-inelastic goods.

These primarily include key items, i.e. everyday necessities. The low prices on these products are an attempt to acquire customers and increase their willingness to buy. On the other hand, higher contribution margins are achieved with compensators in order to disproportionately compensate for the inadequate coverage of fixed costs by compensators.[62] The consideration of a single article is therefore insufficient to draw conclusions about the pricing strategy of a retail company, as internal margin targets and necessary contribution margins want to be achieved with the average or a "mix" of compensators and compensators.

6.2.2. Market observations

The indispensability of market observations in the food trade is succinctly summarized by one retailer as follows:

> *"In a highly competitive market environment, ongoing market observations are essential for a food retailer. Price comparisons (Kurant and promotion) play an important role here.*"

The feedback is clear in this respect and this statement is equally valid for the top 5 food retailers (Rewe, Spar, Hofer, Lidl and MPreis). Competitors are generally surveyed several times a week. The instruments used for this include not only on-site market observation, but also the observation of online stores and flyers. The large product range does not allow all items to be monitored regularly and at short intervals, which is why the companies focus on items with high customer and sales significance. These include the strongest articles within the product groups and entry-level price products, which are of great competitive importance for discounters in particular, but also for supermarkets. The closest competitors are monitored most closely. Supermarkets (e.g. Billa incl. Billa Plus and Spar) observe each other more intensively than supermarkets and discounters (e.g. Hofer and Lidl) observe each other. The same applies to discounters. However, as supermarkets also offer entry-level price items and are therefore in intense competition with discounters, there is also market observation between supermarkets and discounters.

Based on price observations, the main aim is to follow the "*price leaders"* when it comes to sales prices for everyday consumer goods. These items are offered in sufficiently comparable forms by all food retailers and are the focus of both public and marketing attention due to their importance for consumers. They represent the most important part of the product range and are often referred to as "*corner items*". According to feedback, the sales prices of corner items, but also in some cases of promotional items, are often used by consumers as reference prices for comparisons between the retailers available in the region. These prices are therefore decisive in determining which retailer the consumer will buy from. For this reason, grocery retailers are required to set prices for these items in compliance with internal

[62] See Barth, Hartmann and Schröder (2015): Betriebswirtschaftlehre des Handesl, 7th edition. S. 198

systematic price matching is carried out for budget targets. The reason for this systematic price matching can be summarized as follows, based on a statement from a food retailer interviewed:
"If the consumer [...] has chosen between the retailers in question, he usually covers all his needs at this retailer, i.e. beyond the promotional and corner articles".

Price leaders" can be defined as those competitors that are comparable due to the nature of their product range and can therefore be considered the closest competitors. This primarily results in **price matching for corner and promotional items** between supermarket operators on the one hand and discount store operators on the other. However, there is no clear distinction between supermarkets and discounters. Supermarkets are also partly oriented towards the sales prices of discounters and discounters also react to the promotional prices of supermarkets.

The most important monitoring variables are above all curant and promotional prices, but grammage, packaging type, quality and origin are also recorded if there have been any conspicuous changes. In addition to market observation by their own employees, many companies also make of external service providers who observe the market and, above all, their competitors and transmit data to the client at regular intervals. The following service providers and market research companies were named as sources of information, usually on a weekly or monthly basis:

1. Nielsen Ltd;
2. Consumer Panel Services GfK;
3. oraya GmbH;
4. GKL Marketing-Marktforschung GmbH & Co KG;
5. FOCUS Marketing Research Ges.m.b.H.; and
6. Pecher Consulting GmbH.

The data from market observations by our own employees and external service providers allow us to react quickly to price adjustments or competitor promotions. Although internal budget targets a restriction, meaning that not every price adjustment or action by competitors is reacted to, the company tries not to be perceived as more expensive than its closest competitor for the most important everyday goods (key items). Market observations often serve as the basis for systematic price matching for key items against the closest competitor. For example, one food retailer points out that for common items (e.g. butter) it "*fundamentally incompatible* with the corporate strategy *to have a lower price than the* ". Another emphasizes that customers primarily compare the prices of corner items and promotional items and ultimately decide which store to visit for their daily shopping on the basis of this comparison. Once they have made their decision, they not only buy these promotional and corner articles, but usually cover all their needs in the same store, i.e. the promotional and corner articles. For this reason, the most important everyday items are

The company keeps a particularly close eye on competitor demand, e.g. fresh produce, and reacts quickly to price adjustments and promotions.

Intensive market observations are usually a strong indication of intense competition. Companies in markets with weak competition usually have no great incentive to incur high costs or tie up internal resources in order to carry out market observations, as a change in competitive parameters by competitors does not have too great an impact on their own demand. In markets with intense competition, however, extensive market observations are essential, as a hesitant reaction to the behavior of competitors can be accompanied by significant losses in sales. **Although food retailing in Austria is dominated by four to five food retailers (operators), both nationally and locally, the feedback from market observations suggests that competition is nevertheless intense.**

6.2.3. Price and promotion policy

Largely national pricing policy. In terms of pricing policy, food retailers are largely free to decide how, when and where price adjustments are made. According to feedback, however, grocery retailers largely their sales prices nationally, although independent merchants from Spar and Billa and, in some cases, individual locations of other retailers can also influence prices independently.[63] Regionally listed items are a significant exception to the national pricing policy. Apart from these exceptions, the same curant prices, i.e. non-promoted normal prices, are generally set for the same products everywhere in Austria. This national pricing policy applies not only to brick-and-mortar but also to online grocery stores, which is why there are no price differences for the same product, regardless of whether it purchased online or in-store. Logistics costs, which can vary significantly due to the topography of Austria, are priced in nationally.

However, apart from the largely national strategy for currant prices, regional campaigns are also possible. The flyers sometimes differ by region with different emphases in the promotion of certain items. For example, some items are often more important in certain regions. This fact is ultimately in the leaflets and the campaign policy in these regions, which is why campaign prices can vary from region to region. is therefore regional differentiation in advertising measures and promotional policies. According to feedback, independent retailers at Rewe and Spar are free to set their own prices and promotions. Regional differences in promotional prices are particularly common for beer and dairy products. Finally, in connection with promotional policies, it must be emphasized that a number of promotions are not available in online stores that can be found or redeemed in stores (e.g. quantity discounts, 25% stickers, etc.). Occasionally, however, there are also online-only promotions.

[63] Location-specific surpluses or reaching the best-before date can be such occasions.

According to feedback, four important factors influencing sales prices can identified:

1. Purchase prices;
2. Competition or sales prices of similar products at other food retailers;
3. price thresholds; and
4. Rotation.

Purchase prices are determined in negotiations with manufacturers, which generally take place once a year in economically and geopolitically quiet times, usually either at the beginning or end of the year. In these negotiations, purchase prices are agreed in advance for a specific term. However, if crop yields, raw material and packaging prices fluctuate greatly or if there are supply chain difficulties, such as in 2022 in particular, purchase price negotiations or price adjustments may take place several times a year. The purchase prices of dairy products and, in particular, fruit and vegetables are adjusted and negotiated frequently or continuously throughout the year. Depending on market conditions, fruit and vegetable purchasing prices may well be adjusted on a weekly basis. In the event of a poor harvest, logistics problems, staff shortages, high raw material or energy costs, the initiative for purchase price negotiations usually comes from the producer. In the case of harvest, cost or capacity developments that are advantageous for the manufacturer, however, the food retailers initiate the negotiations in order to bring about a reduction in purchase prices. New wage agreements can also be a reason to demand price adjustments.

For **suppliers of own brands**, purchase price negotiations are regularly based on invitations to tender. In the course of these tenders, which usually take place once a year, interested suppliers submit their offers, which are then the subject of intensive negotiations. The contract is ultimately awarded to the best bidder. In this context, however, it should be emphasized that retailers have a stronger influence on the relevant competitive parameters (prices, quality, packaging, content, advertising, etc.) for private labels than for branded products. Nevertheless, price adjustments are also made with private label manufacturers during the year if economic developments make it necessary for the manufacturer's or retailer's calculation of optimality. However, as contracts are generally concluded with private labels, both parties must agree to the proposal to renegotiate purchase prices.

Competition is rated as very high by all food retailers surveyed, which is why one retailer summarizes that "*the sales price is [ultimately] formed in competition with other food retailers*". The intensity of competition can certainly be linked to the frequency of promotions. For example, there are individual item discounts, volume discounts and product group discounts over different durations as well as permanent low prices to attract customers. Another aspect for assessing the intensity of competition is price observations. These are carried out regularly by all retailers surveyed in order to be able to react optimally to price changes among relevant competitors and, if necessary, to carry out price matching. Promotions and

Discounts are often based on observations from flyers. According to feedback, the findings from these price observations are decisive for sales pricing, which is why one retailer concludes by emphasizing that "*the sales price no direct mathematical correlation with the purchase price development*". Price observations focus on the closest or closest competitors in the respective product range. Particularly in the case of "corner articles" or articles for daily use with a high customer reach, the aim is to avoid being perceived as more expensive than the closest competitor. See the comments on market observations in section 6.2.2.

The expected effects on the quantity demanded are essential for changes in sales prices. **(Psychological) price thresholds** play an important role here. A price threshold is a value or a price point at which the quantity demanded by the customer changes abruptly. These psychological price thresholds are often the reason why many retail prices end in the number nine or 99. For example, if the price of butter (250g) rises from EUR 1.99 to EUR 2.09, the quantity demanded will fall much more sharply than if the price were to rise from EUR 1.89 to EUR 1.99. In addition, a further increase from EUR 2.09 to EUR 2.19 would only have a minor impact on the quantity demanded, as the psychological two-euro threshold has already been exceeded.

One food retailer emphasizes the **rotation** of fresh products as another important factor influencing pricing. If sales of a fresh product are unfavorable, contrary to expectations, price reductions are made in order to reduce spoilage. The attentive customer will often find this practice in the form of promotions on items that will reach their expiration date within a few days.

Responsibility for setting and adjusting prices lies with the product range and category managers. In the case of major price adjustments, the purchasing management or the management board may also consulted. In some cases, there are certain days of the week on which price adjustments are as standard.[64] As a rule, most price adjustments take place around the middle of each working week (Tuesday, Wednesday and Thursday).[65] However, there are also extraordinary price adjustments. For example, fruit and vegetables are regularly subject to short-term purchase and, as a result, sales price adjustments due to perishability or external factors such as harvest success.

6.2.4. Product and range policy

Product range. While pricing and promotion policies are largely regulated nationally, the feedback suggests a more differentiated product and range policy that takes into account customers' regional preferences. A regional focus is particularly evident for dairy products, but also for eggs and beer.

[64] See also the pricing and promotion policy in online grocery retail, which is explained in section 6.5.6.

[65] See also point 6.5.6.

instead. Urban stores generally offer a broader range of food products with a higher proportion of convenience items. In comparison, non-food 1 items are found to a much greater extent in rural stores.[66] At special locations such as train stations, the product range is tailored to the needs of commuters and travelers. The feedback allows the cautious conclusion that supermarkets tend to adapt their product range more to regional needs than discount stores. The latter often offer a largely standardized product range.

In smaller stores, the focus on the most important everyday products. In larger stores, both the breadth and depth of the product range increases. As a rule, the proportion of food items decreases with store size and the proportion of non-food 1 items in particular increases. Non-food 2 articles are primarily found in hypermarkets.

Key article. In the course of a request for information, the Big Four Austrian food retailers were asked to submit a list of must-have products to the BWB. Must-have products are largely perceived by retailers as everyday products. **These products, also known as "corner items", are particularly price-sensitive according to the assessment of the product range management.** In addition, corner products are also regionally differentiated, especially in the case of dairy products. According to feedback from a grocery retailer, the price sensitivity of corner products is due to the fact that customers base their decision on which store to visit primarily on price comparisons for corner products. For this reason, these corner products are stocked by all grocery retailers in order to be competitive in the respective region.

Own brands. Own brands are items that are legally owned by the respective food retailer or for which the food retailer the brand owner. Examples include the "Clever" line from REWE, "S-Budget" from Spar, "Zurück zum Ursprung" from Hofer and "Alesto" from Lidl. The feedback provides some reasons for the introduction of own brands, which would be attempted,

1. stand out from other food retailers;
2. to less dependent on major brand manufacturers; and/or
3. to be freer in the design of the articles (in terms of quality, content, packaging design).

As own brands are only available for purchase in the brand owner's stores, the company's image is linked to the respective own brands on offer, which in turn results in differentiation from competitors. The company becomes more "visible" to the customer, resulting in stronger customer loyalty. In relation to branded goods manufacturers, private labels act as an instrument for increasing negotiating power, as they create alternatives to the products of branded goods manufacturers. This independence is also reflected in the control of

[66] Non-food 1 includes detergents, cleaning agents, hygiene products, personal care products and pet supplies.

This is also reflected in the way food retailers design their own brands. While they are otherwise bound to the specifications of the brand manufacturers, food retailers can pursue their own goals with private labels and address other customer wishes (price entry, organic, regional, etc.).

In addition to the reasons mentioned above, the market entry of discounters in Austria also played a decisive role. Low-priced own brands were introduced partly in response to the intensified competition from discounters, as entry-level price products were not or could not be covered by branded goods manufacturers. However, private labels now cover the entire price spectrum.

In summary, the increasing availability of private labels in recent decades suggests that competition in the food trade is intense. On the one hand, functioning competition should create incentives to "flee" from low profits by differentiating from competitors. A wider range of products ultimately benefits customers. On the other hand, private labels strengthen the buying power of food retailers on the procurement markets. This can be advantageous for customers if the purchasing prices, which are depressed by the buying power, in low sales prices. On the upstream markets, however, this buyer power can also create barriers to market entry, which could contribute to higher concentration on these markets. For example, it is not unreasonable to assume that innovations and market entry in upstream markets are dampened by the buying power of retailers. The reason for this could be that innovation and market entry costs are very difficult offset, as high prices can hardly be enforced against retailers. On the other hand, it is not far-fetched to conclude that private labels also create incentives for brand manufacturers to stand out more strongly through improvements or innovations.

6.2.5. Procurement policy

As a rule, annual meetings are held with branded goods manufacturers negotiate the terms of supply relationships and, above all, purchase prices. Annual meetings are not usually held with regional and small suppliers. Negotiations with suppliers of own brands are regularly based on invitations to tender.

Purchase price adjustments during the year are generally possible, whereby lead times (usually three months) must be observed if one contractual partner approaches the other with claims. There are exceptions in the case of fixed purchase price agreements in contracts, which are often used in connection with private labels, are legally binding and only be changed by agreement of both contracting parties and with appropriate economic justification.

Purchase price negotiations for fresh produce, in particular fruit and vegetables, take regularly on a weekly basis and in some cases on an ongoing basis. For dairy and meat products, purchase price negotiations place more frequently during the year, even in economically quieter times. This is due to seasonal fluctuations in raw materials.

The basis of the delivery conditions is the base price, which usually corresponds to the supplier's respective list price. In addition, the base condition indicates which discounts or bonuses are deducted from the base price in favor of the food retailer. This base condition often relates to the total quantity purchased and is intended to reflect the added value that the suppliers derive from the business relationship with the food retailers. In addition, marketing conditions are applied, which are paid by the supplier for certain marketing activities. These include the support of price promotions, secondary placements at the checkout or flyer advertising. The basic and marketing conditions are the fixed components in the supply contracts, while the base price is the variable component.

Negotiations are also regularly held with international branded goods manufacturers on **purchasing cooperations**. REWE is a member of two purchasing cooperations: Coopernic and Eurelec. Although the Schwarz Group, to which Lidl and Kaufland belong, is not formally a purchasing cooperation, it can be regarded as such in terms of its effect. Another purchasing cooperation is the MARKANT Group, which covers the Nah&Frisch group with its wholesalers Pfeiffer (Unigruppe/Unimarkt), Kastner, Kiennast and Wedl. MPreis is also supplied by Markant. The purpose of this purchasing cooperation is to strengthen the buying power of the members and partners vis-à-vis large branded goods manufacturers in particular. An empirical study examined the effect of purchasing alliances in the case of EDEKA, which came to the conclusion that customers would have paid 12% more for products at EDEKA if the purchase prices of these products had not been negotiated via the AgeCore purchasing cooperation.[67] In mid-2023, the European Commission also launched its investigations into the purchasing cooperations Coopernic, of which REWE is a member, and AgeCore. **The European Commission found no evidence of anti-competitive effects in the purchasing cooperations**.[68]

6.2.6. Mergers, takeovers, conduct in violation of antitrust law and antitrust court decisions

In addition to the competition variables discussed in detail above, mergers subject to notification, takeovers of competitors or producers at upstream or downstream stages of the value chain and, most recently, decisions by the Cartel Court due to various anti-competitive behavior have a particular influence on the behavior of individual market participants in the food retail sector. In order to facilitate brand entry and price or non-price competition

[67] Corstjens, Marcel (2022): International Retail Buying Groups: A Force for the Good? The case of AgeCore/EDEKA.

[68] See the press release dated July 13, 2023: https://ec.europa.eu/commission/presscorner/de- tail/en/mex_23_3847

In order to reduce or circumvent these costs, various market participants regularly resorted to takeovers of existing companies (competitors or producers at upstream or downstream stages of the value chain) or, in some cases, to cooperation or coordination with other companies (competitors or producers at upstream or downstream stages of the value chain) in violation of antitrust law.

However, the behavior of individual market participants in the food retail value chain that has taken place and been identified in this regard in the recent past will not be discussed in detail below. A must be made between (i) takeovers of competitors or mergers and (ii) the use of anti-competitive practices. In both cases, the individual companies usually pursue the goal of expanding their market share and sales or increasing the margins generated and thus the revenue or profit.

6.2.6.1. Takeovers of competitors and notifiable mergers

In recent decades, there have been several acquisitions or takeovers in the food retail sector in Austria, or the takeover of individual branches from competitors by competitors. This has enabled individual companies to enter a specific product or regional market with comparatively little economic risk, or to drive forward the development of their own locations through such takeovers. Such acquisitions/takeovers inevitably result in changes to the prevailing market structure and, accordingly, the individual market participants also have to adapt their market behavior to the new circumstances. This applies to both horizontal mergers[69] and vertical mergers[70]. The considerations and decisions of the individual companies are driven by the desire to expand their market share and sales and to increase the margins generated and thus the revenue or profit.

The year 1950 was formative for today's grocery retail, when the then still existing **Kon- sum-Genossenschaft Österreich** opened the first supermarket branch in Austria[71]. Prior to this, food retailing was characterized by individual merchants and self-service in individual stores was not yet common. However, mergers and the establishment of purchasing groups involving several merchants (e.g. merchants formed under the Adeg umbrella brand) had already occurred before this. In the years that followed, various companies were founded that focused their activities on the operation of supermarkets in the food retail sector. These included **Spar**, **Billa** and **Hofer** as well as the **Löwa** retail chain. This was followed by several takeovers of Austrian food retail market players by various national and international competitors. In 1968, for example, Aldi acquired the Austrian food retail chain

[69] i.e. mergers of competitors.

[70] i.e. mergers of companies at different stages of the value chain.

[71] Cf. ORF, Linz erinnert an geteilte Stadt, 15.04.2015, https://ooe.orf.at/v2/news/stories/2705411/, accessed on 11.10.2023.

The German retail chain **Tengelmann takes over Löwa** in 1972 (which later operates on the market under the name **Zielpunkt**) and between 1995 and 2000, **Billa and Meinl** are taken over **by Rewe**, parts of Meinl also being sold to Spar (see also the explanations in section 6.1.1). Further takeovers also took place as **Konsum and Zielpunkt** slipped into insolvency and several competitors to acquire their former locations; in addition, Rewe significantly increased its stake in Adeg(72).

The independent Federal Competition Authority was only established **on July 1, 2002** on the basis of the Competition Act. Since then, there have been various takeovers and mergers by competitors affecting the food retail and food wholesale sectors, although the impact of these has been significantly less than the previous ones. In this context, there have also been various decisions by the Cartel Court, for example due to incorrect and/or misleading information in the course of merger proceedings[73], due to the imposition of conditions or obligations to counteract permanent structural changes in the market[74] or due to the prohibited implementation of a notifiable merger[75]. Since the BWB was founded, mergers in the food retail sector have not had a significant impact on the market structure (see also the comments under point 6.1.1).

6.2.6.2. Cartel court decisions concerning the food retail sector

In addition, agreements and/or coordination of behavior between individual or several competing companies or between companies that are in a vertical distribution relationship can lead to restrictions or distortions of competition. Such conduct - which is illegal under antitrust law - as well as the choice and extent of such conduct are also attributable to the acting companies as market conduct. Agreements or coordination can come about explicitly (i.e. with formal agreements to form a cartel) or implicitly (i.e. without a formal agreement on the basis of a "common understanding").

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[72] Cf. history of BIlla AG, https://www.billa.at/unternehmen/geschichte, retrieved on 11.10.2023; history of Hofer KG, https://www.hofer.at/de/ueber-hofer/unternehmen/hofer-geschichte.html, retrieved on 11.1000.2023; Statista, Statis- tiken zum Thema Supermärkte in Österreich, https://de.statista.com/themen/4529/supermaerkte-in-oesterreich/#topicOver- view, retrieved on 11.10.2023; nachrichten.at/apa, Zielpunkt history began with "LÖWA" stores, https://www.nach- richten.at/nachrichten/ticker/Zielpunkt-Geschichte-begann-mit-LOEWA-Maerkten;art449,2042751, accessed on 11.10.2023; Gewinn, Lebensmitteleinzelhandel - hier geht's um, 2012, https://www.wu.ac.at/filead- min/wu/d/i/retail/PDF_Dokumente/Pressemeldungen/2012/Gewinn_04_12.pdf, accessed 11.10.2023.

[73] See BWB/Z-2936 and OLG Vienna of 20.11.2018 to 24 Kt 8/18h, *REWE International AG*.

[74] See BWB/Z-5650 and OLG-Wien of 24.03.2022 regarding 25 Kt 8/21w, *Metro Cash & Carry Österreich GmbH and C&C Abholgroßmärkte Gesellschaft m.b.H.*; BWB/Z-5650 and OLG-Wien of 24.03.2022 regarding 25 Kt 9/21t, *Metro Cash & Carry Öster- reich GmbH and C&C Abholgroßmärkte Gesellschaft m.b.H.*

[75] See OLG Vienna of 27.01.2015 to 27 Kt 65/14, *Ankerbrot AG*; OLG Vienna of 27.01.2015 to 27 Kt 67/14, *Ankerbrot AG*.

Over the past two decades, BWB has identified numerous violations of antitrust law in the food retail and wholesale sectors[76] and, at BWB's request, the Cartel Court and the Higher Cartel Court have imposed not inconsiderable fines on the companies involved. The successful prosecution of unlawful market behavior under antitrust law has made it clear which behavior of market participants is not tolerated by antitrust law under any circumstances(77).

Worth mentioning here are the antitrust proceedings against Spar, which ended with the imposition fines of EUR 30 million in 2015 and an additional EUR 10.21 million in 2016, and REWE with EUR 20.8 million in 2013. In addition, the prohibition of the takeover of two AGM wholesale stores by Metro in 2022, whereby the takeover of seven AGM wholesale stores did not raise any competition concerns(78).

In the course of this sector inquiry, various market behaviors were identified - carried out by individual or several acting companies - which sometimes have the potential to give rise further and more in-depth investigations and surveys by the BWB.

6.3. Market result

The market behavior described above can be influenced by purchase prices, sales prices, trading margins and profits, among other things. These variables in particular are the focus of this chapter. Other outcomes of market behavior are largely omitted, with the exception of the discussion of shrinkage inflation (reductions in the contents of a package while the package size and price remain the same) and ski inflation (deterioration in quality while prices remain the same) (see section 6.4).

[76] Cf. OLG Vienna of 27.01.2014 at 25 Kt 29/13, *REWE International Lager und Transport GmbH, Merkur Warenhandels-AG, Billa AG*; OLG Vienna of 18.12.2014 at 27 Kt 63/14, *MPREIS Warenvertriebs GmbH*; OLG Vienna of 11.12.2014 at 29 Kt 64/14, *Sutterlüty Handels GmbH*; OLG Vienna of 02.07.2015 at 26 Kt 9/15, *Pfeiffer HandelsgmbH, Zielpunkt GmbH*; OLG Vienna of 30.06.2016 on 26 Kt 4/16g, *HOLDAG BeteiligungsgmbH, INTERSPAR GmbH, SPAR HOLDING AG, SPAR Österreichische Warenhandels-AG, Maximarkt Handels-GmbH, LM Beteiligungs GmbH*; OLG-Wien of 30.06.2016 to 27 Kt 4/16i, *HOLDAG BeteiligungsgmbH, INTERSPAR GmbH, SPAR HOLDING AG, SPAR Österreichische Warenhandels-AG, Maximarkt Handels-GmbH, LM Beteiligungs GmbH*; OLG Vienna of June 30, 2016 to 29 Kt 10/16m, *HOLDAG BeteiligungsgmbH, INTERSPAR GmbH, SPAR HOLDING AG, SPAR Österreichische Warenhandels-AG, Maximarkt Handels-GmbH, LM Beteiligungs GmbH*.

[77] Cf. *Stockenhuber*, Die SPAR-Entscheidung des OGH, Neues zu vertikalen Wettbewerbsbeschränkungen und zur Bußgeldhöhe?, infolaw.at, https://www.infolaw.at/downloads/ass_-prof_dr_peter_stockenhuber_ll_m-die_spar-entscheidung_des_ogh_neues_zu_vertikalen_wettbewerbsbeschraenkungen_und_zur_bußgeldhoehe-2015-11-26.pdf, accessed on 11.10.2023;

[78] A regularly updated table of fines imposed by the Cartel Court or Cartel High Court in Austria is available on the BWB website at: https://www.bwb.gv.at/recht-publikationen/geldbussen.

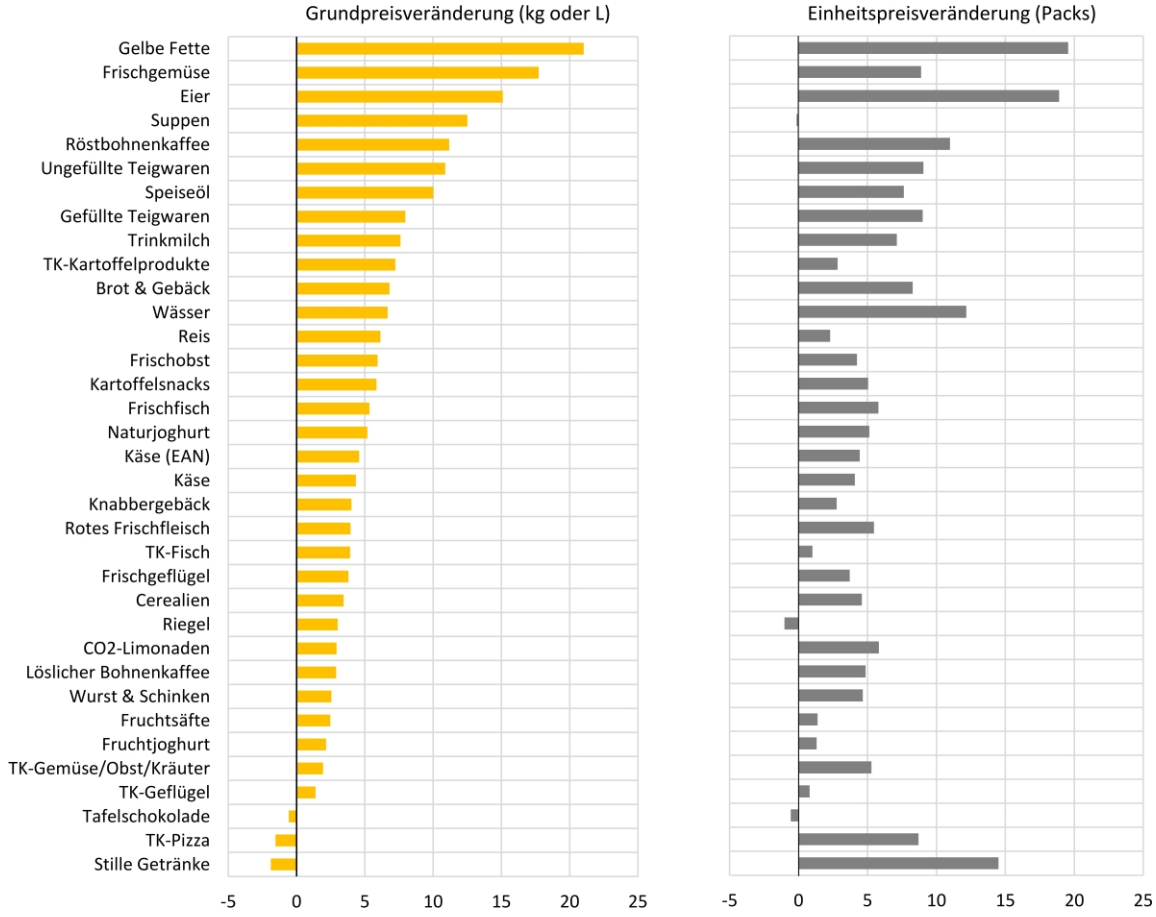
6.3.1. Sales prices

6.3.1.1. Product groups: General

Over the period from the second half of 2021 to the first half of 2022, the sales prices of yellow fats increased the most in the BWB basket (Figure 33), regardless of whether the prices are expressed in kg or sales units (packs or packages). In the following, the price in kg or L should be expressed as the basic price and the price per sales unit as the unit price. The average increase in base and unit prices for yellow fats in the first half of 2022 amounted to around 20% compared to the previous six months and affected butter, margarine and mixed fats. There were also considerable price increases for fresh vegetables and eggs. At the lower end, there are three product groups whose base prices have actually fallen. However, the average unit prices of two of these product groups (frozen pizza and non-carbonated drinks) have risen sharply. Obviously, consumers in these product groups have increasingly resorted to larger units with a lower price per kilogram or liter.[79] There are also considerable differences between the base price and unit price changes for soups and bars. In these two cases, there appears to have been a shift to smaller units with higher base prices. For the remaining product groups, however, the rule for the first half of 2022 is that an increase (decrease) in base prices was accompanied by an increase (decrease) in unit prices compared to the previous half year. Only chocolate bars saw a decrease in both average base prices and average unit prices.

[79] If, for example, 1.5L of a beverage costs EUR 3, but one would only have to pay EUR 2.5 for a liter bottle of a substitute, a 1-to-1 switch to the larger unit would lead to a falling liter price on average, but would cause the average sales price per sales unit (i.e. per bottle) to rise.

Figure 33: Change in sales prices (in %), 2021H2-2022H1



Note: The product groups "Cheese (EAN)" and "Cheese" differ in that the latter mainly includes cheese in service. Packs refer to sales units (e.g. bottles or packs).

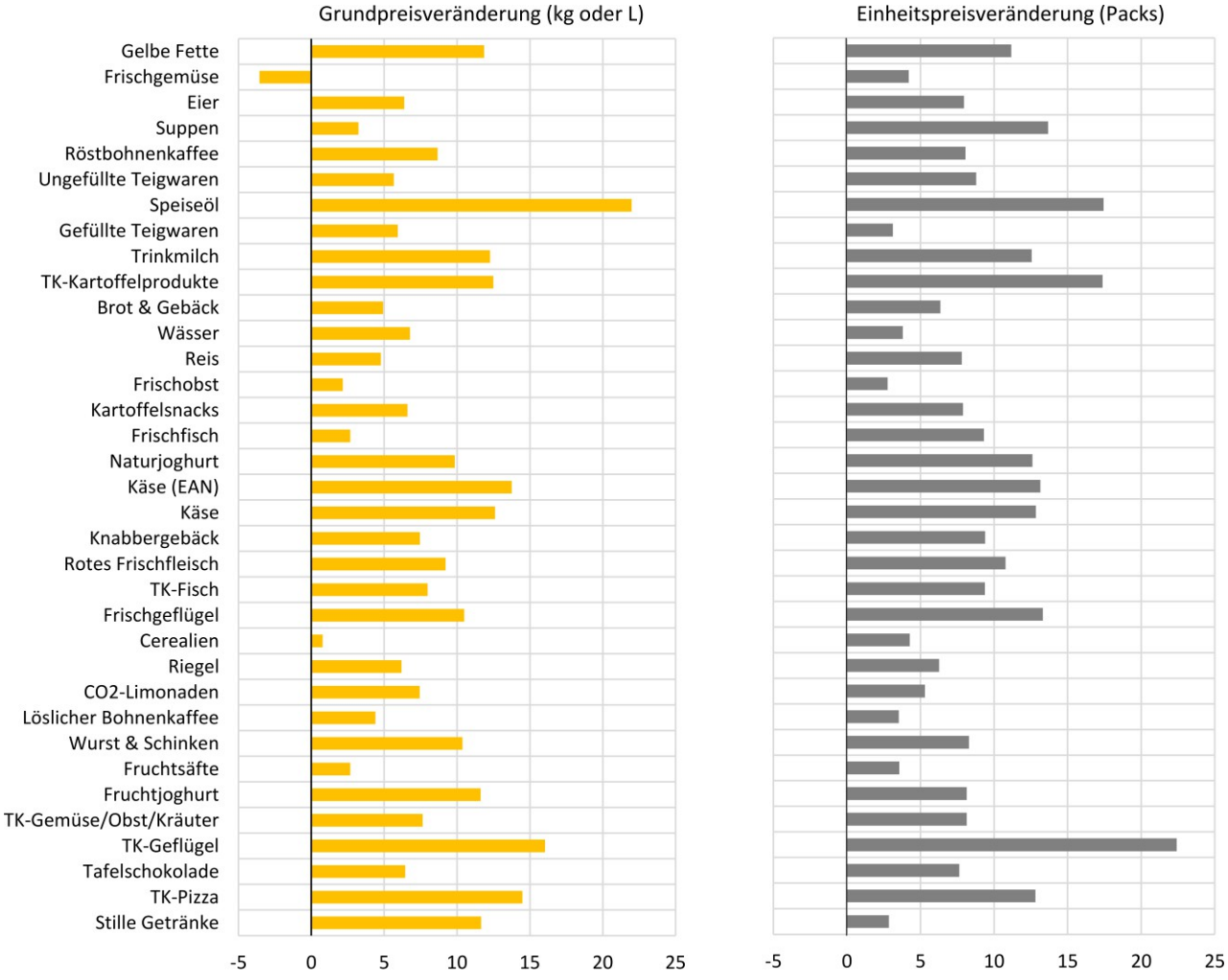
Source: Consumer Panel Services GfK; own calculation.

In the second half of 2022, cooking oil and frozen poultry increased in price the most compared to the previous six months, as shown in Figure 34. The arrangement corresponds to that in Figure 33 to enable a visually simple comparison of the extent to product groups whose sales prices rose sharply the first half of 2022 also rose sharply in the second half of the year. A slight catch-up effect can be seen, as those product groups whose sales prices rose comparatively less sharply in first half of 2022 became particularly expensive in the second half of 2022. Edible oil can be seen as an exception that runs counter to this slight but not very pronounced trend. In the first half of 2022, the price per liter in this product group increased by 10 percent, but by more than 20 percent in the second half of 2022.[80] The same applies to unit prices (especially for bottles and cans). In addition to cooking oil, the sales prices of frozen poultry were also drastically increased in the second half of 2022. The basic price rose by just over 15%, while the unit price paid by more than 20%.

[80] A price increase of 10 percent in the first six months and a price increase of 20 percent in the second six months correspond to an annual price increase of 32 percent. Example: A product with an initial price of EUR 10 costs EUR 11 after the first six months (= price increase of 10 percent) and EUR 13.2 after a further six months (price increase of 20 percent). This corresponds to an annual increase of EUR 3.2, i.e. 32 percent.

In contrast, comparatively low increases in the sales prices paid were seen in the fresh fruit, fresh fish, cereals and fruit juice product groups. In the case of fresh vegetables, there was even a fall in base prices of a few percent, but a similar increase in unit prices.

Figure 34: Change in sales prices (in %), 2022H1-2022H2



Note: The order of the product groups corresponds to that in Figure 33. The product groups "Cheese (EAN)" and "Cheese" differ in that the latter mainly contains cheese in service. Packs refer to sales units (e.g. bottles or packs).

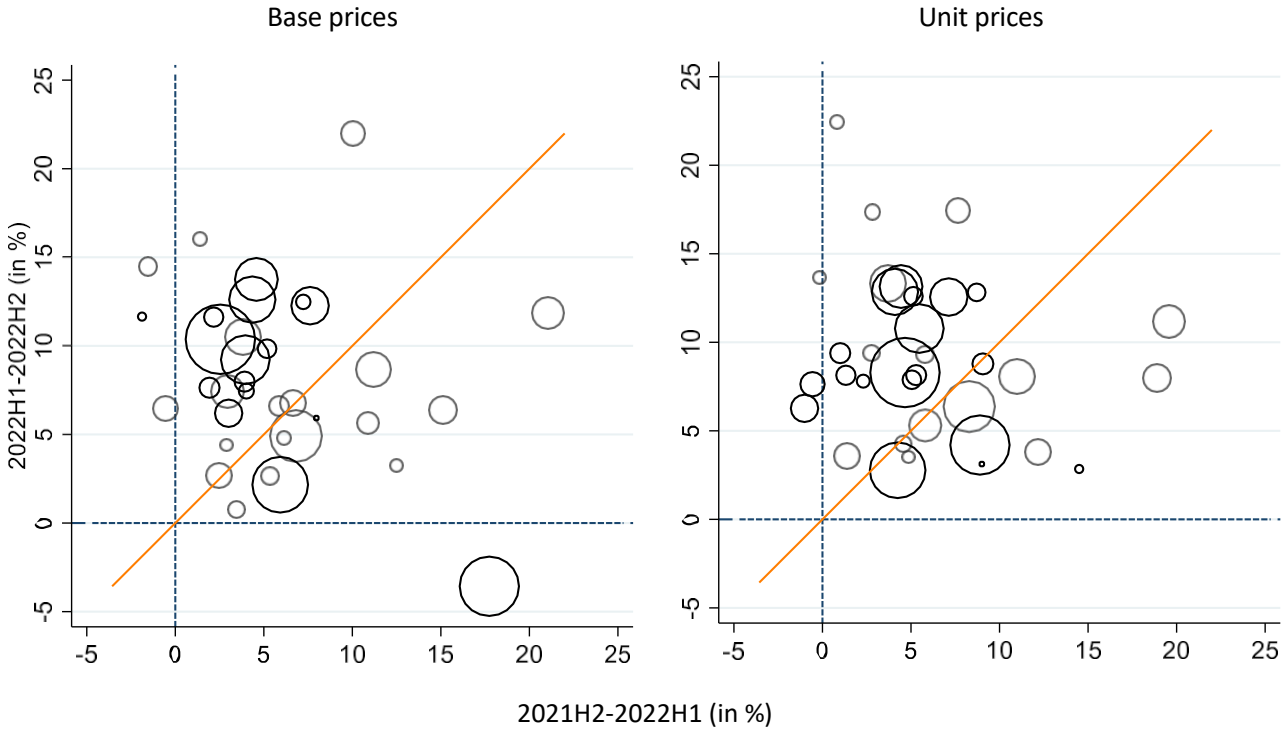
Source: Consumer Panel Services GfK; own calculation.

The catch-up effect in the second half of 2022 described above can be seen in Figure 35. If a ring in the figure lies on the orange 45-degree straight line, the sales prices changed by the same percentage in the two half-years (2022H1 and 2022H2). In the case of the base price, this to fruit juices and waters, for example.[81] In the case of the unit price, however, this applies above all to cereals.

[81] Fruit juices increased in price by 2.7% in the first half of 2022 and by 2.5% per liter in the second half of 2022. The price per liter of water rose by 6.8% in the first half of 2022 and by 6.7% in the following six months.

and unfilled pasta.[82] However, if a ring lies above the 45-degree straight line, the sales price rose more sharply in the second half of 2022 than in the previous six months. The reverse is true for rings below the 45-degree line. Overall, the rings are relatively widely scattered around the 45-degree straight line, which indicates a catch-up effect: if sales prices rose particularly sharply in the first half of 2022, the change in sales prices in the following half-year was comparatively weak and vice versa. This effect appears to be visually more pronounced for basic prices than for unit prices.[83] Furthermore, the charts show no discernible correlation between sales price changes and the expenditure or turnover shares of the product groups in the BWB basket. If sales prices in higher-turnover product groups had been raised more, the larger rings would have been located more frequently to the north-east of the smaller rings. However, this is not the case[84].

Figure 35: Comparison of sales price changes



Note: The diameter of the rings measures the sales shares of the product group for the year from 2021H2 to 2022H1.

Source: Consumer Panel Services GfK, own calculation.

[82] In terms of sales units, the price of cereals rose by around 4.3% in the first half of 2022 and by around 4.in the second half of 2022. The unit price of unfilled pasta rose by around 8.in the first half of 2022 and by 9.1% in the second half of 2022.

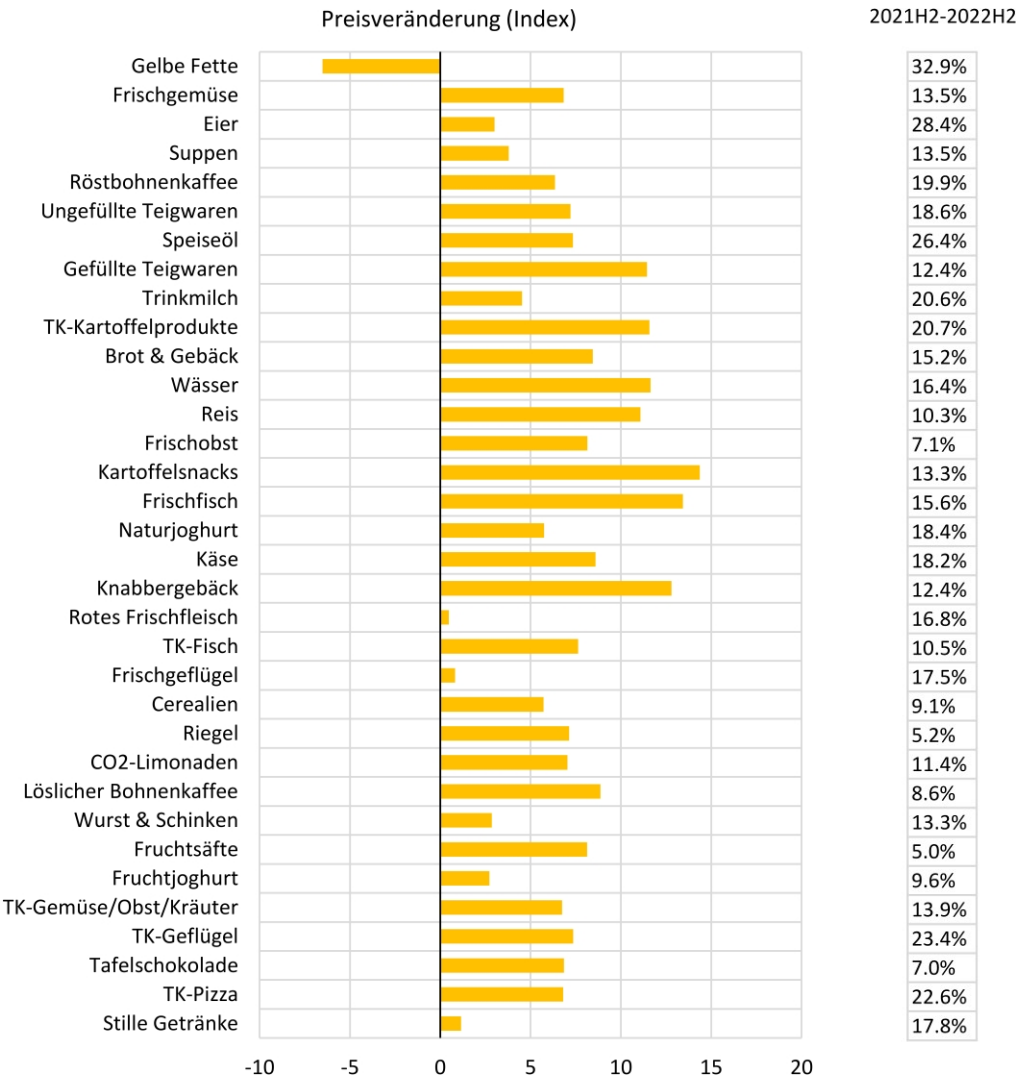
[83] If a simple regression is carried out in each case, the estimated coefficients cannot be distinguished: Base price -0.18570, Packs -0.18565. In both cases, however, there is no statistical significance. The p-values are at least above 0.25 in each case.

[84] Simple regressions of sales prices on sales shares produce estimates with p-values at least greater than 0.3. Due to the catch-up effect described in the text, the (insignificantly estimated) coefficient changes sign when comparing the first half of 2022 with the second half (positive in the first half and negative in the second half).

In the course of requests for information, turnover data and sales volumes were also requested from food retailers for the first two quarters of 2023. Based on this data, unit prices can be calculated for products with barcodes and either unit or base prices for fresh products, which are primarily purchased in service. For fresh products, retailers had the option of specifying either in pieces or kilograms. For this reason, a base half-year (2nd half of 2022) was chosen to calculate the price changes in order to calculate a price index in the sense of a consumer price index. Based on this, a price change could be calculated for each product group. Figure 36 shows these changes in sales prices in the first half of 2023 compared to the second half of 2022, whereby the two product groups for cheese (with barcode and in service; see Figure 33) could not be shown separately.

In the first half of 2023, it is noticeable that only the sales prices of yellow fats have fallen, while all other product groups have mostly become moderately to strongly more expensive. It should be here the sales prices of yellow fats still rose the most in the first half of 2022, indicated by the order of the product groups in Figure 33. In the first half of 2023, **potato snacks (+14.4%),** fresh fish (+13.4%) and **snacks (+12.8%)**, among others, rose sharply in price. In contrast, the sales prices of fresh red meat (+0.5%), fresh poultry (+0.8%) and non-carbonated beverages (+1.1%) barely increased compared to the previous six months. Finally, the table on the right in Figure 36 lists the cumulative unit price changes (Consumer Panel Services GfK data) for the product groups from the second half of 2021 to the second half of 2022. Unit prices were chosen because they are the most likely to be linked to the calculated prices based on the data provided by the retailers, .e. with a sufficiently small error.

Figure 36: Change in sales prices (in %), 2022H2-2023H1



Note: The order of the product groups corresponds to that in Figure 33.

"Cheese (EAN)" and "Cheese" was not possible. In the table on the right, the unit price change of these two product groups was calculated as an aggregate.

Source: Requests for information (left), Consumer Panel Services GfK (right), own calculation.

6.3.1.2. Own brands

In the public debate, the topic of private labels came up several times during 2022, as some of their sales prices are said to have risen more than those of branded products. In the course of stakeholder discussions, the BWB was also asked whether food retailers had also raised the sales prices of branded products more than those of own brands in order to cross-subsidize own brands. However, since the relative sales prices of branded products are rising compared to private labels, branded products are gradually being pushed out of the shelves, as customers are gradually switching to private labels. In this subchapter, the private label issue will be taken up in the light of these perceptions of price increases.

In September 2022, the **Association for Consumer Information (VKI**) conducted an analysis of private labels. It came to the conclusion that over the period from October 2018 to October 2022, the prices of private labels in the entry-level price segment often rose by a higher percentage than branded products.[85] Several private label products, especially cooking oil, experienced massive price increases of over 50 percent, which could not be observed as often with branded products.

However, BWB analyses based on Consumer Panel Services GfK data show a **highly differentiated picture**. Figure 37 shows four charts with the percentage and absolute price changes of own and manufacturer brands in 26 product groups over the period from the second half of 2021 to the second half of 2022, distinguishing between base prices and unit prices. Absolute price changes were calculated because many own brands primarily cover the entry-level price segment. The lower the initial value, the higher the percentage change of a price increase of one euro (base effect). If a ring lies on the orange 45-degree straight line, the average prices paid for private labels and branded products change to the same extent (in percentage or absolute terms). The ring size measures the share of private labels and is intended to approximate the intensity of competition that private labels face from branded products.[86] The lower the share of private labels, the more branded products are as an alternative and were often chosen by consumers. In contrast, a high share of private labels tends to signal greater buyer power or bargaining power on the procurement market. Of interest here is the relationship between the share of private labels and the price change of private labels, especially in comparison to branded products.

Three cautious but important conclusions can be drawn from the charts in Figure 37:

1. Compared to absolute price changes, percentage price changes show more product groups in which the average selling prices paid for private labels have increased more than for branded products. This applies to both base prices and unit prices. As the entry-level price segment is often covered by private labels, the base effect is at work here.
2. While the average selling prices paid for private labels have risen more in percentage terms than for branded products in the majority of product groups, the opposite observation can be made for absolute price changes.[87] The base effect is therefore strong enough to reverse the statement. In the charts, this means that with percentage

[85] https://konsument.at/supermarktpreise22

[86] The own-brand share was calculated for the period from the second half of 2021 to the first half of 2022.

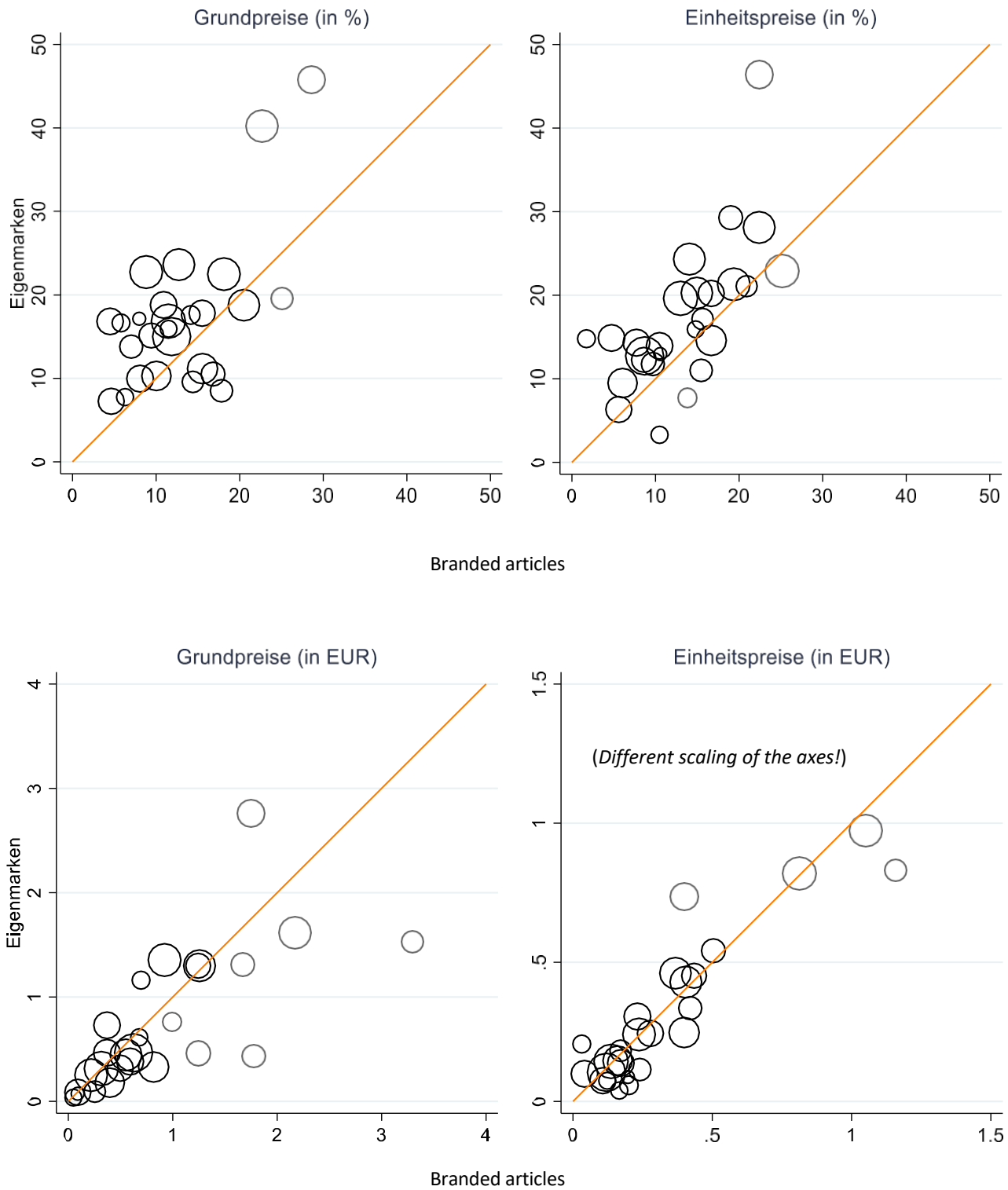
[87] See the note below the illustration.

price changes, more than half of the rings lie above the 45-degree line. On the other hand, in the case of absolute price changes, more than half of the rings lie below the 45-degree line.

3. In terms of percentage price changes, the private label share appears to a slight positive correlation with the changes in private label prices. In the top two charts, higher private label shares tend to be above the 45-degree straight line. The higher the share of private labels, the higher the price increases for private labels tended to be. In the case of absolute price changes, however, no clear influence can be identified as to whether the euro prices of private labels tended to be raised more than those of branded products.

For 2022, it can be summarized that in the majority of product groups, the average own-brand prices paid have increased more *in percentage terms* than the average branded product prices paid. However, the opposite is true for *absolute* price changes. Both statements apply to basic prices as well as unit prices. In addition, higher percentage price increases for private labels go hand in hand with higher private label shares in the respective product groups. However, this correlation is weak and can no longer be observed for absolute price changes.

Figure 37: Own brands vs. branded products, price change 2021H2-2022H2



Note: Each ring represents one of 26 product groups. The ring diameter measures the share of private labels within the respective product groups. Only Spar, Rewe, Hofer and Lidl were taken into account. Number of product groups above the 45-degree straight line, starting with the chart on the top left and then clockwise: (i) 20, (ii) 21, (iii) 8 and (iv) 12.

Source: Request for information.

6.3.1.3. Multinational corporations

The BWB was also asked whether the product prices of multinational companies were increased more than those of other companies and whether there is a correlation between the share of multinationals in the total turnover of the product group and the sales price increases. Before answering these questions, it is necessary to define multinational companies in more detail. The BWB defined 26 companies as multinational food companies for the purposes of this industry study. The selection is entirely subjective and could be expanded or narrowed down to a core. The aim was to cover the most important food groups with supranational brand perception and relevant market shares in the Austrian food retail sector. Table 12 shows the list of companies that the BWB classified as multinational companies in the data.

Table 12: Multinational corporations (BWB selection)

Nestlé	Upfield	Ferrero
Unilever	Bel Brands	Storck
Mondelez	Nomad	Lindt & Sprüngli
Danone	Kelly's	Heinz Kraft
Mars	Lactalis	Associated British Food
Coca Cola[88]	Lavazza	General Mills
PepsiCo	Jacobs	Dr. Oetker
Red Bull	Tchibo	Barilla
Kellogg's	Savenica	

Source: Own selection.

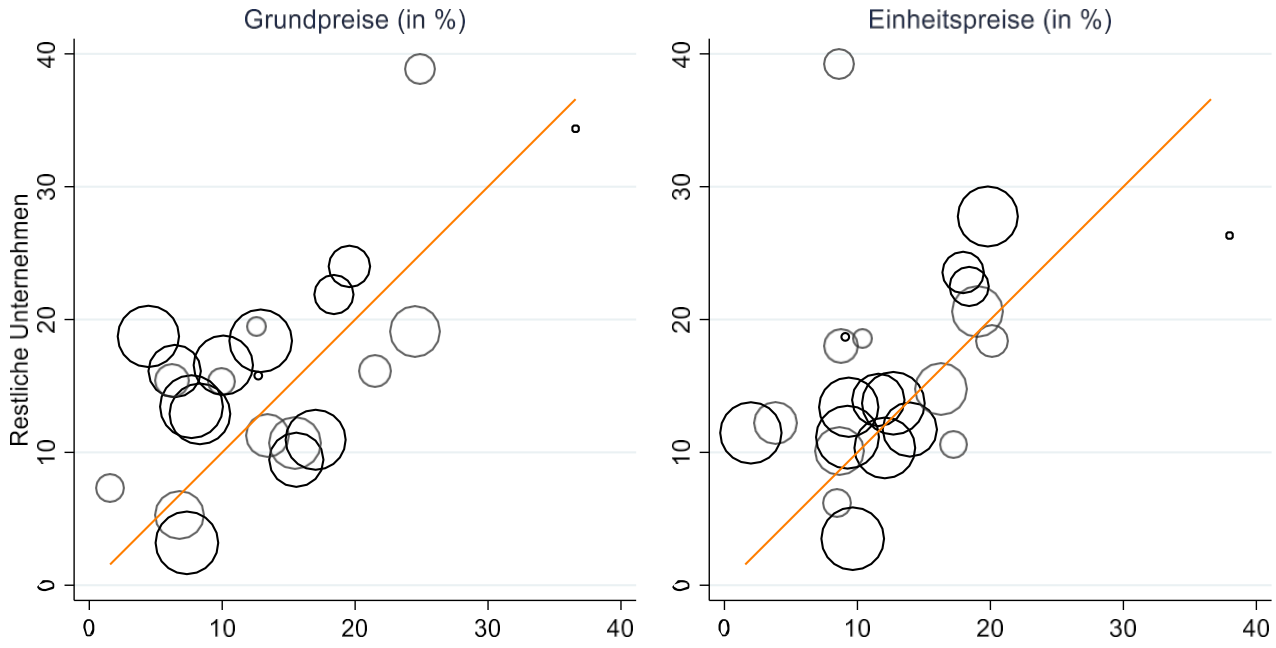
Figure 38 was created to answer these questions. This shows a comparison of the product price changes of multinational corporations and the rest in 23 different product groups. In two product groups, filled pasta and drinking milk, no multinationals are active to any significant extent, which is why these are not shown. Another product group (non-carbonated beverages) was also excluded due to implausible values. The diameter of the rings measures the sales shares of the multinationals in the product groups for the period from the second half of 2021 to the first half of 2022. A higher sales or market share can generally be associated with stronger negotiating power, meaning that price increases are easier to implement and may also passed on to end customers by food retailers. It is also conceivable that food retailers are more likely to raise the sales prices of products from multinational companies due to higher brand loyalty

[88] Includes Innocent and Costa Coffee, two companies separately in the data.

than that of comparable substitutes, as the price elasticity of products with strong brands is probably comparatively low. If the center of a ring lies on the 45-degree straight line, the sales price adjustments for products from multinational corporations and products from other companies were equally high. If, on the other hand, the center of the ring lies below the 45-degree straight line, the sales prices of products marketed by multinational corporations were increased more (or possibly reduced less) than the sales prices of the other companies.

The two charts in Figure 38 a pattern. Nine product groups lie below the 45-degree straight line for basic prices, 14 above. If unit prices are considered, eight product groups lie below the 45-degree straight line and 15 above. In 2022, the average selling prices paid for products from multinational companies rose less sharply than for products from other in the majority of product groups. In , is hardly any visible correlation between the share of sales of multinational companies and their price changes and the price changes of other companies. Larger rings tend to lie to the southwest of smaller rings in the two charts, which suggests a negative correlation between average price increases and the importance of multinational companies in the product groups. However, the correlation is weak.

Figure 38: Price change of multinationals and the rest, 2021H2-2022H2



Note: The size of the rings represents the share of multinationals in the respective product group over the period from the second half of 2021 to the first half of 2022. The largest rings represent a share of between 60 and 70% (e.g. 70% for soluble coffee beans). The smallest rings represent a share of less than one percent (e.g. 0.6% for cooking oil). In two product groups, filled pasta and drinking milk, no multinational corporations are active to any significant extent, which is why these are not included in the presentation. In addition, non-carbonated beverages were excluded, as the price change of the only multinational group (with a low customer reach) in this product group was considered unlikely (more than -30%).

Source: Consumer Panel Services GfK.

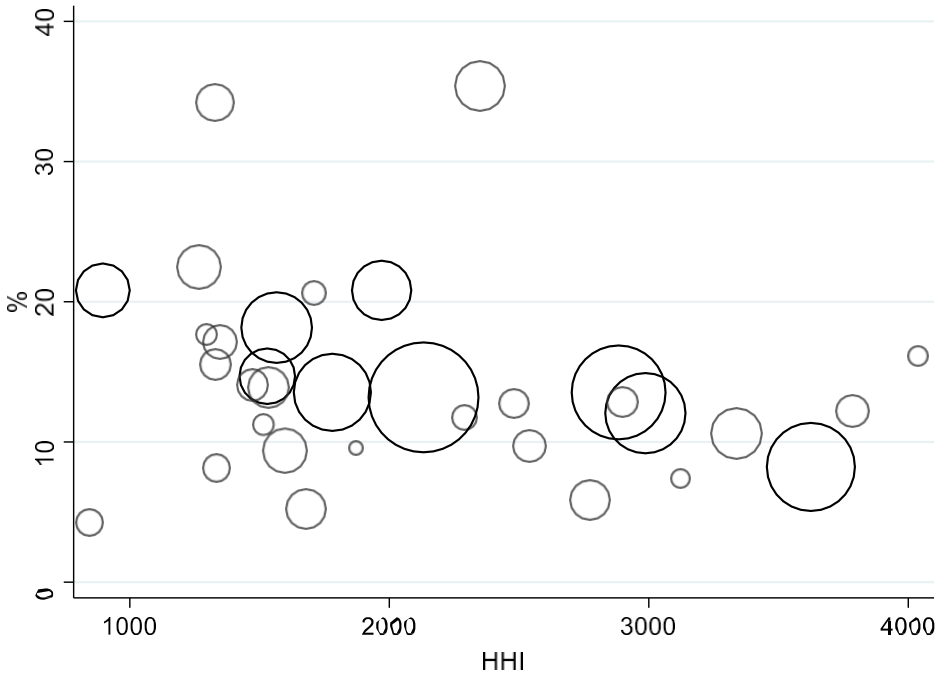
Although some multinational companies in Austria sometimes sell at systematically higher prices compared to Germany, as explained section 7.4, the retail prices of products from multinational companies were not noticeably higher than those of products from other companies. In addition, the average sales prices were raised more in product groups in which multinationals are less dominant.

6.3.1.4. Price changes and shelf concentration

If we look at the annual price changes between the second half of 2021 and 2022 and compare them with the values of the Herfindahl-Hirschman Index (HHI), Figure 39 shows a recognizable correlation. The graph gives the impression of a negative correlation: a higher concentration in a product group was accompanied on average by a lower base price increase. Although simple scatter plots with price changes and different concentration measures do not allow for a causal interpretation, it can at least be concluded that strong price increases on grocery store shelves in 2022 were not necessarily to be found in the product groups with a high concentration.[89] A further illustration with unit prices is omitted here, as hardly any differences can be found in the illustration. In contrast to the basic prices, however, a simple regression of the unit price changes on the HHI produces a statistically significant coefficient (p-value=0.067).

[89] In economic models, both the prices and the concentration measures are explained in the model, so that additional or other variables are required for a causal interpretation (e.g. instrument variables). See Miller et al. (2022): On the misuse of regressions of price on HHI in merger review, Journal of Antitrust Enforcement 10 (2), 248-259.

Figure 39: Price change 2021H2-2022H2 vs. HHI 2021/2022



Note: The size of the rings represents the share of expenditure of the respective product group in the BWB basket over the period from the second half of 2021 to the first half of 2022. The HHI was calculated for the same period.

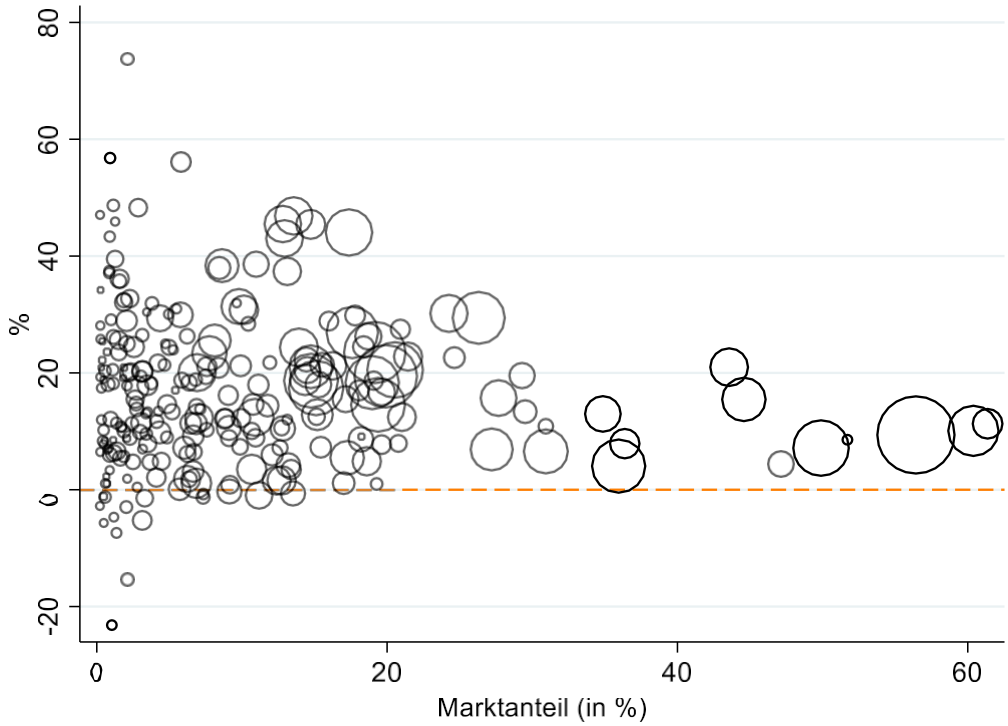
Source: Consumer Panel Services GfK; own calculations.

An ad hoc assumption could be that companies with high market shares are more likely to be able to implement price increases, since it is precisely the high market shares that indicate that customers do not consider competing products to be sufficiently suitable alternatives.[90] However, this correlation cannot be proven for companies in 26 product groups in the data, as can seen in Figure 40 for basic prices.[91] Companies with high sales shares both in the respective product groups and overall in the BWB basket can be assumed to be relatively powerful in their dealings Austrian food retailers. However, products from these companies, which tend to on the right-hand side of the figure with relatively large rings, do not show any substantially different price increases between the second half of 2021 and the second half of 2022 than products from manufacturers with apparently less bargaining power. A simple regression of the price change on the market shares of the companies produces an insignificantly estimated coefficient (p-value=0.292). A figure with unit prices instead of base prices does not produce any different results, which is why it is not shown in the text.

[90] This circumstance is already taken into account in the HHI in that high market shares are weighted more heavily.

[91] Only companies with an average customer reach of at least 2.5% (=100 customers) in 2022 were included in the figure. According to GfK, data from individual companies with a lower customer reach is associated with a high degree of uncertainty and interpretation of price changes or market shares is hardly reliable.

Figure 40: Price changes (base prices) 2021H2-2022H2 vs. market shares 2021/2022



Note: Companies in 26 product groups were taken into account (excluding fresh produce). The ring diameter measures the share of expenditure of the respective company within the product group in the BWB shopping basket. Companies with a customer reach of less than 2.5 percent were excluded.

Source: Consumer Panel Services GfK; own calculations.

In summary, it can be stated that the price development in the BWB basket of goods from 2021 to the end of 2022 was (i) not necessarily driven by product groups with a high concentration and (ii) not by companies with high market shares.

6.3.1.5. Parallel price behavior

Based on price data from heisse-preise.io, a price comparison platform, the Mentum Institute analyzed the prices of a shopping basket with private labels from Billa and Spar in May 2023.[92] This involved comparing 252 comparable items from Clever and S-BUDGET, private labels from REWE and Spar.[93] The comparison showed that almost 65 percent of these items (163) had the same price on 11 May 2023.

The **Momentum Institute** compared prices on a specific day. Price movements were not analyzed over a period of time. If product pairs are selected from the same shopping cart

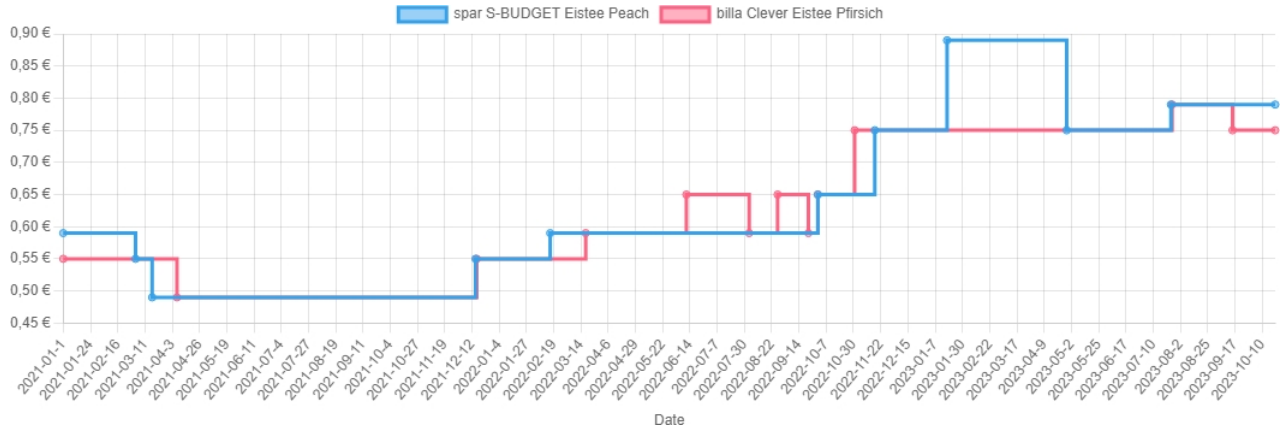
[92] https://www.momentum-institut.at/news/eigenmarken-preisvergleich-preis-zu-zwei-dritteln-ident

[93] https://heisse-preise.io/cart.html?name=Momentum%20Eigenmarken%20Vergleich

and looks at price movements over time, a somewhat **differentiated picture** emerges**, with prices often diverging but with a long-term tendency towards price convergence**.

On 11 May 2023, for example, the price for 1.5 L of peach iced tea from both Clever and S- BUDGET was exactly EUR 0.75. Looking at price movements of both private labels over time, Figure 41 shows regular deviations with a recurring alignment in the case of price adjustments. Only one day can be judged as "conspicuous" in the figure. On September 30, 2022, both companies increased prices from EUR 0.59 to EUR 0.65. Billa had already carried out such a price increase twice in the three months prior to this, but reversed it the first time after around seven weeks and the second time after just under four weeks. However, the price movements on the other days are consistent with systematic price matching, which the food retail companies carry out intensively and in compliance with internal budget targets, on the one hand, and intense competition on the other. The latter is illustrated by the episodes in which company raised prices but then withdrew them again because the competitor did not follow suit.[94] This concerned the periods from June 11 to August 2, 2022 and from August 27 to September 21, 2022, when the prices for 1.5L own-brand iced tea in Billa stores were 6 cents higher than in Spar stores. The reverse was true from January 17, 2023 to August 27, 2023. During this period, S-BUDGET iced tea was 14 cents more expensive than Clever iced tea.

Figure 41: Ice tea prices from Clever and S-BUDGET



Source: heisse-preise.io.

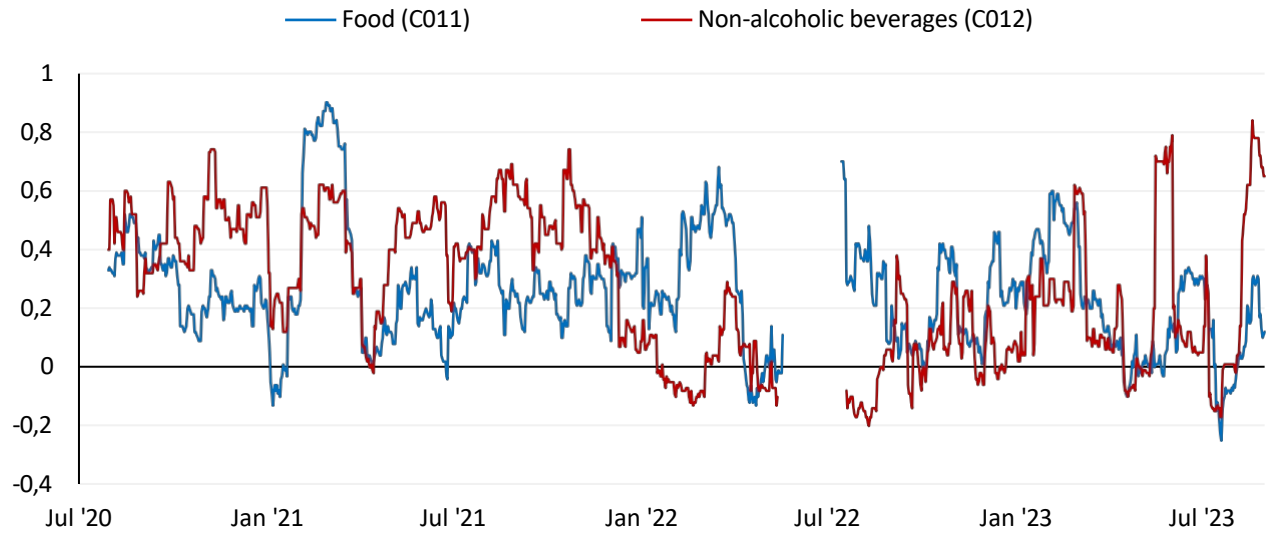
The picture becomes increasingly differentiated when looking at the price movements of other items from the private label basket. Although there are always isolated days that can be described as "due", as both companies have made price adjustments of the same amount on these days, there are often deviations and price adjustments unanswered by the competitor that would hardly be compatible with systematic tacit agreements.

[94] Two other days in the figure also appear "conspicuous", but the price adjustments took place on two consecutive days, which is not too far-fetched against the background of systematic price matching.

The **Austrian National Bank (OeNB)** has been **web scraping** a number of online supermarkets since mid-2020 in order to carry out price analyses, which are of central importance to central banks for analyzing inflation trends and the transmission mechanisms of monetary policy. The OeNB analyzed the recorded price data for the BWB. The majority of the transmitted results can be found in the chapter on online grocery retailing under point 6.5.6. Only part of the analysis on the correlation of daily price change frequencies between two hybrid supermarkets will be explained here.[95] The daily price change frequency is defined by the OeNB as follows: "*The daily price change frequency the number of products whose price lower or higher on the reference date t than on the reference date t-1 as a percentage of all products observed on the reference date t and on the reference date t-1. The focus of the analysis is on the weekday level, which is why the number of observed price changes on weekday t is set in relation to all possible price changes on weekday t*." For the two hybrid supermarkets, Figure 42 shows rolling correlation coefficients with 30-day windows for the COICOP groups food (C011) and non-alcoholic beverages (C012). As a rule of thumb, a positive correlation greater than 0.7 can be described as "strong", between 0.5 and 0.7 as "moderate", between 0.3 and 0.5 as "weak" and below 0.3 as "very weak" or "non-existent". The majority of the correlations of the price change frequencies in Figure 42 can assessed as either moderate or weak. However, there are also periods with strong or very weak or non-existent correlations. This applies to both food and non-alcoholic beverages, although the correlation of price change frequencies for food before 2022 would largely have to be described as either weak or very weak. In 2022 and into 2023, the correlation for non-alcoholic beverages appears to have largely disappeared.

[95] In the following, a hybrid supermarket is understood to be a food retail company that not only an online store but also has brick-and-mortar stores.

Figure 42: Rolling correlation of daily price change frequencies between two hybrid supermarkets (30 days)



Note: From 19.04.2022 to 12.07.2022, no data could be recorded for an online supermarket, which is why the correlations could not be calculated from 18.05.2022 to 14.07.2022 and the calculation depends on very few observations in the month before and after this missing period.

Source: OeNB-Prisma web scraping data, calculation by the authors.

Due to the aggregation of many different food items and beverages, the presentation of the COICOP groups food and non-alcoholic beverages may mask high correlations of the price change frequencies of subgroups. The OeNB also analyzed the direct COICOP subgroups (4-digit) of food (9 subgroups) and non-alcoholic beverages (2 subgroups). The majority will only be described verbally here:

Table 13: Rolling price correlations (30 days) by COICOP-4 class (1/2)

COICOP 4-positioner	Designation	Description of the correlation of the price change frequency
C0111	Bread and cereal products	Similar to the correlation of the price change frequency of C011 throughout.
C0112	Meat, meat products	Similar to the correlation of the price change frequency of C011, but with stronger upward and downward swings.
C0113	Fish	Often weak and non-existent with occasional strong upward swings. Strong only briefly in July 2023.
C0114	Milk, cheese and eggs	Often similar to the correlation of the price change frequency of C011, but with a considerable divergence in the first quarter of 2022 (non-existent).
C0115	Oils and fats	Fluctuates strongly between non-existent and moderate with occasional swings towards strong correlation.

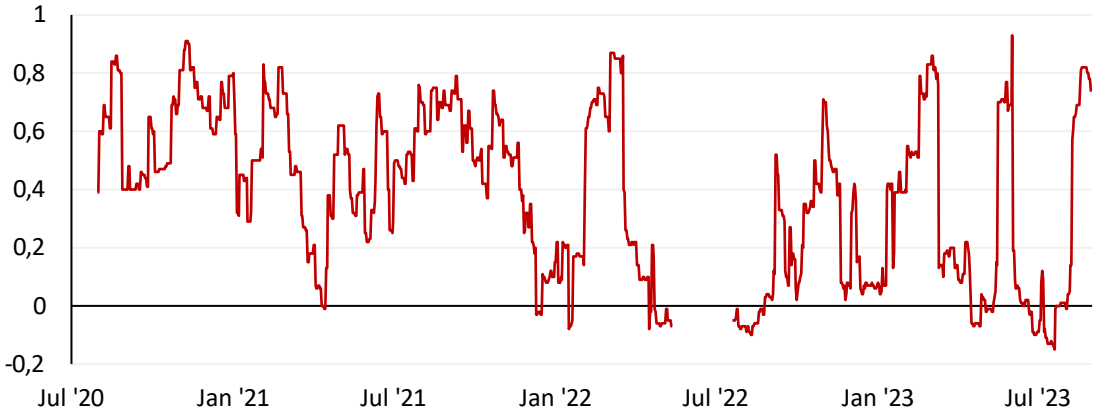
Table 13: Rolling price correlations (30 days) by COICOP-4 class (2/2)

C0116	Fruit	Often negative and very weak. Isolated swings with moderate positive correlation from mid-2022.
C0117	Vegetables	Similar to the correlation of the price change frequency of C0116, but with lower volatility.
C0118	Sugar, jam, honey, chocolate and confectionery	Volatile and mostly very weak to non-existent. Occasionally moderate and strong in July and early August 2022.
C0119	Other foods	Volatile and mostly weak to very weak. Occasionally moderate and strong.
C0121	Coffee, tea and cocoa	Often higher but similar to the correlation of the price change frequency of C012. Considerable divergence in the first quarter of 2022 (strong).
C0122	Mineral water, soft drinks and juice	Usually lower than the correlation of the price change frequency of C012. Very weak to non-existent with few upward spikes (moderate).

Source: OeNB-Prisma web scraping data, calculation by the authors.

The highest correlation of price change frequency is regularly found in the COICOP class "Coffee, tea and cocoa" (C0121). Figure 44 shows correlations that can be described as moderate or strong more often than for other COICOP classes. This is particularly evident in 2021 until the middle of 2022, after which the correlation of the price change frequency decreases on average and begins to be strong between
"inexistent"/"very weak" to "strong". **Although no threshold values for correlations of the price change frequency can be specified above which collusion may be cautiously suspected, the moderate to high volatility of the correlation coefficients of the price change frequency does not in itself indicate an initial suspicion of cartelization.** At this point, it must also be emphasized that price and price change correlations must also be present in order to be able to speak of intensive competition. However, the price matching described above does not take place at COICOP level, but at item level, as consumers do not compare aggregated product groups, but rather a handful of prices of the most important everyday items in order to decide which store to visit for their purchases.

Figure 43: Rolling price correlation (30 days) of coffee, tea and cocoa (C0121)



Note: From 19.04.2022 to 12.07.2022, no data could be recorded for an online supermarket, which is why the price correlations could not be calculated from 18.05.2022 to 14.07.2022 and the calculation depends on very few observations in the month before and after this missing period.

Source: OeNB-Prisma web scraping data, calculation by the authors.

Although prices and price adjustments of the same amount for comparable products often appear suspicious to consumers, no tacit agreement can be inferred from price movements over a longer period of time, at least not on their own. **Rather, one can speak of intense competition for food products, the core assortment of the food trade**. As a result, food retailers seem to spare no expense in conducting intensive market observations and, based on this, systematic price matching (see points 6.2.2 and 6.2.3). This behavior applies not only to Rewe and Spar, whose own brands are compared in Figure 41, but also to Hofer, Lidl and MPreis. The feedback suggests that none of these companies can afford to be systematically perceived by consumers as being more expensive than their closest competitor for key items in the food range. The closest competitor for Spar, for example, is Billa and, in Tyrol, MPreis. On the other hand, competition is most intense between Hofer and Lidl, whereby competitive pressure is also exerted by the supermarkets' own entry-level price brands (e.g. Clever or S-BUDGET). For this reason, all relevant competitors on the food market are also monitored.

6.3.2. Purchase prices

One retailer reported that in 2022, suppliers increasingly made demands for large price increases. However, the suppliers were only able to enforce these in part. Against the background of internal margin and budget targets of food retailers, no substantial changes in retail margins and deterioration in profit margins for food retailers could be expected in the aggregate. Assuming that the price demands made by suppliers do not seek to cover higher costs disproportionately, incompletely realized price demands suggest that trade margins or profit margins at suppliers in the aggregate should have tended to fall.

Whether demands were also accepted by retailers depends on the transparency of the costs relevant to production. The more transparent the development of costs, the more likely food retailers seem to partially or fully accept higher demands, provided they can be explained by higher costs. International price quotations for raw materials (e.g. coffee, milk, etc.) in particular create transparency here and, according to suppliers, also seem to have contributed to greater acceptance of price increases by retailers. If suppliers are able to clearly derive the development of their costs, demands for higher purchase prices are often accepted after intensive negotiations. Due to the buying power of retailers, however, the disclosure of highly sensitive internal company information can considered problematic. If cost increases are represented by publicly accessible or proprietary data on raw material, energy and packaging prices as well as transportation and personnel costs, relevant internal company information remains concealed. However, if the pressure from retailers also results in the disclosure of trade secrets, the negotiating power of suppliers may deteriorate in individual cases, which can have adverse implications for competition in the food industry. Buyer power in a downstream market can certainly be seen as a barrier to market entry in upstream markets and thus restrict potential competition in these markets.

If the negotiations do not lead to an agreement, this can result in either the delivery of goods being stopped by the manufacturer or the purchase of goods being stopped by the retailer. Delivery or procurement stops often seem to the result of failed negotiations. It can also be concluded from the feedback that international companies in particular are prepared to stop deliveries to food retailers or are affected by a supply stop.

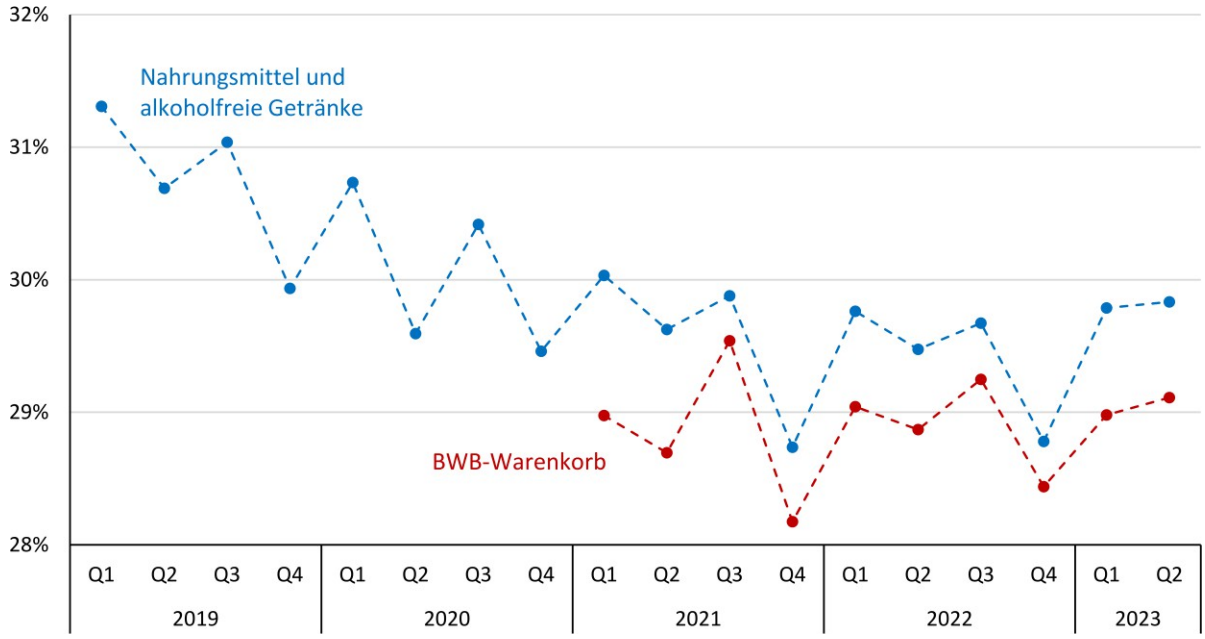
6.3.3. Trading margins

Looking at the development of the gross margin in food retail from the first quarter of 2019 to the second quarter of 2023, Figure 44 shows a slight downward trend from 31% to 30% in the years 2019 to 2020.[96] Since the beginning of 2021, however, it has remained relatively constant and has leveled off between 29% and mostly close to 30%. The development of the retail margin in the BWB basket follows the retail margin described above for all food excluding alcoholic beverages with a slight shift. Overall, however, it is systematically up to one percentage point lower. This may be due to the selection of product groups, which the BWB based on their importance for consumers, among other things. Nevertheless, there is no systematic increase in the retail margin for the BWB basket of goods from 2021 to the first half of 2023**. An increase in the retail margin under the guise of rising and high inflation rates in the years 2021 to 2023 is not possible**.

[96] The trade margin measures the share of the net sales price that remains after deducting the cost price. Mathematically, the margin can be written as follows: $H = (P - C)/P$, where H denotes the trade margin, P the net sales price and C the cost price. A trade margin of 50 percent means, for example, that the net sales price is twice as high as the cost price and therefore 50 percent of the net sales price after deduction of the cost price.
remain at the stand price.

mid-2023 cannot be confirmed for the Austrian food retail sector as a whole and in the BWB basket.

Figure 44: Average retail margin of food retailers including non-alcoholic beverages and in the BWB shopping basket



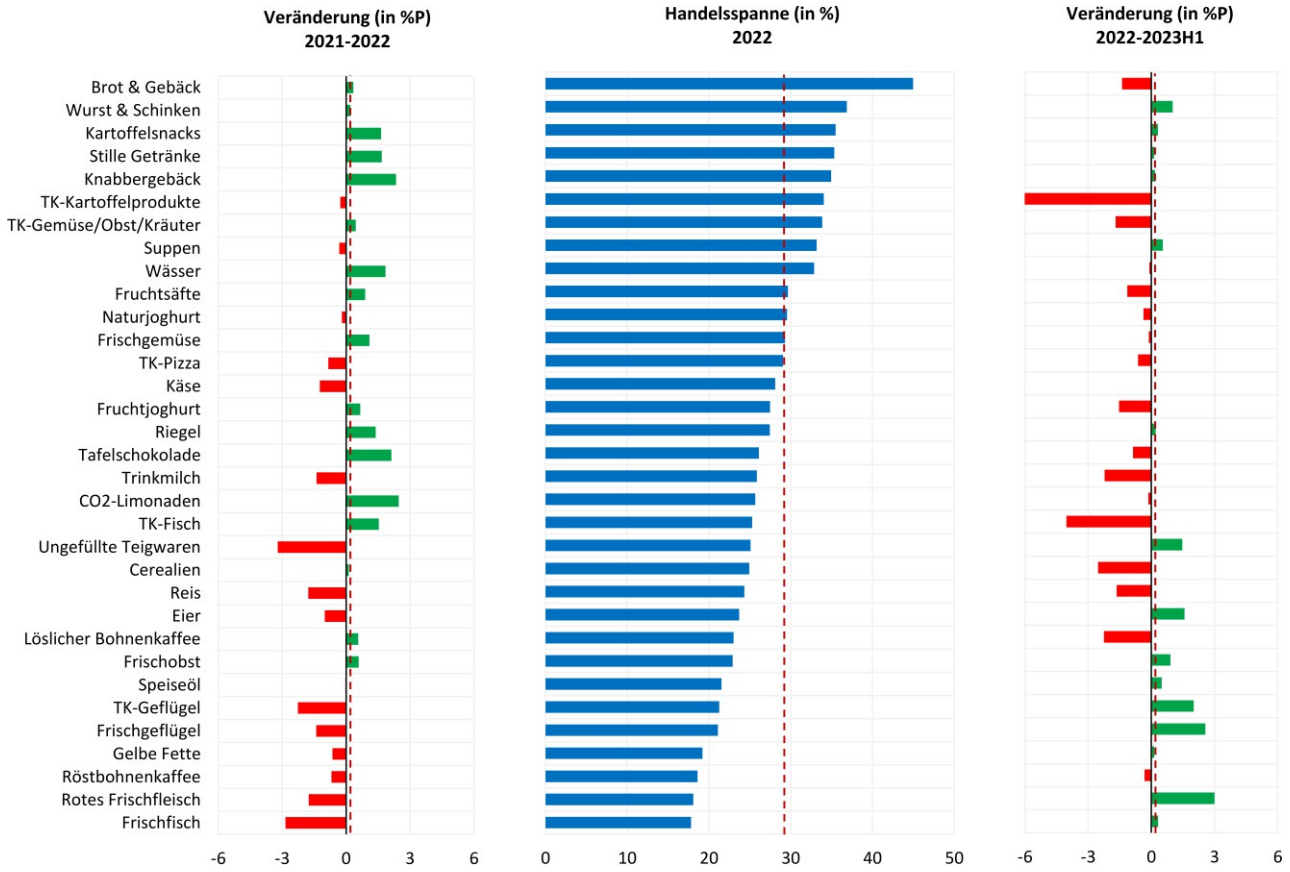
Notes: The calculation is based on data from the Spar Group, Billa, Penny, Hofer, Lidl and MPreis.
Source: Request for information.

The average retail margin of food retailers across all food and non-alcoholic beverages or across the entire BWB basket masks the high degree of heterogeneity between the product groups. The level, change and ranges of the retail margins regularly show large differences, as shown in Figure 45 based on the product groups in the BWB basket. The highest average margins can be found in the bread & pastries product group, although it should be noted that some or most of the goods are delivered and baked frozen in the stores and therefore incur costs that are not included in the cost of goods sold. For this reason, the high average mark-up of 45% is not surprising. There were no significant adjustments to the gross margin in this product category from 2021 to 2022. In the first half of 2023, however, it fell by just over one percentage point. The lowest margins of around 20% are found in fresh meat (incl. poultry), fresh fish, roasted coffee beans and yellow fats. From 2021 to 2022, margins in these product groups all fell by up to almost three percentage points. In the first half of 2023, however, there was an upward correction in some cases. The weighted change for the entire basket of goods between 2021 and 2022 as well as between 2022 and the first half of 2023 is close to zero.[97] Due to the mixed calculation of the trade, trading margins increased over this period (2021 to

[97] It should be emphasized here that the GfK data represent a sample of 4,000 households for 26 product groups with barcodes on the one hand and 2,800 households for fresh product groups on the other.

2023H1) in some product groups (e.g. sausage & ham, potato snacks, non-carbonated beverages and snacks), this was offset by lower margins in other product groups (e.g. frozen potato products, cheese, cereals and fresh fish).[98] Overall, therefore, there was no overall increase in margins.

Figure 45: Trading margin by product group in the BWB basket (2022)



Note: Filled pasta was not included in the chart due to insufficient data. The red dotted lines mark the weighted average in each case: (i) Change 2021-2022: +0.06%P, (ii) Trading range 2022: 28.89%, (iii) Change 2022-2023H1: +0.16%P.

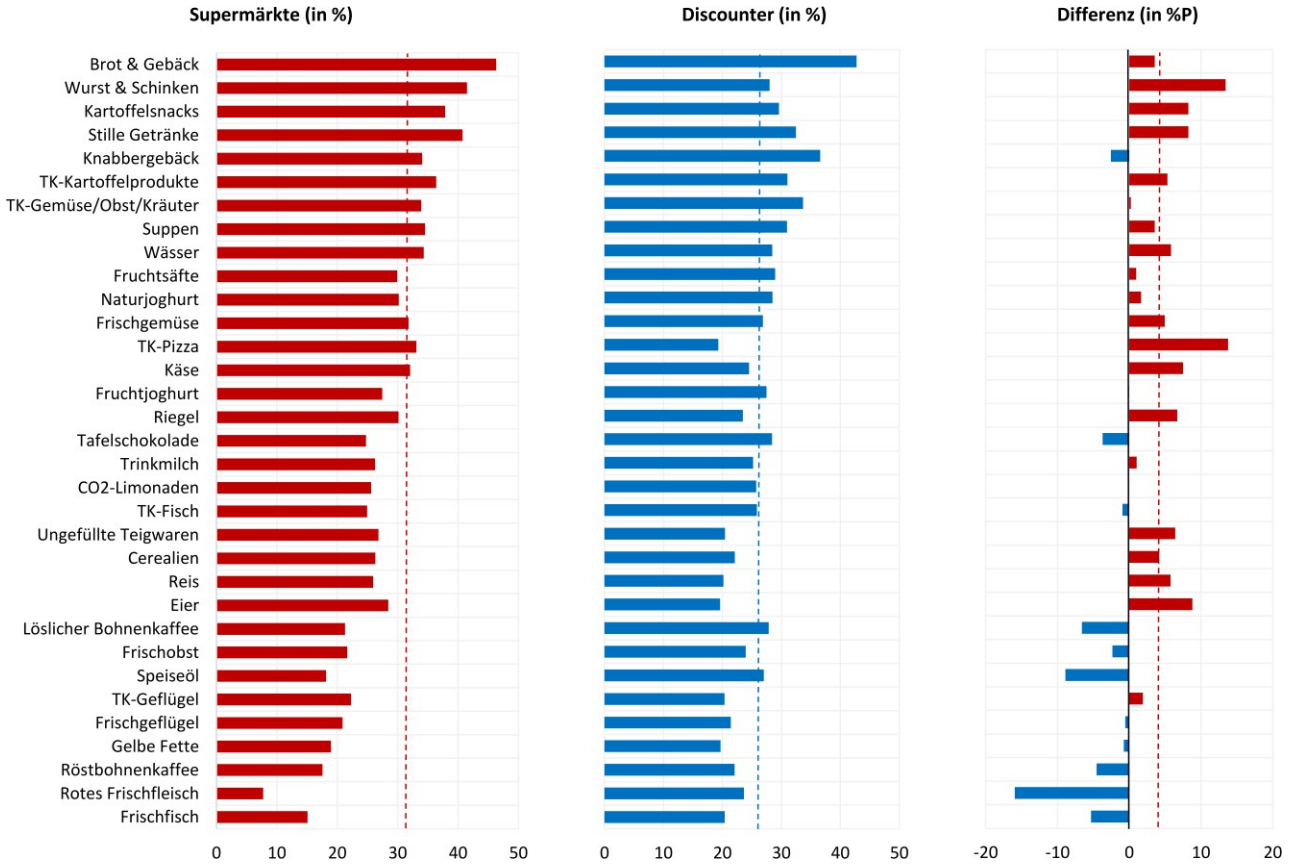
Source: Request for information, own calculations.

When comparing supermarkets with discounters, it is clear that the range of margins is greater for supermarkets (Figure 46). The differences in margins between the product groups are noticeably smaller for discounters, with bread and baked goods an exception for the reasons explained above. If bread and pastries are , the trade margin for discounters ranges from 19.3% for frozen pizzas to 36.6% for snacks. In supermarkets, the retail margin is lowest for fresh red meat at 7.7% and highest for sausage and ham at 41.5% (bread and pastries were ignored). If the product groups are categorized according to the

[98] For a brief explanation of mixed costing, see point 6.2.1.

retail margins, the trend for supermarkets is much steeper than for discounters, which can at least be seen in the right-hand chart in Figure 46.

Figure 46: Retail margins 2022 - supermarkets vs. discounters



Notes: The order follows that in Figure 45. Supermarkets include data from the Spar Group, Billa (incl. Billa Plus) and MPreis. Hofer, Lidl and Penny represent the discounters. The dotted lines mark the weighted average (supermarkets, discounters) or the weighted difference (supermarkets minus discounters): (i) supermarkets: 30.50%, (ii) discounters: 26.64%, (iii) difference: 3.86%P.

Source: Request for information, own calculations.

Over the entire period from 2021 to the first half of 2023, discounters increased their margin on the BWB basket by just under 1.3%, while the supermarkets' margin fell by 0.35% (Table 14).

Table 14: Change in trading margin (in %P)

(in %P)	2021-2022	2022-2023H1	2021-2023H1
Supermarkets	-0,33	-0,02	-0,35
Discounter	+0,79	+0,48	+1,27

Notes: Supermarkets include data from the Spar Group, Billa (incl. Billa Plus) and MPreis. Hofer, Lidl and Penny represent the discounters.

Source: Request for information, own calculations.

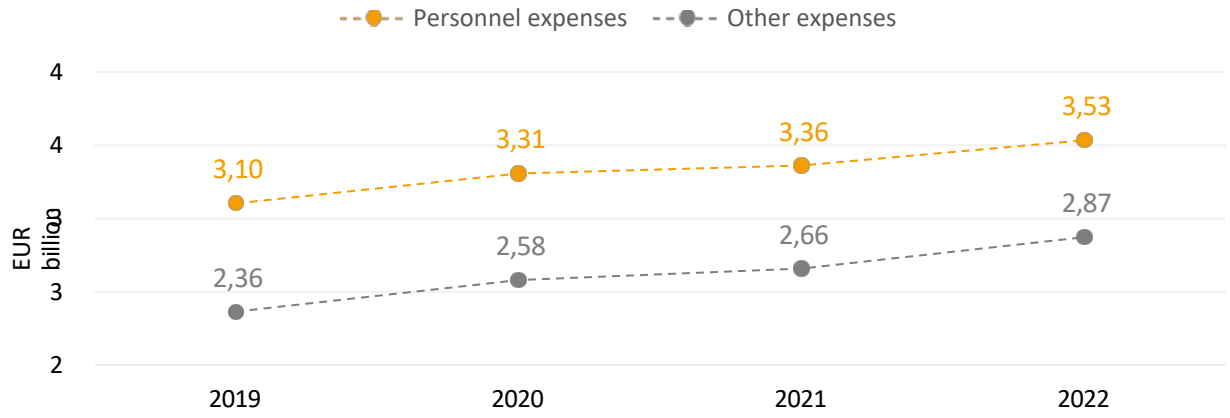
In summary, the analysis of the margins suggests that large differences can be seen within and between the product groups. However, these **do not** provide **any** aggregate **evidence that attempts were made to increase margins against the backdrop of rising and high inflation rates in 2021 and 2022 and in the first half of 2023**. Only discounters increased their margins, but this cannot be explained by competitive problems, but rather by higher fixed costs.

6.3.4. Personnel costs and other expenses

The cost of goods sold is by far the largest expense item for a retail company. In addition, personnel costs and expenses for rent, logistics, energy, marketing, repairs and maintenance are of particular importance. These five expense items, together with a residual item, are subsumed under "other expenses" below.

In 2022, **personnel costs** rose by five percent compared to the previous year, while other expenses increased by just under eight percent (Figure 47). Energy and logistics were the main of the increase in other expenses. While **energy costs** by around 38%, **logistics costs increased** by just over , as Figure 48 shows. There was also an increase of more than seven in other expenses. In absolute terms, energy costs rose the most at more than EUR 70 million.

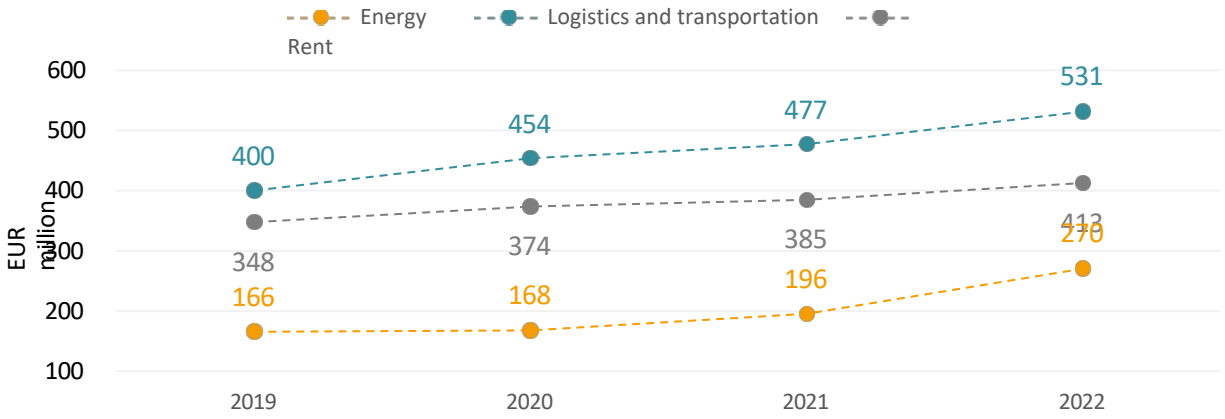
Figure 47: Development of selected expenses



Notes: The calculations are based on data from Spar (Spar, Interspar and Maximarkt), Rewe (Billa and Penny), Hofer, Lidl and MPreis (incl. TM Handels GmbH). Other expenses include rent, logistics, energy, marketing and advertising, repairs and maintenance as well as a residual item.

Source: Request for information.

Figure 48: Selection of other expenses



Notes: The calculations are based on data from Spar (Spar, Interspar and Maximarkt), Rewe (Billa and Penny), Hofer, Lidl and MPreis (incl. TM Handels GmbH).

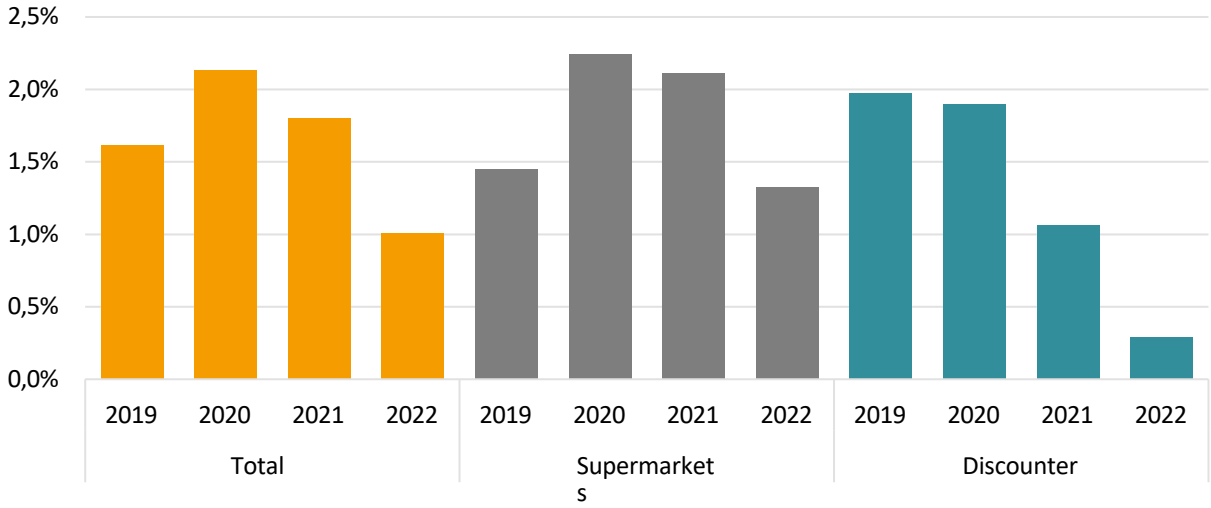
Source: Request for information.

In 2022, net sales at Spar (Spar, Interspar and Maximarkt), Rewe (Billa and Penny), Hofer, Lidl and MPreis (incl. TM Handels GmbH) increased by just under EUR 770 million and therefore by around 3.6 percent. Against the backdrop of constant trade margins and increased personnel, energy, logistics and rental costs, an improvement in the profit margin after deducting all other expenses (e.g. depreciation, interest, etc.) is not to be expected. The following subchapter is dedicated to the development of profit margins in the Austrian food retail sector.

6.3.5. Profit margins

The profit margins (annual earnings/net sales) of Austrian food retailers as a whole, i.e. including the food and non-food segments, declined between 2020 and 2022, as Figure 49 shows. Although the figures shown relate to an average of the largest food retailers in Austria, the individual profit margins also show similar trends in almost all cases. If we look at the after-tax profits in figures for the years 2019 to 2022, the development would be similar to that shown in Figure 50. A decline in the years 2020 to 2022 followed an increase in 2020 compared to the previous year. There is an insignificant deviation in the case of discounters, which had to accept continuous losses in profit margins from 2019 to 2022. These losses were particularly significant in 2021 and 2022. In summary, it can be stated that **Austrian food retail companies did not use the inflationary environment to increase their profits or profit margins in 2021 and 2022**. This applies to both supermarkets and discounters alike.

Figure 49: Average profit margins in food retail (top 5)

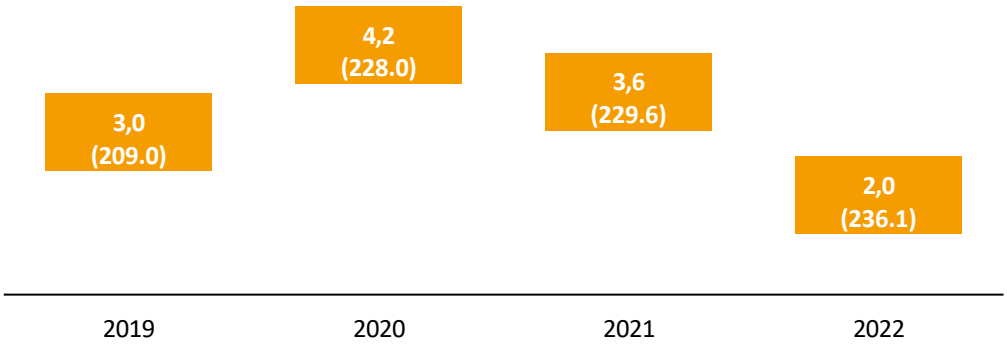


Notes: The calculations are based on data from Spar, Interspar, Maximarkt, Billa (incl. Billa Plus), Penny, Hofer, Lidl and MPreis. The discounters include Hofer, Lidl and Penny, the rest are classified as supermarkets. Earnings after taxes (EAT) was used as the profit figure. The profit margin corresponds to the share of net sales.

Source: Request for information.

If the after-tax profits were redistributed in a hypothetical scenario and divided equally among the entire population of Austria, this would have resulted in a financial benefit per inhabitant of just over EUR 2 per month in 2022. The gains were highest in 2020 and this hypothetical amount would have amounted to around EUR 4.2 per month (Figure 50). Given that around EUR 228 per capita was spent per month in food retail in 2020, compared around EUR 236 in 2022, this hypothetical distribution scenario would have resulted in financial benefits of between 0.9 and 1.9 percent of monthly per capita expenditure, with this share falling by one percentage point from 2019 to 2022.

Figure 50: Profits after taxes in food retail per capita and month (in EUR)



Notes: The average expenditure per inhabitant per month in food retailing is shown in brackets. The after-tax profits and expenditure in food retailing in the respective year were divided by the population figure as at January 1 of the following year.

Source: Requests for information, Statistics Austria, RegioData, own calculation.

Both across Austria and regionally, four to five companies usually dominate the entire market, regardless of market size. Due to economies of scale such as economies of scope and economies of scope, there is naturally a tendency towards greater concentration in all markets. Ellickson (2012) shows in an empirical study that although food retail is usually very concentrated due to high fixed costs, competition is very intense.[99] The average size of the stores increases with the market size, but the number of competitors dominating the market is hardly affected by this. Food retailing in its current form (self-service in hypermarkets and supermarkets) at the provisional end of a development that began the 1960s with the decline of the grocery stores ("Greißlersterben") can be described as a **natural oligopoly**.

6.4. Shrinkflation and ski inflation

Inflation is usually understood by consumers as the purchase of the same quantity and quality at higher costs. However, price increases can also be hidden from consumers in various ways. Here, counteracting transparency helps to protect consumers.

One way for companies to pass on price increases in a hidden manner is "**shrinkflation"**. This involves reducing the portion sizes or filling a smaller quantity for the same (or similar) pack prices, i.e. less quantity for the same money. Another method is "**skim inflation**". This refers to a hidden reduction in quality in production at the same or similar price and quantity, i.e. cheaper ingredients replace high-quality ones. Both are **hidden price increases**, although scimplation is even more difficult to prove than shrinkfla- tion.

In the case of **shrink inflation**, consumers are generally protected by the regulation applicable in Austria, according to which, unless otherwise , not only the sales price but also the price per unit of measurement (**basic price**) must be displayed for goods offered volume, weight, length or area (see Section 10a (1) PrAG). This is intended to make it easier for consumers to compare prices, for example when comparing similar pack sizes. However, in order to notice a hidden price increase due to a filling quantity reduction, consumers would have to remember the previous base price of the "secretly" changed product. At best, the shrunken pack could be noticed by chance when comparing it with the base prices of competitor products that have remained constant. A "before - after" comparison of the affected product on the shelf of the food retailer is naturally not possible, as it can be assumed that the food retailer will not have two different pack sizes of a brand at the same pack price the shelf at the same time. A corresponding product range policy or targeted placement on the shelf by the food retailer can make comparisons possible.

[99] Ellickson (2012): Supermarkets as a Natural Oligopoly, Economic Inquiry 51 (2), 1141-1154.

This it even more difficult to reduce the basic price. The **Association for Consumer Information (VKI)** observes shrinkflation in snacks, sweet products, ready meals and frozen products, dairy and meat products, margarine, etc. [100]

With **scimpflation**, the quality of the product deteriorates and high-quality ingredients are replaced by cheaper ones. For example, cheaper palm oil is instead of expensive rapeseed oil. There has been some debate about fact that certain products now also contain palm oil. In other products, high-quality sunflower oil has apparently been by palm oil. The manufacturers argue that there are shortages of sunflower oil due to the Ukraine crisis. There are alternatives to palm oil, such as domestic rapeseed oil, but these are more expensive. There are also observations for beverages, for example.[101] Skimp- flation is therefore particularly difficult for consumers to understand. On the one hand, consumers regularly do not check the ingredient list of products in detail or are no longer familiar with past recipes as benchmarks. On the other hand, a recipe change does not automatically mean a deterioration aimed at increasing profits.

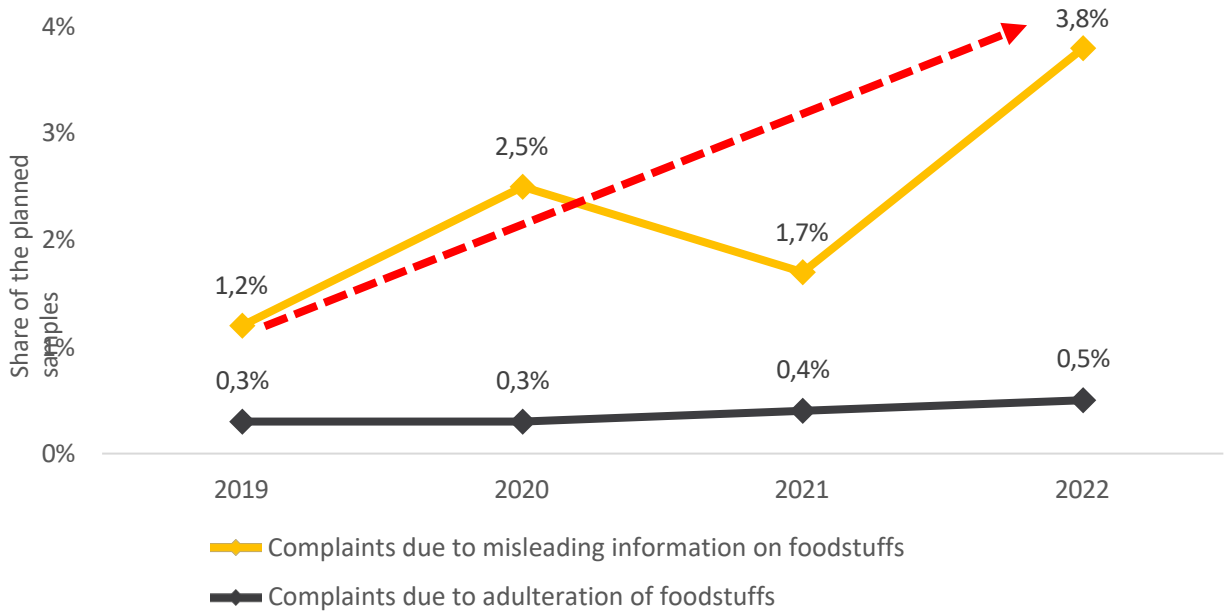
No statements can currently be made on the **quantitative significance of ski inflation** in Austria. At the level of food quality, the 2022 Food Safety Report is the best source information. Figure 51 shows the development of complaints due to misleading food information. This also includes the surrogate regulation. [102] On the other hand, the graph shows complaints due to adulteration of food. Foodstuffs are considered to be adulterated if, for example, value-determining ingredients, the content of which is assumed, have not been added or have not been added sufficiently. It can be seen that complaints due to misleading information have increased significantly since 2019, while the adulteration of food has only increased moderately at a significantly lower level.

[100] Available online at https://konsument.at/shrinkflation

[101] Available online at https://konsument.at/shrinkflation

[102] The appearance, name or pictorial representations of the presence of a particular food or ingredient are suggested when in fact a naturally occurring component or ingredient normally used in that food has been replaced by component or ingredient.

Figure 51: Complaints in examined and assessed plan samples



Source: Food Safety Report 2022.

BWB has no systematic and representative analysis of the **quantitative significance of shrinkflation**. However, the Consumer Panel Services GfK data available to BWB allows at least limited conclusions to be drawn, although no statements can be made at item level. Instead, product bundles were used as an approximation in the analysis. A product bundle comprises all of a supplier's products in a product group that it sells via a food retailer. In order to obtain more distinctions, the product groups were again separated into organic and non-organic. The change in the ratio of *packs sold to volume sold (usually kg or L)* is then calculated for each product bundle compared to the previous quarter. Only observations according to which this ratio has increased, i.e. the ratio of packs to volume has deteriorated for consumers, are used for further analysis.

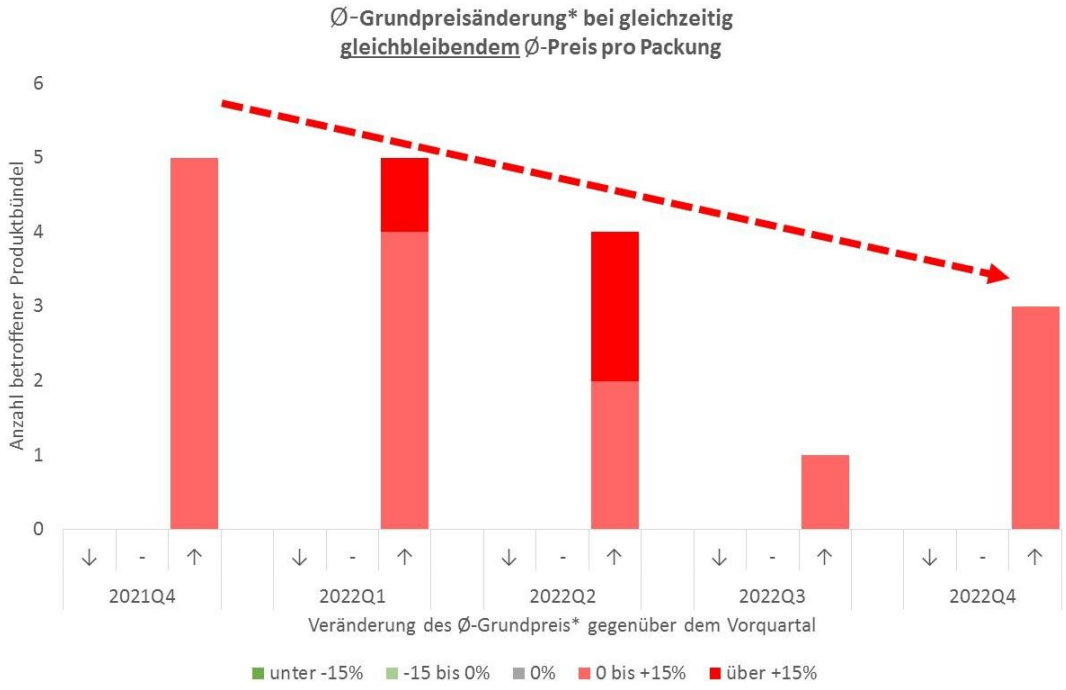
In order to make statements on shrinkflation, the remaining observations (i.e. where the ratio described above has deteriorated) were divided into two groups. Group 1 contains only product bundles (almost) the same average price paid per pack (**average price per pack**) compared to the previous quarter. Group 2 only contains product bundles with a lower average price per pack, i.e. the packs became cheaper for consumers on average. An indicator is used to analyze whether there are signs of shrinkflation for these two pre-selected groups.

The price per unit volume (usually kg or L), which also referred to as **the average base price**, serves as an indicator of shrinkflation. If this falls, consumers have paid less per unit volume; if it rises, they have paid more. Shrinkflation is only suspected in the case of product bundles.

with an increased average base price, even if it cannot be ruled out for the other product bundles. This presentation has limitations, especially in group 2.[103] Nevertheless, this analysis can serve as an indication of whether shrinkflation could be a quantitatively relevant phenomenon at all and whether an investigation by third parties would appear to make sense.

Figure 52 relates to group 1, i.e. a constant average price per pack compared to the previous quarter for product bundles with an increase in the ratio "packs sold/total volume". If the average price per pack remains the same, this is inevitably accompanied by a deterioration in the average base price. In other words, smaller packs were sold for the same pack price, or a smaller volume for the same price - **potential cases of "classic" shrinkflation**. It should be noted that the same product bundle does not show a further increase in the average base price from quarter to quarter. In the period under review, there were 18 such cases. An analysis over time shows that the cases of shrinkflation measured in this way tend to decrease. However, the low frequency of the cases severely limits any conclusions in this direction.

Figure 52: "Classic" shrink inflation as a deterioration in the average base price while the average price per pack remains the same (group 1) and the ratio of "packs sold to total volume (usually kg or L)" increases



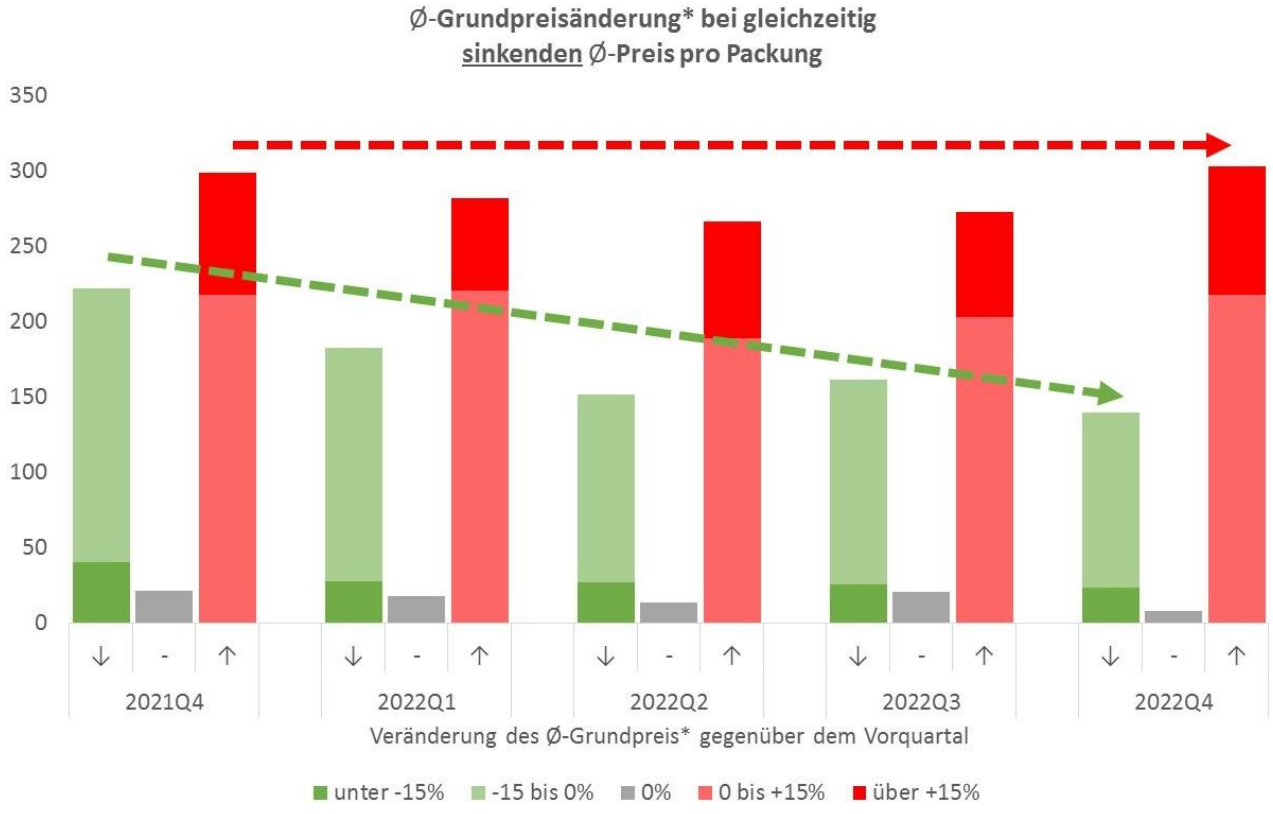
(*) Ø base price to the average price per volume unit of the product bundle.

Source: Consumer Panel Services GfK, own calculations.

[103] For the sake of good order, it should be mentioned that there may also be shifts in demand, while consumers continue to have freedom of choice. A case where there is no change in the price or quantity of the packs,
would be if consumers increasingly opted for smaller packs. In this case, there would also be an increase in the ratio "packs sold to total volume" and the average base price of the product bundle would rise.

Figure 53 concerns group 2, i.e. lower average price per pack compared to the previous quarter for product bundles with an increase in the ratio "packs sold/total volume". Consumers may well perceive a real price reduction here. In some cases, product bundles were also identified where there were reductions in the average base price (marked in green), but these observations decreased in the period between 2021 and Q4 2022. What is striking and much more significant in this group is the observation that hundreds of product bundles an increase in the average base price (marked in red). This number remained largely stable in the quarters observed. This means that although the pack price is falling, suggesting a price reduction, the base price is actually rising - **potential cases of "insidious" shrinkflation**.

Figure 53: "Treacherous" shrink inflation as a deterioration in the average base price with a lower average price per pack (group 2) and an increased ratio of "packs sold to total volume (usually kg or L)"



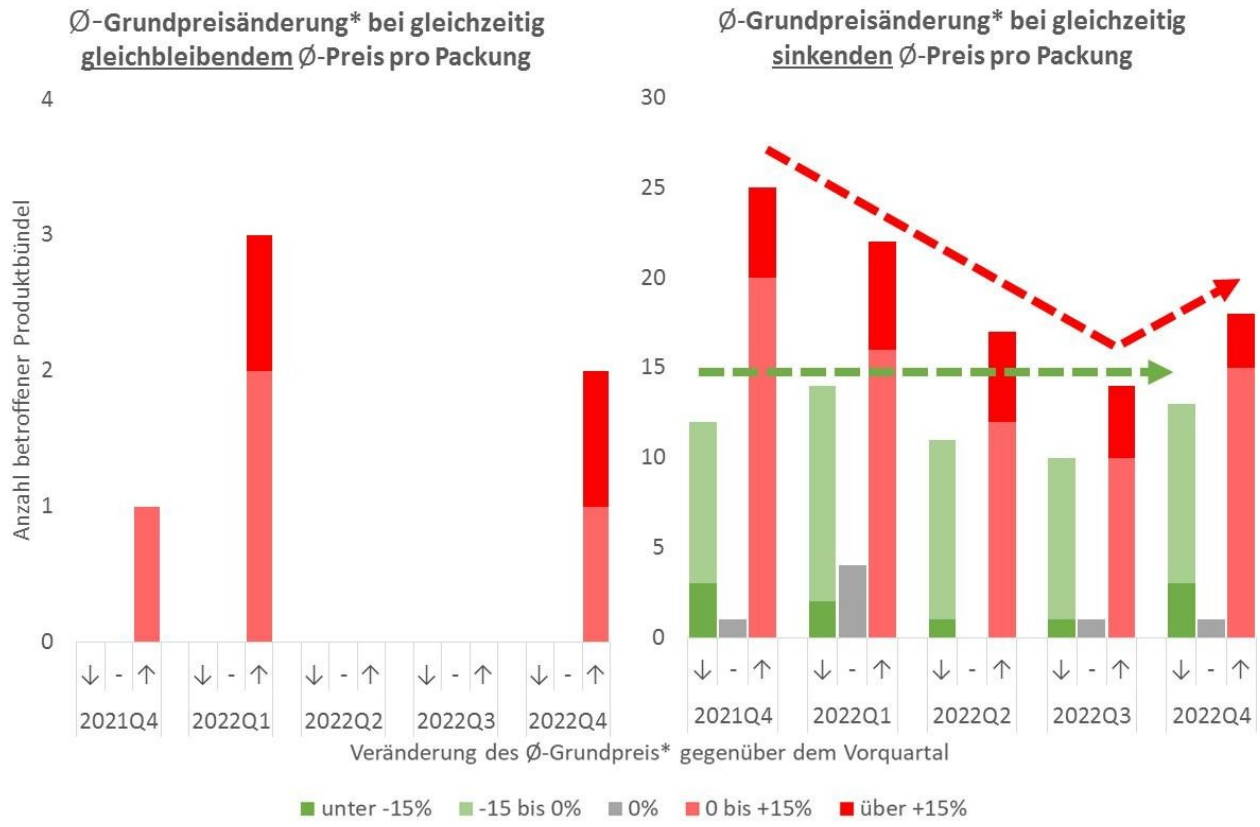
(*) Ø base price to the average price per volume unit of the product bundle.

Source: Consumer Panel Services GfK, own calculations.

In Figure 52 and Figure 53, a total of 1,442 product bundles are affected, which corresponds to around 300 product bundles per month or around 2% of the product bundles in the BWB's reference basket. **Behind each product bundle is a series of articles where shrinkflation may have occurred**. It is therefore quite possible that shrinkflation in food retailing is not an isolated marginal phenomenon, but occurs more frequently in various forms. Closer observation of this development by third parties therefore seems sensible and appropriate.

Shrinkflation can also affect different income groups differently. For example, under point 6.6, anomalies were found for frozen food with regard to the lower income group being more strongly affected by shrink inflation indicators. Figure 54 repeats the previous presentation in Group 1 and Group 2 for frozen food purchased by the lower income group only. It can be seen that there appears to be a negative impact, albeit with a decreasing tendency.

Figure 54: "Classic" and "insidious" shrinkflation in frozen food for the lower income group as a deterioration in the average base price with an increased ratio of "packages sold to total volume (usually kg or L)"



(*) Ø base price to the average price per volume unit of the product bundle.

Source: Consumer Panel Services GfK, own calculations.

From background discussions with consumer advocates, the BWB was informed that **more branded products and fewer private labels are** currently **affected** by the shrink/skimpflation issue. While no food retailer is particularly concerned with cases of shrinkage/skimpflation in the case of own brands, the

/While the branded goods sector has stood out from the rest, there are a number of conspicuous manufacturers.

6.4.1. Cheat packs

Deceptive packaging is also discussed in connection with shrink/skim packaging. This is understood to mean pre-packaging that is misleading in terms of the number, size, volume or weight of the goods it actually contains due to its external presentation.[104] This is a **misleading commercial practice** under Section 2(1)(2) UWG,[105] concerning essential characteristics of the product, against competitors and certain organizations (e.g. VKI) can assert a claim for injunctive relief (Section 14(1) UWG).

The repeal of the explicit legal ban on deceptive packaging as part of the implementation of Directive 2005/29/EC on unfair commercial practices in 2007 has not the assessment of its admissibility. **Deceptive packaging unlawful if the disproportion between the packaging size and the filling quantity likely to mislead market participants**. It is misleading if the average consumer gains an impression of the package contents that does not correspond to the facts and is likely to influence his or her business decision.[106]

6.4.2. Consumer protection

With the **Lebensmittelcheck**[107] **platform,** the VKI offers the opportunity to report cheat packs, for example. The VKI checks the products and then confronts the manufacturers with the complaints. Alternatively, it is also possible to complain directly to the manufacturer.

Figure 55 shows that the percentage of reports on shrinkage/skimpflation in relation to total reports has risen sharply in recent years. In the period from January to October 6, 2023, 120 reports on this topic were received, which is almost as many as in the two previous years combined. Even if these reports are initially assumptions or observations by consumers, it nevertheless shows the strong increase in the importance of this topic in the perception of consumers. In addition to the above calculations up to the 4th quarter of 2022, this may mean that this phenomenon is likely to have increased further in the following year 2023.

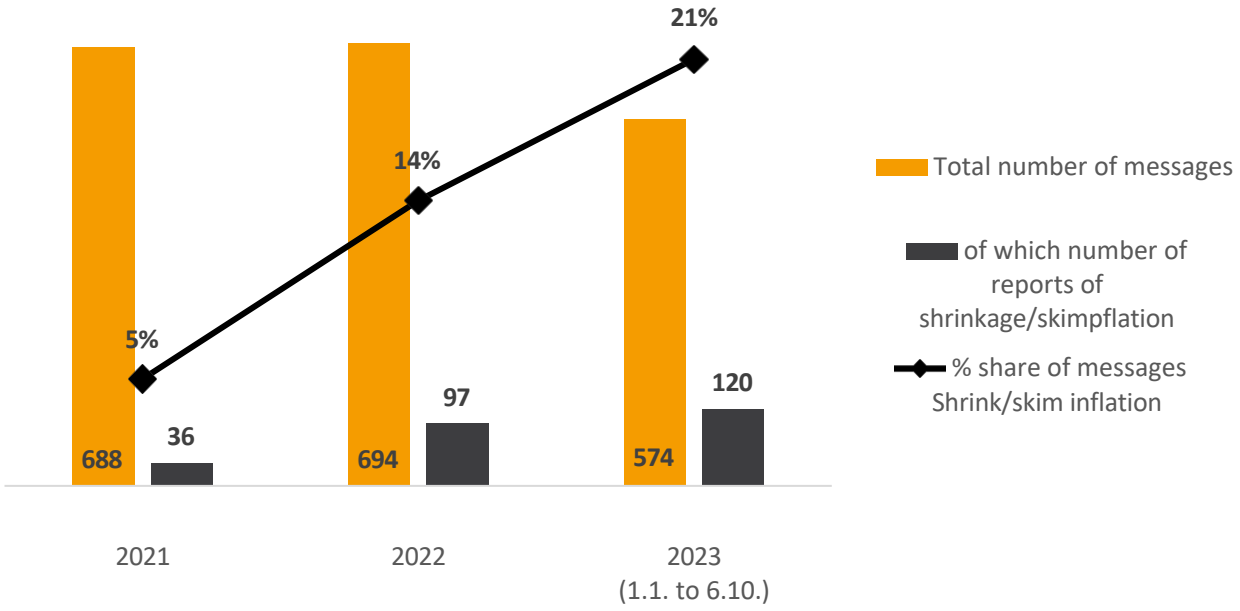
[104] *Anderl/Appl* in *Wiebe/Kodek*, UWG2 § 2 (as of 10.1.2023, rdb.at).

[105] Federal Act against Unfair Competition, Federal Law Gazette No. 448/1984 as amended by Federal Law Gazette I No. 99/2023.

[106] Supreme Court 29.1.2019, 4 Ob 150/18i. *Anderl/Appl* loc. cit.

[107] https://konsument.at/lebensmittel-check

Figure 55: VKI product reports on shrink/skim inflation



Source: VKI, status: 6.10.2023.

The most common arguments put forward by manufacturers for smaller filling quantities are increased prices for raw materials, packaging materials and energy. It is also argued that smaller portions are desired so that less is thrown away, that there are technical reasons (new production facilities) or that the final pricing lies with the retailer. However, it was also noted that the non-binding sales price can be maintained by adjusting the filling quantity. When it comes to sunflower oil, reference is often made to shortages caused by the Ukraine crisis.

In the **BWB consumer survey** of 1,000 people (see point 9.1), consumers were unanimous in their view that food retailers have a duty to address shrinkflation. According to the consumers, the retailer has the task of **actively drawing attention** to changes in quantity. **One**
Consumers would prefer a "simple price increase" for the same quantity in any case.

In September 2023, the **VKI conducted a survey in the KONSUMENT community** on consumer sentiment on the topic of shrinkflation, in which almost 1,400 people took part.[108] The results are the same for the aspects that were also surveyed in the BWB consumer survey.[109] In the VKI survey, 89.0% stated that had noticed in the past year that certain food products now contained less filling quantity, but the unit price was the same.

[108] VKI (5.10.2023): Shrinkflation: Less for the same money. Available at https://konsument.at/shrinkflation

[109] The BWB market survey (see point *9.1*) showed that consumers consider transparency to be particularly important. Undeclared quantity changes are therefore potentially as "deception". Price increases are preferred over quantity reductions. They would prefer a "simple price increase" with the same quantity. The consumers surveyed also unanimously believe that food retailers have a duty to make customers aware of such quantity changes.

remained the same or even increased. Consumers noticed this most frequently in the following food categories: Sweets, salty snacks / nuts, milk / dairy products, cereal products (e.g. muesli, pasta), meat / sausage products, margarine / butter and fresh packaged fruit and vegetables. When consumers notice that filling quantities are reduced and the unit price remains the same, this basically annoys everyone, 81.2% are even extremely annoyed and a large proportion feel "tricked" or "cheated". If consumers generally show understanding for price increases, they prefer the filling quantity to remain the same and the price per pack to increase. If there is nevertheless a reduction in filling quantities, consumers demand clear indications: Firstly, a clear reduction in the size of the pack, secondly, a clear indication of the changed filling quantity on the packaging and thirdly, a clear indication of the changed filling quantity on the price tag.

Not only the manufacturers, who are more directly responsible for allegations of shrinkflation, can seen as responsible here, **but also the food retail trade**. Apart from labeling, the retailer also has sovereignty over the product range and shelf prices and can also intervene to regulate their placement on the shelf. Cases of outdated price labeling, and therefore incorrect basic prices, can be reported via the VKI's Lebensmittelcheck platform or directly to the food retailer. As a rule, the retail chains endeavor to rectify this quickly and also actively request that individual cases of old price labels be reported.

The transparency of reduced filling quantities and deceptive packaging is not only an issue of fair trading law, but also one of **consumer protection**.

The BWB suggests that measures be taken to further increase the transparency of changes to food packaging with regard to the relationship between packaging size and filling quantity. In particular, hidden price increases - caused by a reduction in the filling quantity, for example - should be easily recognizable for consumers.

Beyond these specific aspects, **BWB is** generally **in favor** of efficient consumer protection that is able to react to current developments in terms of both content and institutions. In this context, the discussion process initiated by the Federal Ministry of Social Affairs, Health, Care and Consumer Protection in the report "***Funding concept to ensure the long-term funding of consumer protection organizations, in particular the VKI***"[110] is welcomed.

[110] Report on the resolution of the NR of 14.12.2022 285/E XXVII. GP parlament.gv.at)

6.5. Online food retail

Online grocery retail has been less of a focus to date,[111] but is an area of development for the future. To this end, BWB has carried out an inventory based on external data and detailed feedback from market participants in Austria. Online food retail can be defined as follows:

In a narrower sense, online grocery retail comprises the sale and delivery of groceries by retailers to end customers via online sales. In a broader sense, it also includes the collection of goods ordered and paid for online (usually via a mobile app or website) from a store or pick-up station.

The definition in the broader sense (including collection of goods)[112] will be used for remainder of this report. In its analysis, the BWB focused on those market participants in online food retail that are comparable to full-range retailers. Online retailers that do not offer fresh produce (or only to a very limited extent) and those online retailers that only offer fruit and/or vegetable boxes or so-called *meal-kits* were not included in the study[113].

6.5.1. Market participants

A basic distinction can be made between multi-channel providers and pure players in the online grocery retail market:

Multi-channel providers are companies that offer their groceries both in brick-and-mortar stores and online, while **pure players** are purely online retailers. Stationary food retailers also have the option of **cooperating with a delivery service** that is responsible for delivering the groceries to the retailer's customers. In this case, the retailers do not operate an online food retail business within the meaning of the FAGG.

Of the thirteen retailers surveyed, six market participants multi-channel providers, six companies are pure players and one company does not operate an online shop itself.

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[111] In proceedings B2-83/20 (Kaufland/Real), which concerned the acquisition of locations of the Real sales division by Kaufland in 2020, the Bundeskartellamt took up the relevance of online retailing in the food sector and, due to its minor importance at the time, did not include it in the relevant product market for retailers with a food assortment in its typical composition.

[112] In the survey of online retail market participants, this exact definition of online retail was not explained to the respondents, which is why the inclusion of orders in the retailers' data that (i) were received via the Internet but were only paid for when they were picked up in the store and/or (ii) were received by telephone is based on the subjective perception of the respondents. It can be assumed that only a small proportion of online LEH orders are made in this way and that the findings of the report are not influenced by this.

[113] Online grocery retailers that were not surveyed for this reason: Austrian Supermarket, myproduct.at, HelloFresh, Hausbrot, shöpping.at, Amazon.

LEH, but uses a partner delivery service to provide the service (ordering via the delivery service's website, as well as picking and delivery by the partner).

6.5.1.1. Multi-channel providers: Stationary and online grocery retail

Three of Big Four bricks-and-mortar food retailers in Austria **also** offer **their products online.** Only Lidl does not currently offer the purchase of groceries via a dedicated online platform. Hofer itself does not operate an online LEH either, but has its products by a delivery service company (ROKSH GmbH). Hofer nevertheless falls into the multi-channel provider category, as its products can be purchased by consumers both online and in-store. Other companies that also offer their products online in addition to brick-and-mortar stores are MPREIS and Unimarkt as well as the organic farms Achleitner Biohof and ADAMAH Biohof.

While REWE has been operating online grocery retail since 1999, followed by the family business ADAMAH Biohof in 2001, the other multi-channel providers, with the exception of the discount retailer Hofer, only entered the market in 2015 and 2016. Hofer is the youngest competitor on the market and has only been active in online grocery retail since the end of 2021. The reasons for brick-and-mortar companies to expand their offering to include online grocery were both to attract new customers and to retain customers by providing flexible and permanent ordering options, service enhancements and a growing online presence.

6.5.1.2. Pure player: pure online food retailing

The pure players in online food retail in Austria include Gur- kerl, Delivery Hero (under the name foodora market, formerly mjam market), Alfies, Hausfreund, Sandra Domweber (under the name Bio Power Box) and Markta. Markta recently opened a branch in Vienna. At the time of the survey, however, Markta was still a pure player and is therefore still classified as a pure online retailer in this report. Hausfreund has been active in the online grocery retail market since 1997 and therefore been around even longer than multi-channel provider REWE. In addition to a full range of products, Hausfreund also offers a delivery service for fruit and vegetables under the name Obstkorb, although this is aimed exclusively at the B2B target group. Hausfreund was followed much later Alfies (2015) and the Bio Power Box (2014) as well as Markta (2018). Gurkerl and foodora market only entered the online food retail market after the outbreak of the coronavirus pandemic (2020 and 2021 respectively), which boosted the online food retail market.

Amazon already operates online grocery stores in several countries, including within Europe. Under the name Amazon Fresh, the company is in online grocery retail in several cities in Germany, the UK, Spain, France and Italy. In the UK and the USA, Amazon has even entered the bricks-and-mortar grocery trade and opened cashierless stores where the goods purchased are registered by sensors and the price is then displayed to the customer in the store.

app is automatically debited. There has long been speculation about Amazon's possible entry into the Austrian online grocery retail market. Whether Amazon is actually planning to enter this market in the near future is questionable.

At least a third of market participants in the Austrian online grocery market consider it unlikely that Amazon will enter the market in the near future. Since Amazon is already active in online grocery in some countriesone market participant sees it as a strategic decision by Amazon not to the Austrian market. Three market participants would consider Amazon to be a strong competitor, while two other online retailers see the impact of Amazon on competition as highly dependent on the offer (service level, product range) that Amazon would introduce. Three market participants would not see Amazon as a major competitor due to different factors (differentiated offer, different company size, lack of understanding of the grocery market).

6.5.2. Key Facts

6.5.2.1. Assortment

As grocery retailers compete with each other via shopping baskets (see point 5), the depth and breadth of the product range also plays an important role in online grocery retail. However, compared to brick-and-mortar food retailers, the product range is generally different in online food retail. Of the thirteen online retailers surveyed by BWB on online grocery retail with the help of information requests, three companies (two of which are pure players) state that they do not describe themselves as full-range retailers. For six of the multi-channel providers, the assortment of food excluding alcoholic beverages differs between online grocery and stationary grocery stores. Only at Hofer, where the store picking system is used, does the online range correspond to the stationary range. The share of the companies' total online retail sales attributable to food excluding alcoholic beverages (i.e. also excluding non-food or near-food products) in the years 2019 to 2022 is around 85%. On average, the number of products in the range offered in 2022 was around 3,880 products, with the number varying greatly depending on the provider and ranging from 220 to 9,000 products. For multi-channel providers, the average number of products in the online range in 2022 was 4,175 products, while the number of products in the stationary range was much higher at 6,925 products(114).

In addition to the differences in the number of products offered, there are also differences in the composition of the product range. In the case of **multi-channel providers**, excluding organic farms

[114] Based on the information provided by only 5 of the multi-channel providers surveyed, as two companies were unable to provide an estimate.

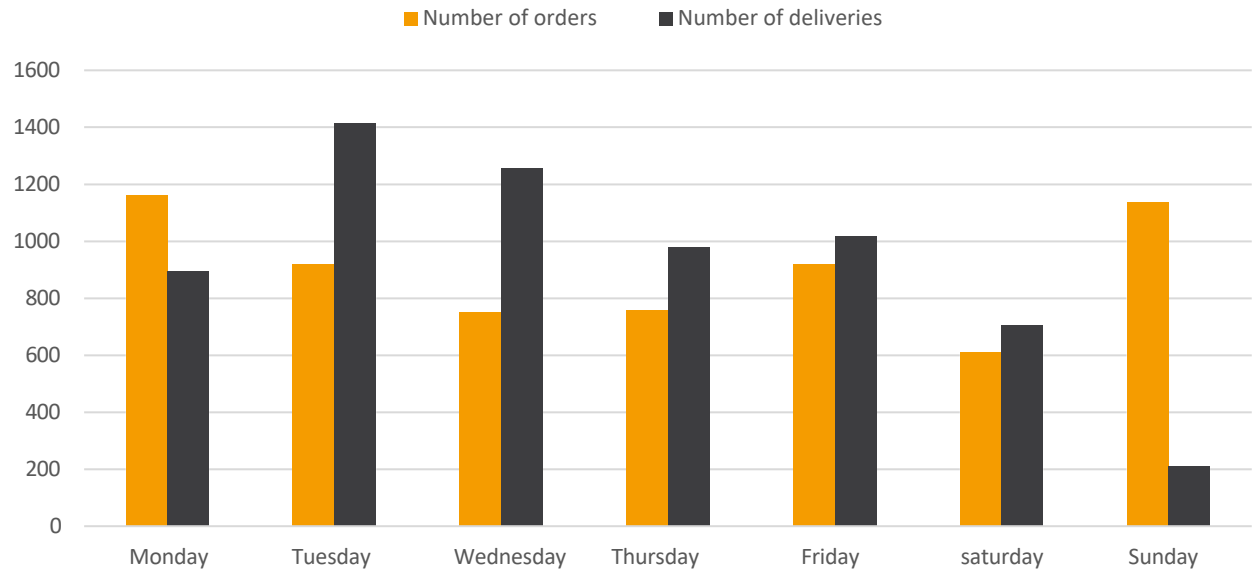
Adamah and Achleitner (because a large part of their product range consists of organic products), the **proportion of organic products** (between 13 and 15%) and the **proportion of private labels** (around 34%) is **roughly the same** in online and brick-and-mortar retail. The proportion of organic products in the entire online food retail sector[115] is much higher at around 27%, although this is due to the fact that there are three organic farms and one farmers' market among all the companies surveyed, which traditionally offer a very high proportion of organic products (70 to 100%). At around 14%, the proportion of private labels in the entire online LEH is much lower than in bricks-and-mortar retail. This can be attributed to the fact that many pure players have a very low (or even no) proportion of own brands in their product range and the proportion of own brands in the bricks-and-mortar retail of multi-channel providers is pushed up by the traditionally high proportion of own brands at discount retailer Hofer. The differences in the share of organic products and own brands in the total product range per sales channel (online or stationary) can therefore be explained by the high share of own brands at discounters and the low share of own brands at pure players, as well as the high share of organic products at organic farms or DIY stores.

In general, according to feedback, consumers often buy **longer-lasting products** from online retailers. The dry goods range is particularly for online sales, while frozen products in particular are a major challenge for online retail and require good logistics (maintaining the cold chain). Bulky, heavy or perishable products are also less suitable for sale via the online channel. Due to the different purchasing behavior of consumers and the difficulties that online food retailers face storing and transporting various products, the online range may well differ from the range in stationary food retail.

[115] Based on information from only 12 of the online food retailers, as one company was unable to provide an estimate.

6.5.2.2. Orders and deliveries

Figure 56: Average orders and deliveries in online LEH per weekday



Source: Request for information.

Figure 56 shows the average number of orders and deliveries of online grocery retailers in Austria per weekday. While the number of orders (orange bars) is highest on Sundays and Mondays with almost 1,200 orders, a large proportion of deliveries (black bars) take place mainly on Tuesdays (more than 1,400) and Wednesdays (more than 1,200). This is also reflected in the feedback from online retailers, who state that orders are placed on average one to two days before delivery. Exceptions to this pattern are online retailers who deliver their goods immediately (especially pure players) and those who only have one or two delivery dates per week, depending on the delivery area. The consumption and shopping behavior of online grocery shoppers differs greatly from that of brick-and-mortar grocery customers. While consumers **in online retail have higher shopping baskets on average and a low shopping frequency**, the opposite is true in brick-and-mortar retail (high shopping frequency, low shopping baskets). All of this suggests that online purchases much more often **planned weekly purchases**, which are usually made on Sundays or Mondays. The respondents describe the purchasing behavior in online grocery stores as, among other things, "no impulse shopping, that "spontaneous purchases [...] are made in stationary grocery stores" and that in online grocery stores "weekly shopping is even more pronounced" or "online grocery purchases [...] are planned purchases".

One online retailer suspects that the planned weekly purchases in the online LEH also due, among other things, to the achievement of a minimum order quantity. According to feedback, the **minimum order value** does not vary by region for any provider and can also be lower if the buyer chooses the option to pick up an order (Click&Collect) instead of having it delivered. The online shops also make a difference when it comes to **delivery fees**.

Merchants **make no regional distinction**, with the exception of one provider who states that the amount of the delivery fee depends on the distance to the delivery location.

The delivery options offered by the online grocery retailers differ in terms of delivery (delivery to the desired address or pick-up), delivery windows, delivery days and delivery times. Six of the online retailers surveyed also offer a pick-up system (Click&Collect) in addition to delivery. Depending on the provider, pick-up takes place either in the store or via other pick-up locations (e.g. pick-up stations). However, the importance of the Click&Collect system is low in terms of total online LEH sales, as only a small proportion of orders are sold via such a system. The delivery windows offered and the times of delivery differ not only from supplier to supplier, but also in part by delivery region, for a given or given supplier. While about a third of online retailers offer instant delivery (delivery between 30 and 120 minutes after receipt of order), other online grocery retailers the choice of a delivery day and, if applicable, a time window (between 1 and 6 hour windows, depending on the provider and the region). Some providers have fixed delivery days for customers, depending on the region to which an order is to be delivered. The most common payment options offered are payment by credit card, direct debit or (SEPA) direct debit, Klarna Sofortüberweisung/SOFORT Überweisung or purchase on account.

6.5.2.3. Ordering process and logistics

Feedback from market participants shows that the ordering process and logistics in online grocery retail vary moderately to greatly depending on the provider. In principle, however, the ordering process begins when an order is placed via a mobile app or via the website of the supplier or a partner company. For the delivery of so-called fruit and/or vegetable crates, standing orders can usually be concluded and delivery takes place on a specific day of the week, whereby the contents of the crate can be planned in advance by the companies. Once an order has been received by the company, the goods are picked and packed. This is where the retailers' procedures differ. While some companies have their own warehouses where the goods stored until they are picked, other retailers pass the order on to suppliers and/or manufacturers after it is received. REWE uses so-called Food Fulfillment Centers (FFC), i.e. automated logistics centers where the goods are stored and picked. Online grocery retailers in Austria usually have between 1 and 5 logistics locations relevant for online LEH, which serve the purpose of storage, picking, packaging and/or delivery.

In the case of multi-channel companies, goods are occasionally also picked in the stores of the stationary retailer. These companies can also the system of a *personal shopper* or store picking. In this case, the retailer does not need a logistics location where the goods are picked, but rather the consumer creates the order.

a shopping list and the personal shopper goes to a designated store where all ordered products purchased, packed and then delivered immediately. If the goods are not available, the picker (= order picker) can the consumer to replace the missing goods with other products or remove them from the order. If necessary, the consumer can also supplement the order and add further products.

Many online food retailers procure their goods directly from the manufacturers, although goods are also procured via wholesalers or suppliers. In the case of organic farms, some of the goods come from their own agriculture/production. In order to ensure efficient procurement of goods, many online food retailers have concluded formalized contracts with at least the most important sources of supply, which are renegotiated annually. However, some retailers also stated that they sometimes work on a basis of trust and that there are no written contracts.

After the goods have picked and packed by either a picker or a supplier, they are prepared for the logistics service and, if necessary, taken to a distribution center, from where the order delivered. The majority of online grocery retailers surveyed exclusively use external delivery services for this. Five companies primarily or exclusively use internal delivery services to deliver their orders. The goods are delivered either via delivery or pick-up (this service is offered by six companies). Depending on the online grocer, the suppliers use different means of transportation for delivery (car, bicycle, motor/electric scooter, etc.).

6.5.3. Meaning

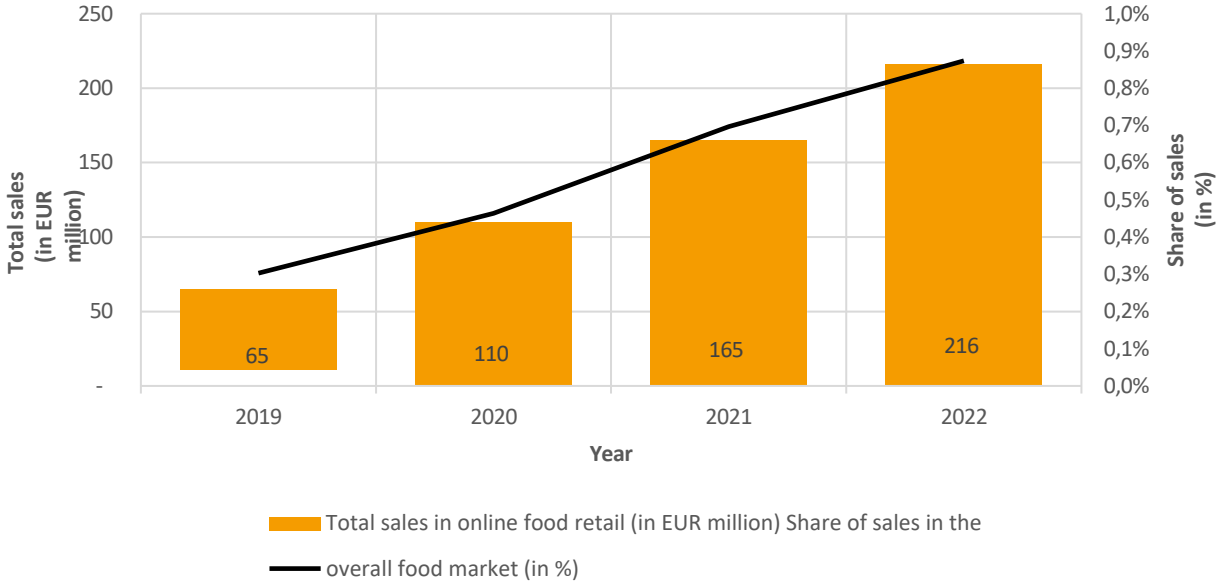
In Austria, the share of online retail sales in relation to total food retail sales has so far **been rather insignificant**. According to the *EU survey on the use of ICT in households and by individuals*, only around 10% of internet users in the EU say they buy groceries or meal kits via online platforms, among other things. Despite an increase from 4.48% in 2020 to 9.02% in 2022, Austria is below the EU average.[116] Inspired by the COVID-19 pandemic, among other things, the structures of online LEH have also been expanded in Austria and there has been an increase in the share of sales in the overall market. It is assumed that **the share of online grocery retail will continue to increase in the future**. [117] The following section will therefore provide insights into the development of online LEH in recent years, specifically the development after the outbreak of the COVID-19 pandemic.

[116] Eurostat

[117] Sector key figure Regiodata 2023

The development of online food retail in Austria to date (since 2019) is presented on the basis of the information provided to BWB by the thirteen market participants surveyed, assuming that these companies reflect the entire online food retail sector in Austria. According to the information provided by these companies, online food retail sales in Austria amounted to around EUR 216 million gross in 2022[118], which corresponds to around **1%** of total food retail sales. BWB also has to external data (Consu- mer Panel Services GfK and RegioData[119]), which show a share of online LEH in total sales of **2.5-3.5%**. The difference in the share given the BWB and the external data can be partly explained by the fact that this analysis only into account companies that can be compared with full-range retailers from the BWB's point of view and therefore did not include the sales of other online food retailers (such as HelloFresh, Amazon, etc.).

Figure 57: Development of online grocery retail in Austria (2019 to 2022)



Source: Request for information.

Figure 57 the development of total online food retail sales and the share of sales in the overall food market in Austria between 2019 and 2022. The left-hand axis (total sales in EUR million) shows a general trend towards increasing sales in online food retail. From 2019 (total sales: EUR 65 million) to 2020 (total sales: EUR 110 million)

[118] Additional information regarding the stated turnover: The turnover figures are based on the turnover of the market participants surveyed. Sales of companies that were active on the market between 2019 and 2022 but since exited are not in these figures. Examples of this are Flink (October 2021 to December 2021) and JOKR (July 2021 to February 2022). In some cases, the companies' gross sales are based on best estimates. Gross sales represent the total value of food ordered including order-related fees.

[119] The figure of 3.5% given by RegioData (source: industry indicator Regiodata 2023) includes the sales of domestic and foreign online stores of companies that sell their products exclusively online as well as the online LEH sales of multi-channel companies that also operate bricks-and-mortar retail.

there was an increase in sales of almost 70%. From 2020 to 2021 (total sales: EUR 165 million), an increase in online LEH sales of 50% was recorded, while the increase in 2022 (total sales: EUR 216 million) as much as 30%. At the same time, the right axis (share of sales in %) shows the development of the share of online LEH in relation to total food retail sales, the increasing importance of online retail. While the share of online food retail in Austria amounted to 0.3% 2019, it will already be almost 1% in 2022.

Market participants in Austria explain this development by a general trend towards online shopping, which has increased significantly in recent years and has also spread to the food sector. This trend was accelerated in 2020 by the **COVID-19 pandemic**. Despite increased demand in online LEH during the pandemic, sales at some companies did not grow as strongly as expected, as demand could not be met in some cases due to logistics not being fully developed. During the pandemic, there was a change in consumer purchasing behavior, which reflected in the ordering of differentiated shopping baskets (e.g. increased demand for frozen products). It was difficult for some market participants to adjust their product ranges at short notice and some new customers stopped buying. Many companies a moderate to sharp decline in sales again after the pandemic, and for most companies that continued to record an increase in sales, these increases declined again by 2022.

Market participants also generally rate the current importance of online grocery retail for consumers as moderate but growing, with most companies estimating a total market volume of between EUR 200 and 250 million. The importance of online retail for multi-channel providers, measured in terms of their total turnover, differs depending on the type of company. For traditional stationary food retail companies, online retail (including orders that are picked up, e.g. via a click & collect system) usually only accounts for a very small proportion (between [0-5]%) of the company's total Austrian turnover. However, online food retail plays a comparatively important role for organic farms. A large proportion of turnover is attributable to this sales channel. The share of online retail in the companies' total turnover generally changed only slightly between 2019 and 2022, although some companies have seen a moderate increase in the share of online retail since 2020.

Suppliers face a number of **challenges** in online grocery retail that can limit the importance and development of online grocery unless they are overcome. Although the challenges vary greatly depending on the logistics concept and type of company, maintaining a continuous cold chain and providing sufficient cold storage space is one of the biggest hurdles for almost all companies. The temperature specifications must be adhered to at all stages of logistics (storage, order picking, provision

in the logistics center or store, delivery). If the companies deliver orders immediately, this challenge is less serious according to one response. Other difficulties are also more significant for companies that have chosen the logistics concept of store picking (personal buyer) (e.g. missing items during picking by the picker). The correct transportation and storage as well as the appropriate packaging of food further complicate efficient online food retailing. In addition to maintaining the cold chain, the transportation and storage of perishable (e.g. highly perishable, untreated organic foods) or space-consuming and heavy foods (e.g. drinks) is an additional difficulty. Planning a suitable delivery date (delivery time, location of goods storage) and delivery routes can also pose a challenge. One response also mentions the difficulty of finding reliable delivery services to work with. Last but not least, good communication with customers also plays an important and time-consuming role, depending on the company (information about the delivery time, dealing with missing goods, complaints, returns and exchanges).

In summary, the low share of online retail in the overall food market can be explained primarily by the product characteristics of food (perishability),[120] which present suppliers with increased difficulties in transporting and storing goods, as well as other logistical challenges of online food retail (delivery planning, customer communication, etc.). Despite these challenges, the increasing importance of online food retail in Austria, which appears to be continuing even after the COVID-19 pandemic, is illustrated by Figure 57 and the statements made by online retailers. The possible future development of the market and its potential will therefore be presented below.

6.5.4. Potential

Of the thirteen online grocery retailers surveyed, seven companies stated that they expect a slight to moderate increase online grocery sales over the next five years. Two companies even anticipate an increase in turnover to EUR 1 billion or more. Eight companies also that they consider **the importance of online LEH** for the end consumer to **increasing** or high over the next five years. The reasons for this can be summarized as follows:

- Increase in consumers' online affinity and changes in consumer habits (trend towards online shopping);
- Improved offering by online grocery retailers (personalized offers, expanded range, better availability);
- Improved technologies that will make online grocery shopping easier;

[120] Sector key figure Regiodata 2023

- Improved logistics and delivery infrastructure; and
- Convenience of online grocery shopping compared to in-store grocery shopping, for which consumers will be more willing to pay.

Four providers the importance for end consumers in the near future (five years) as remaining the same or increasing less or as low to moderate. The reasons given can be summarized as follows:

- Online LEH forms a niche that will complement brick-and-mortar retail, but cannot replace it;
- Due to the slowdown in the growth of online LEH, providers will reduce their range of services and thus make online LEH less attractive for end consumers;
- Consumers continue to prefer personal shopping.

Although ten of the online grocery retailers surveyed estimate that the share of online LEH in total Austrian food sales will increase,[121] the estimated amount of the increase differs significantly. On average, an increase of 3 percentage points (from 2% in 2023 to 5% in 2028) is stated.[122] The highest increase (in percentage points) is expected by an online retailer the online share to increase from 3% in 2023 to 15% in 2028. The lowest expected increase, on the other hand, is less than one percentage point (estimated share 2023: >1%, estimated share 2028: >1%).

The potential of online LEH is to be **exploited** through certain innovations and business concepts. These include, among others:

- The expansion of Click&Collect systems;
- Improvement of delivery and logistics solutions, e.g. cost reduction of the "last mile. *Last Mile*, the final step in distribution) and automation of the warehouse process;
- Product range extensions;
- Geographical expansion (expansion of the delivery area);
- Transformation from pure players to multi-channel providers:in.[123]

[121]One company estimates that turnover will remain the same, two companies have not provided any estimates.

[122] The estimates of two companies were not in this calculation, as they significantly overestimated the share of online trading in 2023 at over 12% and would therefore have significantly distorted the calculation due to the small number of market participants.

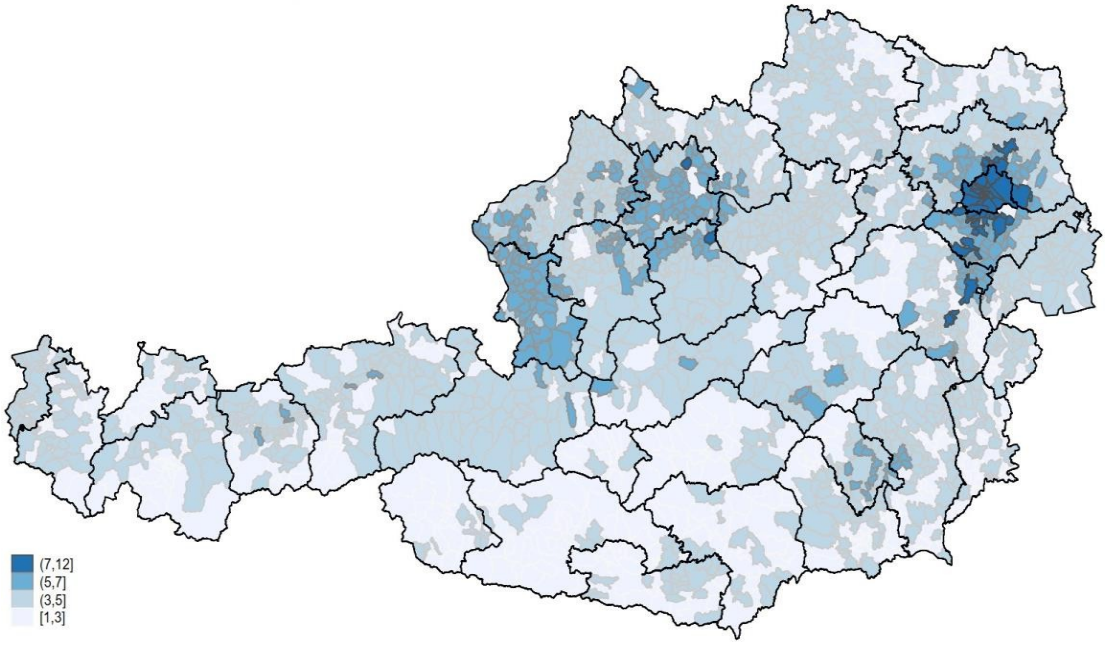
[123] Markta, an original pure player, opened a store in Vienna in summer 2023 and is now also active in stationary retail.

6.5.5. Competitive environment

6.5.5.1. Competitors' delivery areas

The intensity competition in a market is shown, among other things, by the number of competitors in this market. Figure 58 reflects the number of online grocery retailers to consumers per municipality[124] and per NUTS3 region[125] in Austria in 2022. The NUTS3 regions are outlined in black on the chart, while the municipalities are outlined in gray/white. The delivery areas[126] of the thirteen online grocery retailers surveyed by BWB in its request for information on online LEH in April 2023 form the basis for the illustration. The darker a municipality is colored, the higher the number of online grocery retailers that this municipality in their delivery area.

Figure 58: Number of online grocery retailers per municipality and NUTS3 region in 2022



Source: Request for information.

The number of suppliers available to consumers per municipality varies between two and twelve. **All municipalities in Austria are covered by at least two online grocery retailers in the delivery area,** while at the same time no municipality is completely covered by all the **online grocery retailers** surveyed**.**

[124] Only Vienna is reflected at district/postal code level.

[125] NUTS stands for "Nomenclature des unités territoriales statistiques". The NUTS classification provides a systematic and hierarchical breakdown of territorial units for statistical purposes. At the NUTS3 level, Austria divided into 35 units by combining several municipalities. Source: Gemeindeverzeichnis_Stand_1.1.2019.pdf (statistik.at) [126] Some companies did not specify the entire delivery area, but only listed the zip codes to which deliveries actually made. Zip codes that lie within a company's delivery area but to which no deliveries were made in 2022 are not included in the chart.

companies are supplied. Vienna is (at least partially) supplied by twelve of the companies surveyed; only MPreis does not deliver to Vienna. Consumers in Vienna are therefore faced with the largest selection of online grocery retailers.

Figure 58 indicates that competition in online grocery retail in Austria is highly concentrated in the most populous cities and their surroundings. The highest number of competitors, and therefore probably also a high level of competition, can be observed in Vienna and the surrounding area (northern part of the Vienna environs, southern part of the Vienna environs), Salzburg and the surrounding area and Linz-Wels. In these NUTS3 regions, the majority of municipalities are completely covered by at least 6 suppliers in the delivery area. Only in the NUTS3 region of Graz are there relatively few suppliers to demander in relation to the number of inhabitants. Nevertheless, there are also some municipalities in Graz that are supplied by at least 6 of the online providers surveyed. A rather small number of online grocery suppliers can be found in the south of Austria and partly in the west.

The reasons for the geographical focus on large cities and the surrounding area are, in particular, higher demand in urban areas due to the high number of inhabitants, as well as a young and internet-savvy population with a trend towards online shopping. In addition, distribution logistics in rural areas is characterized by a cost-intensive last mile, i.e. the last step of distribution (delivery to the 's doorstep by delivery person), as well as the generally less well-developed distribution networks.

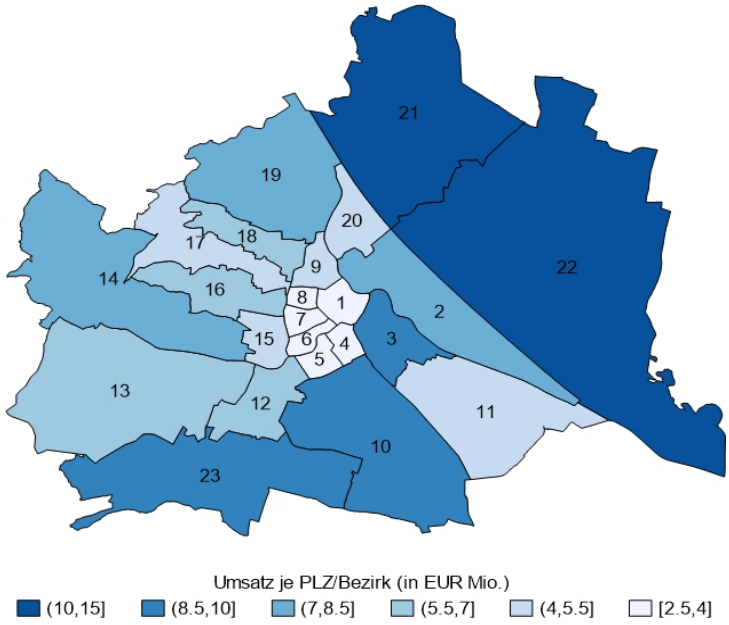
6.5.5.2. Focus: Vienna

Vienna is the federal state with the highest turnover for most of the online grocery retailers surveyed. Nine of the thirteen companies surveyed generated over 50% of their online sales in Vienna in 2022. The federal state of Vienna is also, at least partially, included in the delivery area of all companies surveyed, with the exception of one company. Of the EUR 216 million turnover in online food retail, around 67% (equivalent to EUR 144 million) is generated in Vienna, i.e. **almost 7 in 10 euros**. While the share of online LEH in the overall grocery retail market is around 1% across Austria, based on the information provided by the market participants surveyed, the **share of online LEH in Vienna is** significantly higher **at around 3%**[127]. Online grocery retailers generally appear to be heavily concentrated in the Vienna region and, according to feedback, the province (and surrounding area) forms the core area of most retailers.

[127] Based on the turnover figures submitted to the BWB in a request for information, the total net turnover of food retailers in Vienna was calculated at around EUR 4.18 billion for the entire product range. A flat rate of 13% VAT was added to the turnover of the entire product range excluding alcoholic beverages (the flat rate mark-up of 13% is based on the estimate of a competitor). A flat rate of 20% VAT was added to the turnover generated with alcoholic beverages. This gives an estimated gross turnover of EUR 4.78 billion for the entire food retail sector in Vienna.

This can also be seen in Figure 58, which shows that the number of providers to consumers in Vienna is significantly higher than in other regions. For this reason, this section focuses on the market for online grocery retail in Vienna. Figure 59 and Figure 60 reflect how sales[128] in online grocery retail in Vienna are across the districts/postcodes. Figure 59 sales in absolute figures, while Figure 60 shows sales per 10,000 inhabitants in order to take into account the size of the districts.

Figure 59: Turnover per postcode/district in Vienna in 2022

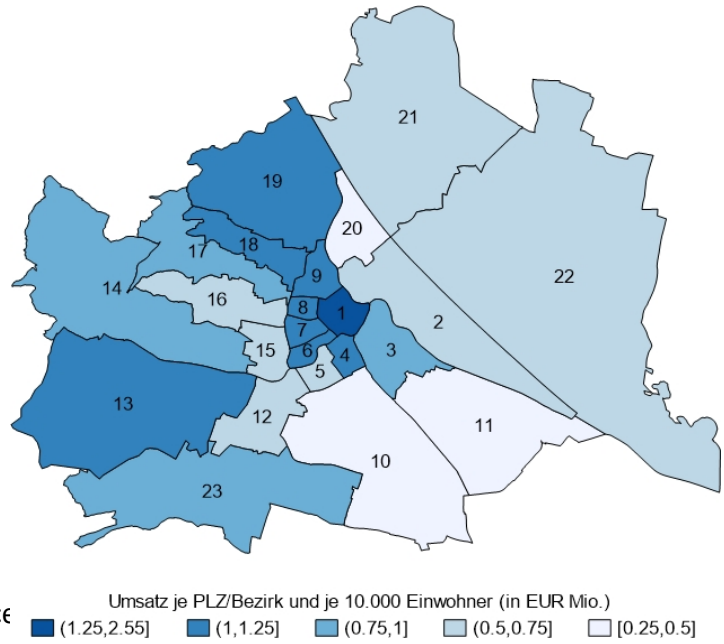


The adjacent chart shows that the highest turnover is generated in districts 21 and 22 (between EUR 10 and 15 million), while sales in the smaller districts (especially in districts 1 and 4 to 9) are much lower at EUR 2.5 to 4 million.

Source: Request for information.

[128] Includes the sales of twelve of the online grocery retailers surveyed, whereby MPreis does not supply Vienna. The sales were requested from the providers by zip code and in some cases represent well-founded estimates. One online retailer was unable to provide either the actual sales per zip code or the best possible estimates and is therefore not included in the following two charts.

Figure 60: Turnover per postcode/district and per 10,000 inhabitants in Vienna in 2022



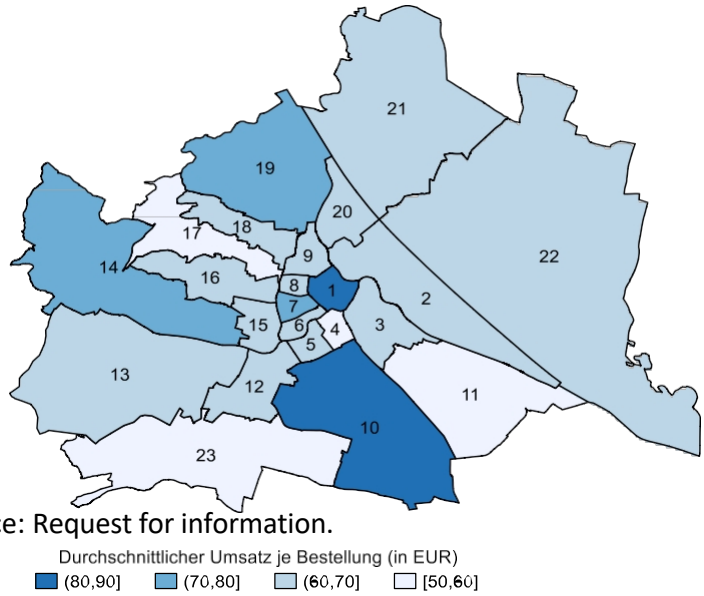
Source

This figure shows the turnover in the districts per 10,000 inhabitants and shows that higher turnover per 10,000 inhabitants is generated by online grocery retailers in the inner districts (especially in districts 1 and 4, and 6 to 9) than in districts 22 and 23, although these districts had the highest turnover in absolute terms (see Figure 59).

As can be in Figure 59, the districts with the highest turnover are primarily the outer districts. However, if the size and population figures of the districts are taken into account, a different picture of the geographical distribution emerges. This coincides (at least in part) with the average net income in Vienna. Those districts in which the turnover of online LEH per 10,000 inhabitants is particularly high also appear to be those districts in which the average annual income (net) per employee is high. This applies, among others, to districts 1 (average net income EUR 36,561), 4, 7, 8, 13, 18 and 19 (average net income between EUR 27,222 and 31,457).[129] This suggests that residents of richer districts order more and/or more often (= higher turnover per 10,000 inhabitants) from online retailers on average.

[129] Source: Average net income in Vienna (as of 2020), published by the City of Vienna at: Statistical district data of the Viennese districts from A to Z - "Vienna in figures" series

Figure 61: Sales per order and per zip code in Vienna in 2022



Source: Request for information.

Figure 61 shows the average turnover[130] of online retailers per order, i.e. essentially the order value. The average order value of an order in Vienna is around EUR 67. Districts 1 and 10 have the highest average order value, namely between EUR 81 and 90, while the average order value in most districts is between EUR 61 and 80.

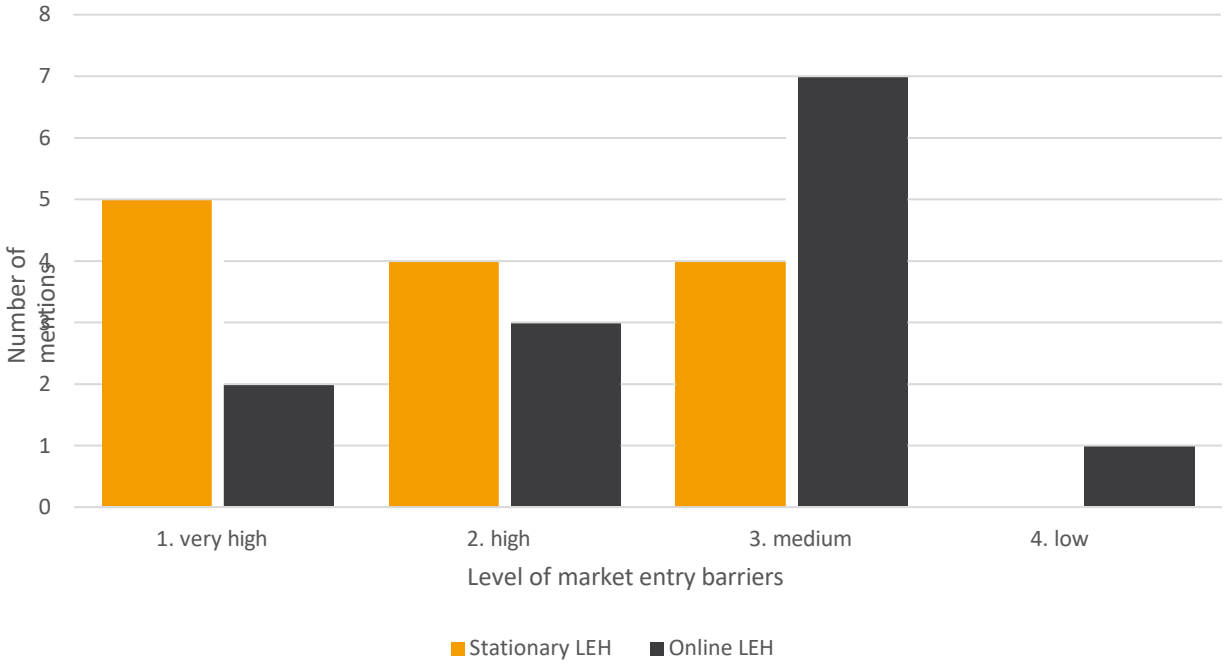
The average order value is thus relatively high in all districts (between 50 and 90), which underpins the statements from point 6.5.2, which explains that online purchases are often planned weekly purchases with larger shopping baskets and a low purchase frequency and that this may also be due to the achievement of a minimum order quantity.

6.5.5.3. Barriers to market entry

The market participants surveyed provided an assessment of the level of market entry barriers in online retail and brick-and-mortar retail. The comparative assessment is in Figure 62.

[130] The average revenue per order in Vienna in 2022 is based on the information provided by 10 of the 12 companies operating in Vienna. Two online retailers were unable to provide the actual number of orders per zip code or best estimates and are therefore not included in the chart.

Figure 62: Estimated level of market entry barriers



Source: Request for information.

The **market entry barriers** in online retail are rated as medium by the majority of providers, while those in brick-and-mortar retail are rated as very high by five providers and high by four others. Only two online retailers the barriers to market entry in online retail as very high. Market entry into online grocery retail therefore appears to be rather easy compared to brick-and-mortar grocery retail.

Nevertheless, some market entry barriers were also listed for online LEH. The most important market entry barriers that a potential market participant faces can be summarized as follows:

- Investment costs for market entry, especially for logistics and supply chain:
  - Warehouses and/or distribution centers;
  - IT & EDP (platform/online shop/APP, payment processing, merchandise management system);
  - cold chain system;
- High running costs (especially last mile costs);
- High purchase prices for small and/or new suppliers;
- Availability of partner companies for the procurement of goods.

The availability of potential partner companies to procure goods is rated differently as a barrier to market entry. When asked, three suppliers state that the availability of partner companies is not seen as a market entry barrier and that other challenges are not seen as a market entry barrier.

The requirements, such as setting up an efficient logistics concept and obtaining good purchase prices, represent significantly higher barriers to market entry. Two suppliers state that the purchasing conditions for new suppliers are significantly worse than for large retailers and that large multi-channel suppliers have corresponding advantages, as prices are strongly dependent on sales volume (this mainly applies to international brand manufacturers). Another supplier emphasizes the easing of this entry barrier for multi-channel suppliers, who can use synergies from brick-and-mortar retail (existing store, supplier and logistics networks) to facilitate market entry. According to one online retailer, market entry can also take place through partnerships with established, especially brick-and-mortar, food retailers, in which case the barriers to market entry are very low.

Five suppliers classify the availability of partner companies for the procurement of goods as a barrier to market entry, with one supplier stating that the dimension depends the scope of goods procurement and whether suppliers have their own distribution centers and warehouses. In the case where own warehouses and distribution centers are available, the availability of partner companies would not be classified as a market entry barrier, according to this company. Another company also emphasizes that the difficulty of suitable partner companies to procure goods decreases significantly with the establishment of a higher market presence and better networks, and that there is sometimes even a surplus of potential partners.

In summary, it can be said that the barriers to market entry in online retail are lower than in bricks-and-mortar food retail. Nevertheless, the high investment costs, running costs and purchase prices are the main barriers to market entry. Multi-channel providers seem to have an easier time entering the market in some cases, as synergies from brick-and-mortar retail can be used and a certain company size and sales volume are given, which can lead to lower purchase prices.

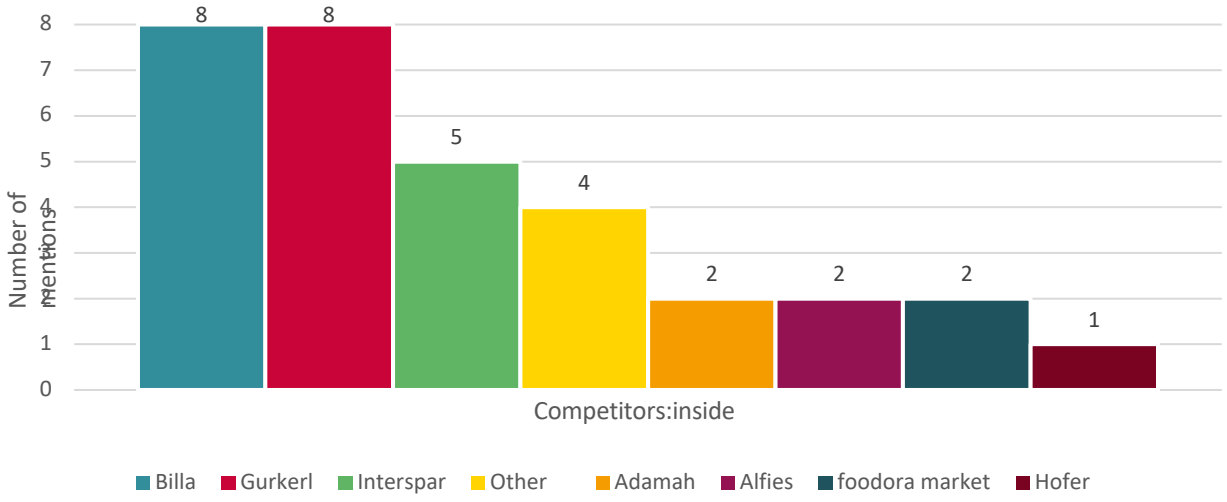
6.5.5.4. Intensity of competition

Around a third of market participants perceive the competition in online grocery retail as intense due to the number of market participants. Two of the companies describe the competition as "strong" or "huge" in their perception, while two other companies emphasize the high number of market participants in online food retail in Austria. However, the intensity of competition varies greatly depending on the region. As can be seen in the previous sections, Vienna (and the surrounding area) is the core area for many providers. Due to the recent market entries of providers that focus heavily on Vienna (e.g. Hofer and foodora market, both in 2021), an increased intensity of competition is observed, especially in Vienna. The introduction of online food retailing and the **market entry of pure online retailers**

However, according to the brick-and-mortar food retail companies[131] in Austria, **online retail has had little to no impact on competition in the food retail sector**. Four of the food retail companies surveyed stated that the influence of online retail on competition in the food retail sector (due to its low market volume) is currently still insignificant. The reasons cited are the challenges in online LEH already explained (e.g. perishability of food), which make it difficult to efficiently exploit the market potential. Even though the COVID-19 pandemic has led to an upswing in online retail, which, according to one food retail company, has led to increased competition in the food trade, market consolidation is now being observed.

In the request for information sent by BWB to online food retail market participants in April 2023, companies were asked to name their five closest competitors and then rate how close or how close they perceive this company to be ("very close", "rather close", "partly", "less close" or "not close"), both in Vienna and in Austria. The mentions of competitors as "very close" and "rather close" are reflected in Figure 63 (in Vienna) and Figure 64 (in Austria).

Figure 63: Number of mentions as "very close/very close" or "rather close/very close" competitors in Vienna



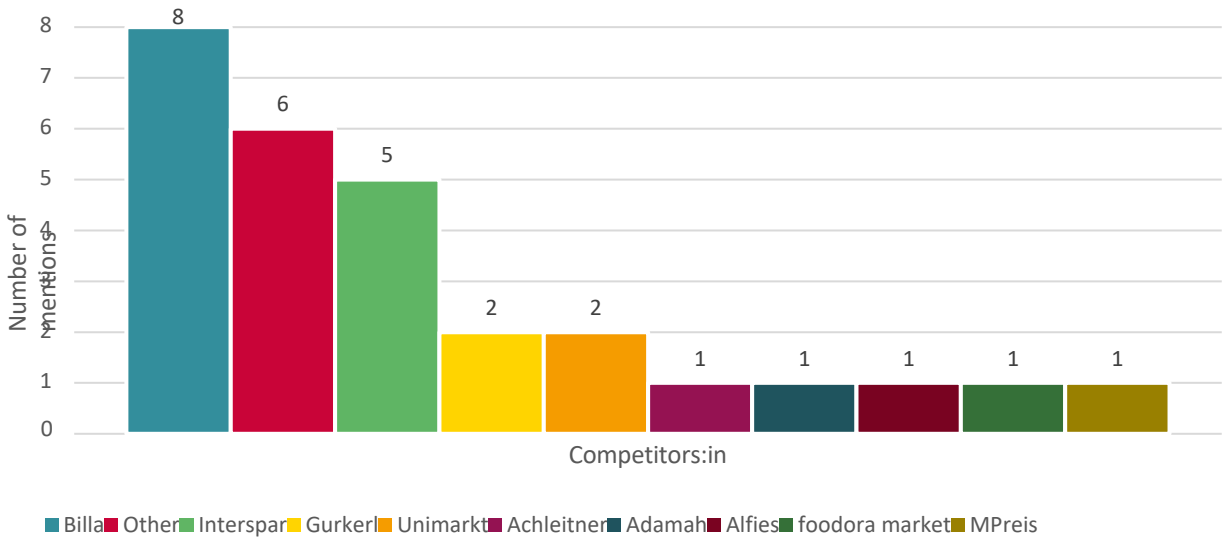
Source: Request for information.

In Vienna, **Billa and Gurkerl** are most often perceived **as the closest competitors** by the other market participants, with 8 mentions each, **followed by Interspar** with 5 mentions. The remaining online retailers were rarely classified as "very close/very close" or "rather close/very close" competitors by the market participants surveyed, with less than 2 mentions. "Other"[132] includes online retailers that were not surveyed by the BWB.

[131] Stationary food retail companies include: Spar, REWE, Hofer, Lidl and Unimarkt. MPreis has not issued a statement in this regard.

[132] The following companies were named: Merkur Direkt, schatzkistl.at, Biomitter and Afreshed.

Figure 64: Number of mentions as "very close/very close" or "rather close/very close" competitor:in in Austria



Source: Request for information.

Billa is also most frequently perceived as the closest or closest competitor across Austria with 8 mentions. **Interspar** is also still classified as a close or closest competitor with 5 mentions, while Gurkerl is only perceived as a "very close/very close" or "rather close/very close" competitor by two companies across Austria. Hofer only supplies addresses in Vienna. Foodora market and Alfies also focus heavily on Vienna and the surrounding area and are therefore not named as close competitors throughout Austria, or only once. [133]

Despite a high number of market participants in online retail, the **multi-channel providers Billa and Interspar** appear to **be important competitors both in Vienna and throughout Austria**. The hybrid business model can create certain competitive advantages and disadvantages for multi-channel providers. The advantages are mainly due to the familiarity in the stationary food market, which enables multi-channel providers to retain customers through already established brands. Furthermore, the know-how from brick-and-mortar grocery retail can also be applied to online retail, for example with existing product range and pricing strategies that can be adopted. The use of existing logistical infrastructures can also give hybrid providers a competitive advantage, especially if the providers rely on the logistics concept of store picking and thus do not require any additional costly infrastructures for online retail. The aforementioned disadvantages compared to regular online retailers are rather minor. Above all, the faster and more flexible

[133] The following companies were named under "Other": Afreshed Amazon, Velofood e.U and Biomitter.

The implementation of pure online retailers compared to brick-and-mortar retailers was emphasized, as well as the more efficient processes of pure players, which, according to one provider, enable pure online retailers to offer better product freshness.

BWB carried out the analysis of online food retail with the **aim of illustrating the influence of the increasing role of online retail on competition in the food industry**. In summary, the analysis of the online food retail sector allows the following **conclusion to be drawn:**

Online grocery retail currently still plays a small but growing role in the Austrian grocery market. Competition in online food retail in Austria is strongly limited to the most populous cities and their surroundings, especially Vienna. Despite a high number of market participants in online grocery, the multi-channel providers Billa and Interspar in particular appear to be important competitors throughout Austria, although the picture is also changing within Vienna and there are other important online grocery retailers. The competitive pressure that online grocery retailers exert on brick-and-mortar grocery retailers is currently still insignificant, which can be explained, among other things, by the challenges in online grocery retail, which make it difficult to efficiently exploit the market potential. In general, online food retail has the potential to exert a certain competitive pressure, especially in Vienna. Whether online grocery retail will continue to grow as strongly as it did after the COVID-19 pandemic is questionable, as can be seen from the declining growth rates in recent years and market consolidation. Nevertheless, it can be assumed that online LEH will continue to in importance in the future. This is evident from the feedback from market participants, the majority of whom assume a growing market, even if the extent of this estimated growth varies greatly depending on the provider.

6.5.6. Price and promotion policy

6.5.6.1. Largely national pricing policy

As in stationary food retail (see section 6.2.3), a largely national pricing policy is also pursued in online food retail. According to the feedback, there are no regional differences in pricing at any company, and the pure online retailers are moderately to strongly oriented the prices of brick-and-mortar food retailers, which is why there are generally no regional price differences among the pure players either. The multi-channel companies also state that they generally not differentiate between prices in online retail and in brick-and-mortar stores. According to one company, there may different prices for a few products due to different packaging units in online and brick-and-mortar stores, but these nevertheless remain comparable. In the case of discount promotions, on the other hand, most multi-channel providers have differences between online and brick-and-mortar retailers. On the one hand, this is due to the fact that online retail often only offers a partial assortment and, on the other hand, that customers in online retail exhibit different shopping behavior and the discount promotions should be adapted to this behavior in the best possible way.

However, discount promotions in online retail do not differ by region, neither among multi-channel providers nor among pure players.[134] The majority of online retailers also do not differentiate between regions when it comes to delivery fees. Only one company states that the amount of delivery fees depends on the distance to the delivery location. Another company states that it currently makes no distinction and bears the different costs of the last mile through redistribution, but does not rule out a future regional differentiation of delivery fees. In general, however, the amount of the delivery fee is based on the value of the shopping basket and not on the region. According to one online retailer, time-limited discount promotions can also take place regionally, but in principle the promotions at this company are limited to groceries that are available throughout Austria, and there is therefore usually no need for regional differences in discount promotions. Some of the discount promotions may also delivery charges, and there may be regional differences in exceptional cases.

In principle, however, the feedback indicates a **largely national pricing policy** (including the setting of delivery charges), in which prices are very strongly oriented towards stationary retail. The reasons for the national pricing policy are varied. In general, the national pricing policy is based on the suppliers' concern not to differentiate by customer group and to offer all customers the same added value. Furthermore, regional differentiation is not technically feasible for some suppliers or would mean additional effort that would not make economic sense. The limited delivery area of some market participants also makes regional price differentiation, for example by zip code, impractical. The orientation towards the pricing policy of stationary food retailers, where a national pricing policy is also largely pursued, is another reason that speaks against a regional differentiation of prices.

6.5.6.2. Pricing

Twelve of the market participants surveyed stated that they do not use **dynamic pricing**. Generally speaking, dynamic pricing is used when automated algorithms are used for short-term pricing. Prices change in response to changing market conditions or changes in consumers' willingness to pay. Twelve of the online retailers also deny the daily adjustment of prices in online LEH. Only one or one

[134] may well be regional differentiations in the advertising measures and promotional policies of the multi-channel providers' bricks-and-mortar retail. However, when asked whether are regionally different discount campaigns in online retail, all multi-channel providers stated that the discount campaigns are the same in all regions supplied.

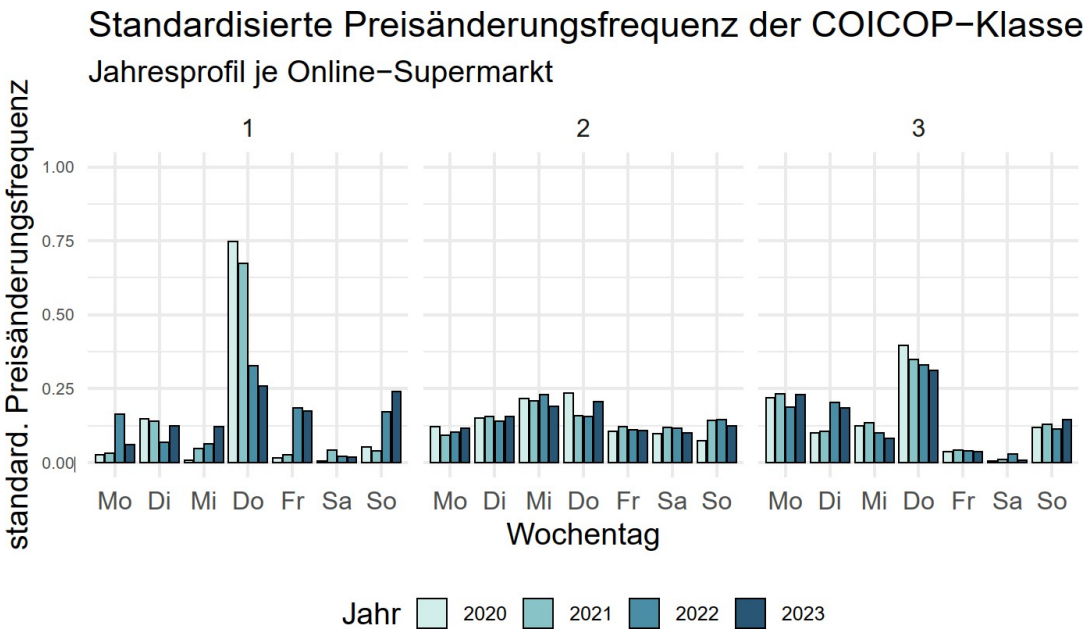
Vendor:in adjusts prices on a daily basis in order to be able to sell products that are close to their best-before date. There is also no systematic differentiation of prices by day of the week or by customer characteristics.

Using **web scraping data, the OeNB** evaluated the price change frequency by day of the week of three online grocery retailers for the years 2020 to 2023 for the BWB. According to the OeNB, the daily price change frequency represents "*the number of products whose price was lower or higher on the reference date t than on the reference date t-1, as a percentage of all products observed on the reference date t and on the reference date t-1*." The standardized price change frequency represents the frequency of the price change of different COICOP[135] aggregation levels and corresponds to the share of the price change frequency on a specific weekday, measured on all weekdays. The standardized price change frequencies were calculated using the product price observations including discounts. This is not a consideration of the price level, but rather the frequency of change. A value of 0.5 therefore means that 50% of the price changes (decrease or increase) at a particular online supermarket in the year under review were made on that day.

Although a deeper breakdown by subcategories of COICOP-3 class C011 (= food) and COICOP-3 class C012 (= non-alcoholic beverages) was carried out by the OeNB (namely COICOP-4 classes C0111 to C0119 and C0121 to C0122), an analysis of COICOP-3 classes C011 and C012 is sufficient for our purposes, as the (online) food retailers compete with each other via baskets of goods. Figure 65 shows the standardized price change frequency of COICOP-3 class C011 by day of the week, year and online supermarket, while Figure 66 shows that of COICOP-3 class C012.

[135]COICOP stands for *Classification of Individual Consumption by Purpose* and is a *"classification according to the purpose of consumption, [which] has been used internationally for economic and social statistics since 1999."* Source: https://www.statistik.at/fileadmin/pages/214/PK_20.01.22_Tabellenteil.pdf

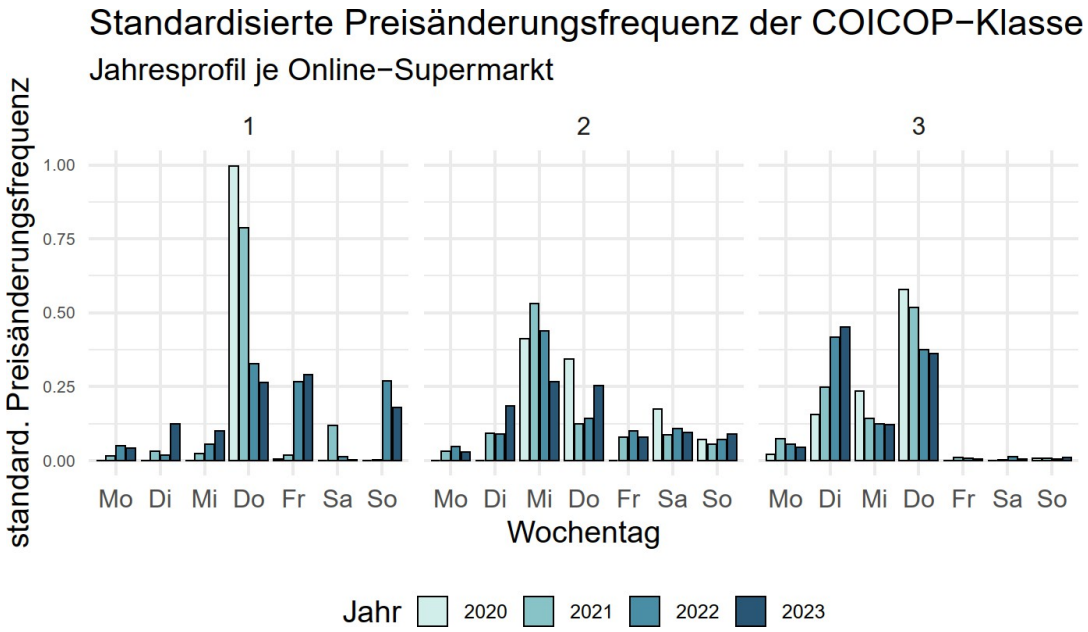
Figure 65: Standardized price change frequency of food by day of the week and on-line supermarket for the years 2020 to 2023



Source: OeNB-Prisma web scraping data, calculation by the authors.

With the background knowledge that online supermarket 2 offers its products exclusively online and online supermarkets 1 and 3 also operate bricks-and-mortar stores, a different pricing structure for food (Figure 65) and non-alcoholic beverages (Figure 66) becomes apparent depending on the type of company (pure online retail or hybrid business model). While the standardized price change frequency on Thursdays is very high for online retailers 1 and 3, it is more evenly distributed across all days of the week for online retailer 2. For multi-channel retailers 1 and 3, Thursday is therefore the day on which product prices are changed most frequently. Thursday is also generally the day on which the (online) grocery retailers' flyers are published. Although Thursday remains the day on which the most frequent product price changes for food take place across all years (2020 to 2023), its importance is decreasing from year to year. In 2020, 75% of all price changes by online supermarket 1 were made on a Thursday, while in 2023 it was only around 25%.

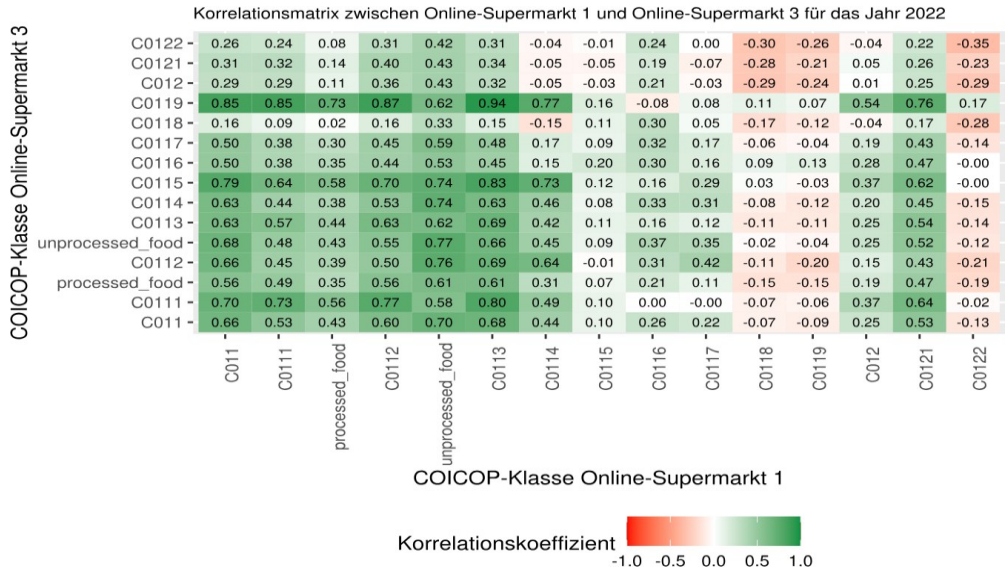
Figure 66: Standardized price change frequency of non-alcoholic beverages by day of the week and online retailer for the years 2020 to 2023



Source: OeNB-Prisma web scraping data, calculation by the authors.

The weekday profile for COICOP class C012 (= non-alcoholic beverages) is similar, although there certain differences in the standardized price change frequency. Figure 66 shows an almost unchanged picture, especially for online retailers:in 1. Here, Thursday remains the day on which prices are adjusted most frequently (at least over the years 2020 to 2022, the standardized price change frequency is higher on Fridays than on Thursdays in 2023) and the standardized price change frequency is even higher than for COICOP class C011. For online supermarket 3, Thursday also remains the strongest day across all years, although Tuesday has certainly gained in importance and has a higher standardized price change frequency than Thursday in 2022 and 2023. The online-only supermarket 2 also has a high standardized price change frequency for non-alcoholic beverages on certain days (Wednesday and Thursday), shows that the online grocery retailer(s) change(s) the prices for non-alcoholic beverages more frequently on these days. This means that price changes for non-alcoholic beverages are less evenly distributed across all days of the week than for food (COICOP class C011).

Figure 67: Correlation of price change frequencies between online retailers 1 and 3 for the year 2022



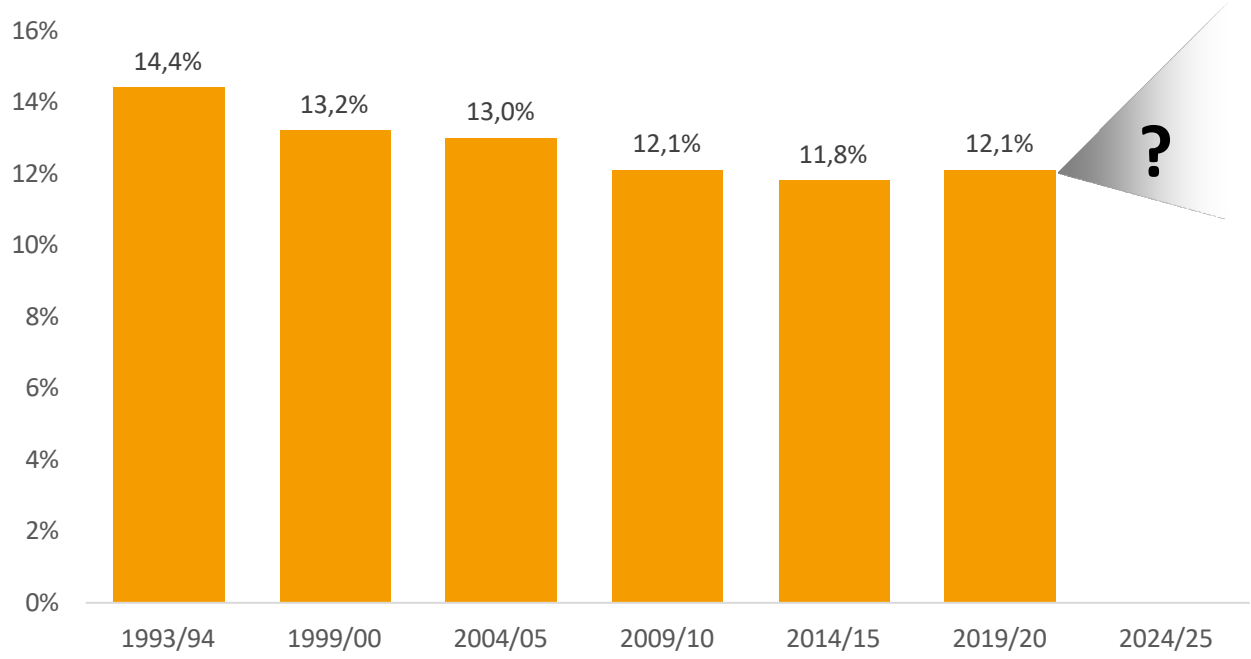
Source: OeNB-Prisma web scraping data, calculation by the authors.

Figure 67 shows the correlation of the standardized price change frequencies of the two hybrid online grocery retailers in 2022 using a correlation matrix. The correlation values indicate how strongly the standardized price change frequencies correlate with each other along the COICOP classification between two providers. Between 2020 and 2023, the OeNB found a decreasing correlation between the price change frequencies of the two online retailers. One reason for this could be that a lot of the price change frequency is driven by discounts and there rather few price changes before the inflation phase, which correlated relatively strongly with each other due to the low number. In general, a higher frequency of price changes is observed during periods of inflation. A high correlation value in the matrix indicates that the daily price change frequencies of the two online grocery retailers correlate strongly with each other. The diagonal, i.e. the correlation of the price change frequency between the two online retailers in the same COICOP classes, is particularly interesting. A high correlation within the same COICOP class would indicate that both companies have similar price change frequencies for this class. However, this presentation does not differentiate between whether the price changes are price increases or decreases, which is why it would be difficult to conclude that the prices of the two supermarkets are moving in the same direction even if a high correlation value were found. In general, the correlation values between the companies within the COICOP-3 and -4 classes are low, and no obvious pattern of price change frequencies can be filtered out from the charts.

6.6. Competitive impact depending on household income

The cost of food for private households has a particularly important role in the public debate in recent years. Consumer spending by private households is recorded every five years in the consumer survey conducted by Statistics Austria. According to the 2019/20 consumer survey, 12.1 percent of household expenditure is spent on food and non-alcoholic beverages.[136] Figure 68 shows the historical development of this share and thus the development of the average household burden. Since the 1990s, there has been a slight decline in the burden on household income, followed by a sideways movement. The impact of the strong inflation years 2022/23 can only be determined in the future consumer survey 2024/25.

Figure 68: Consumer spending on food and non-alcoholic beverages as a proportion of household income



Source: Consumer surveys by Statistics Austria.

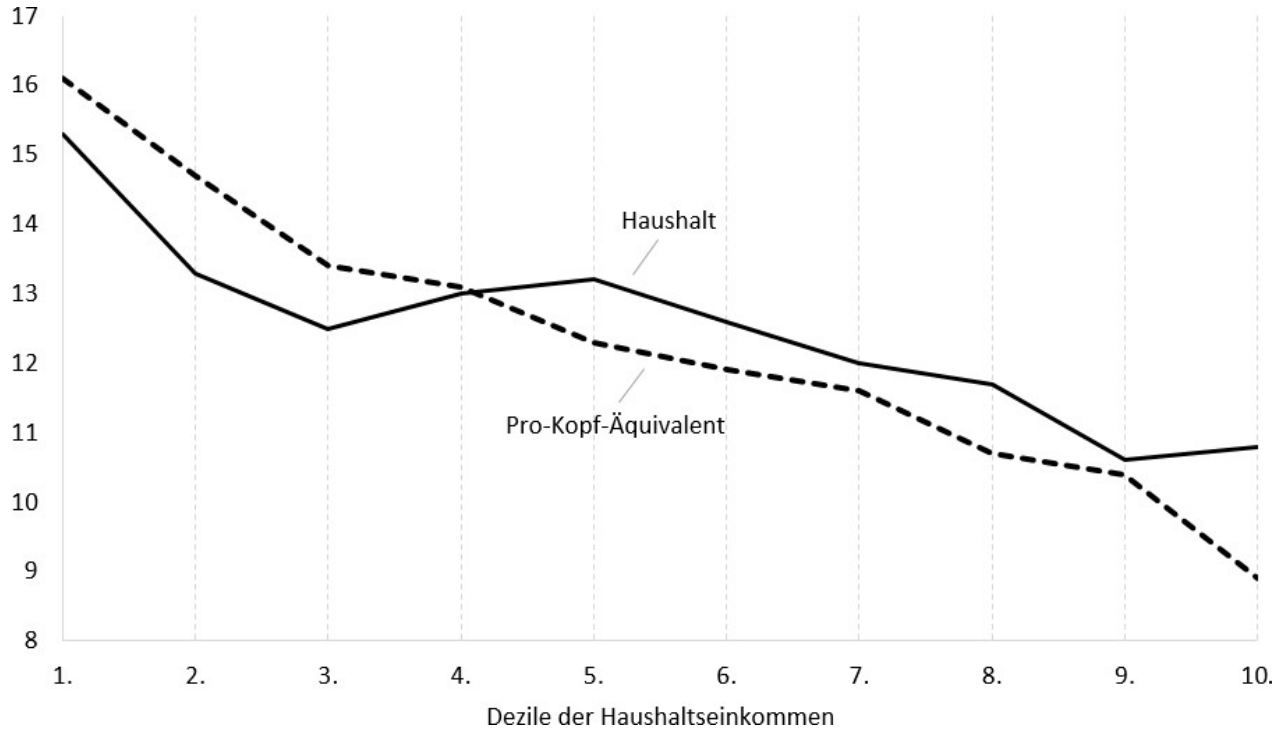
As **lower-income households** spend a larger proportion of their disposable income on food, they are **relatively more affected** by high food inflation. Figure 70 of the 2019/20 consumer survey shows the share of food expenditure in total household expenditure and per capita equivalents,[137] broken down by income decile. This shows the un

[136] On average, around EUR 3,250 was spent per household per month over the survey period (end of May 2019 to mid-June 2020). Monthly expenditure on food and non-alcoholic beverages averages around EUR 392 per household

[137] To determine the equivalized income, the income of the entire household is divided by a weighted number of household members. The oldest person in the household is given a weighting of 1, other household members aged 14 or over are given a weighting factor of 0.7 and children under 14 are given a weighting of 0.5. Thus

The different levels of concern are revealed in figures: Households in the lowest income decile spend an average of over 15%, the median household around 13% and households in the top decile slightly less than 11%. Measured in per capita equivalents, the share rises to around 16% for the lowest decile and falls to around 9% for the top decile. Food inflation therefore has different social effects, as **an increase in food prices places a relatively greater financial burden on households and individuals with lower incomes**.

Figure 69: Monthly consumption expenditure on food by income decile



Source: Statistics Austria.

In the case of food, the importance of competition therefore extends in particular to **distributional economic aspects**.[138] Households with lower incomes would therefore benefit disproportionately from more intensive competition and lower food prices. With this sector study, BWB is also making a contribution in this respect.

The Consumer Panel Services GfK data available to BWB (see point 4.1) allows a breakdown by household income. The determination of the income classes into *lower income class*, *middle income class* and *upper income class* was carried out by Consumer Panel Services GfK and

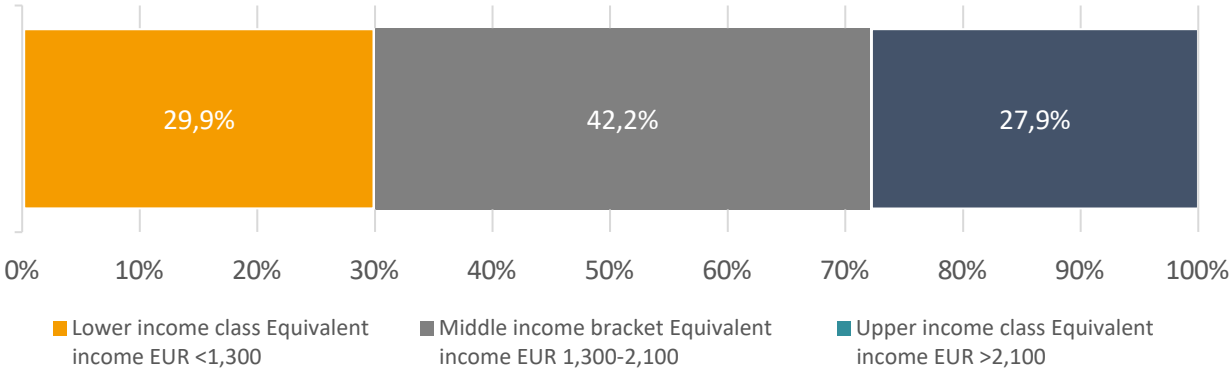
For example, a household with two adults and two children under the age of 14 would be weighted at 2.7. If the two adults have a joint net income of EUR 5,000, this would result in an equivalent income of around EUR 1,850 for the household members.

[138] See the OECD Roundtable on Competition and Poverty Reduction https://www.oecd.org/competition/competition-and-poverty-reduction.htm

is based on the OECD formula[139] for calculating equivalent income. Equivalent income is the net income that would provide each member of a household with the same (equivalent) standard of living as they would have within the household community if they were adults living alone. For this purpose, the income of the entire household is added together and then weighted on the basis of an equivalence scale. The weighting is based on the number and age people in the household. This results in the following income classes in the GfK data: Lower income class with <1,300 euros per person, middle income class with 1,300 to 2,100 euros per person and upper income class with 2,100 euros and more per person.

Figure 70 shows the breakdown of the **BWB basket of goods into these three income brackets**. At just under 42%, the middle income bracket accounts for the majority of expenditure. The remainder is split roughly evenly between the lower income bracket at 29.9% and the upper income bracket at 27.9%.

Figure 70: Share of expenditure in the BWB basket of goods in 2022



Source: Consumer Panel Services GfK; own calculation.

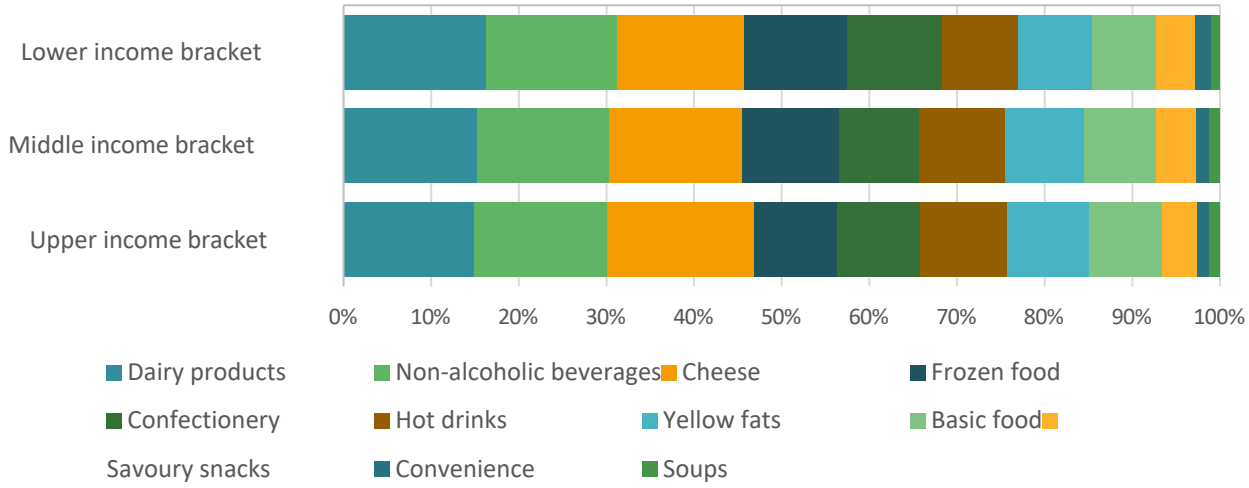
Due to different methods used by Statistics Austria in the consumer survey on the one hand (see 70) and Consumer Panel Services GfK on the other, a direct comparison of equivalent income in euros is not possible.

Figure 71 and Figure 72 show the relevance of the different product groups for the income brackets. Figure 71 shows how the expenditure of the income brackets is distributed in the 4th quarter of 2023. The **income brackets have in common** that dairy products (fruit yoghurt, natural yoghurt, drinking milk), non-alcoholic beverages (fruit juices/nectars/smooth drinks, carbonated soft drinks, still drinks/lemonades, waters), cheese and frozen food (frozen fish, frozen poultry/snacks, frozen vegetables/fruit/herbs, frozen potato products, frozen pizza incl. pizza snacks/bags) are the most popular products. pizza snacks/baguettes) are among the five most important product groups. **In the lower income bracket, the top 5** also includes confectionery

[139] OECD formula: The oldest person in the household has a weighting of 1, other household members who are 14 years or older receive a weighting factor of 0.7, children under 14 years receive a weighting factor of 0.5.

(bars, chocolate bars) and hot drinks (instant and roasted coffee) for the **middle and upper income brackets**.

Figure 71: Distribution of sales in the 4th quarter of 2023 for the three income brackets

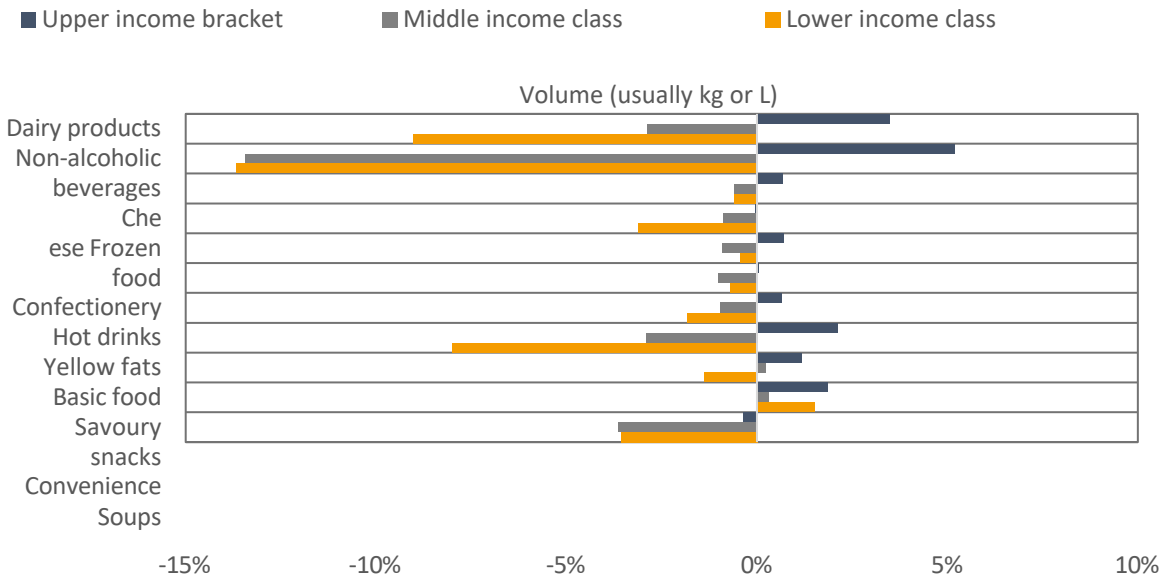


Note: Sorting based on the lower income bracket.

Source: Consumer Panel Services GfK, own calculations.

Figure 72 expands this analysis to include the change in the 4th quarter of 2022 compared to the
In order to be able to interpret the changes despite inflation, volumes were compared (mostly kg or L) and set in relation to the level in Q4 2023. This shows for the **lower income bracket that less volume** was **purchased in 10 out of 11 product groups**, the only exception with growth is convenience (cereals). The decline was most pronounced for non-alcoholic beverages, dairy products, staple foods (rice, cooking oil, pasta), soups and frozen foods. In **the middle income bracket**, the volume **fell in 9 out of 11 product groups**, with the exception of convenience and savory snacks (cocktail pastries, potato-based products), which saw growth. In the **upper income bracket**, the volume **2 out of 11 product groups fell**, namely soups and frozen food. All other product groups recorded growth.

Figure 72: Change in volumes purchased by income classes in the 4th quarter of 2023 compared to the 4th quarter of 2022



Note: Sorting based on that in Figure 71.

Source: Consumer Panel Services GfK, own calculations.

Based on habitual consumption, the rising cost of food affects the household budget of income groups differently. On the other hand, the question arises as to whether the income group-specific shopping baskets additionally increase the impact and how this is related to competition. In order to investigate this, the average costs per unit volume (usually kg or L) in Q3 2021 and Q4 2022 are compared– in the further Cost per volume-
unit (or, as a synonym for this, the price). The advantage of this approach is that the price actually paid costs, which also includes a switching effect to cheaper products or own brands within the product group.[140] The disadvantage is that no external substitution effect, such as switching to alternative foods outside the respective group, can be represented. The following calculations are therefore to be understood as approximate values.

Figure 73 shows how the price changes in the lower and upper income brackets have behaved in relation to the middle income bracket in the 4th quarter of 2022 compared to the 3rd quarter of 2021.

For the **upper income bracket**, the overall **picture is less conspicuous**. In fact, the aggregated costs per unit volume for the upper income group appear to be even lower than those of the middle income group. This may also due to a switch to private labels. Irrespective of individual cases, the upper income bracket thus appears to be affected by food inflation not only through a lower share of expenditure in household income

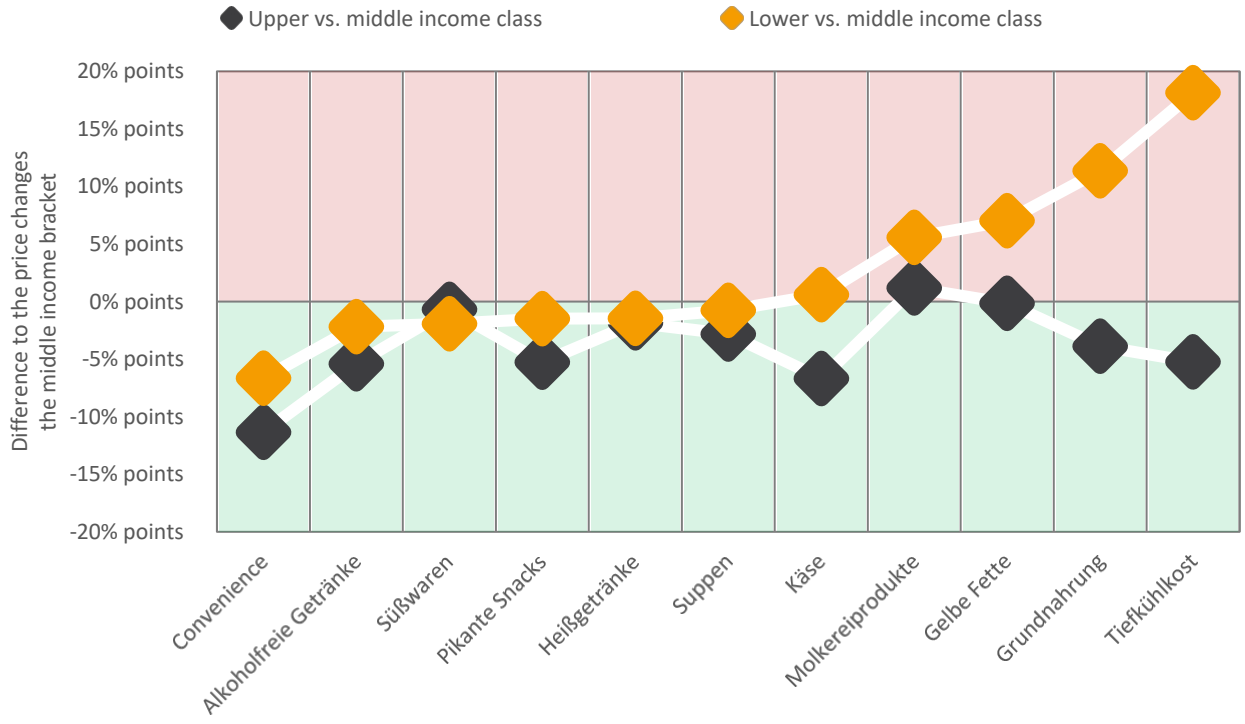
[140] In general, it was found that the sales prices of private label products have risen comparatively more the sales prices of

branded products, see point 6.1.5.

The ability to buy cheaper products (e.g. private labels) can partially offset food inflation.

For the **lower income group**, the picture is also less striking for most product groups; in some cases, the costs paid per unit volume were even significantly lower than those of the middle income group. Substitution effects to cheaper alternatives or a renunciation possible causes. In the convenience sector, the costs paid per unit of volume are around 5 percentage points lower than those of the middle income bracket. **The lower income bracket is noticeably more affected than the middle income bracket for dairy products** (+5.6 percentage points), **yellow fats** (+7.0 percentage points), **basic food** (+11.4 percentage points) and **frozen food** (+18.1 percentage points).[141] As already mentioned, the costs for dairy products and frozen food are particularly significant in terms of the total costs for households.

Figure 73: Impact of price changes on the lower and upper income brackets in relation to the middle income bracket in the 4th quarter of 2021 compared to the 3rd quarter of 2021



Source: Consumer Panel Services GfK; own calculation.

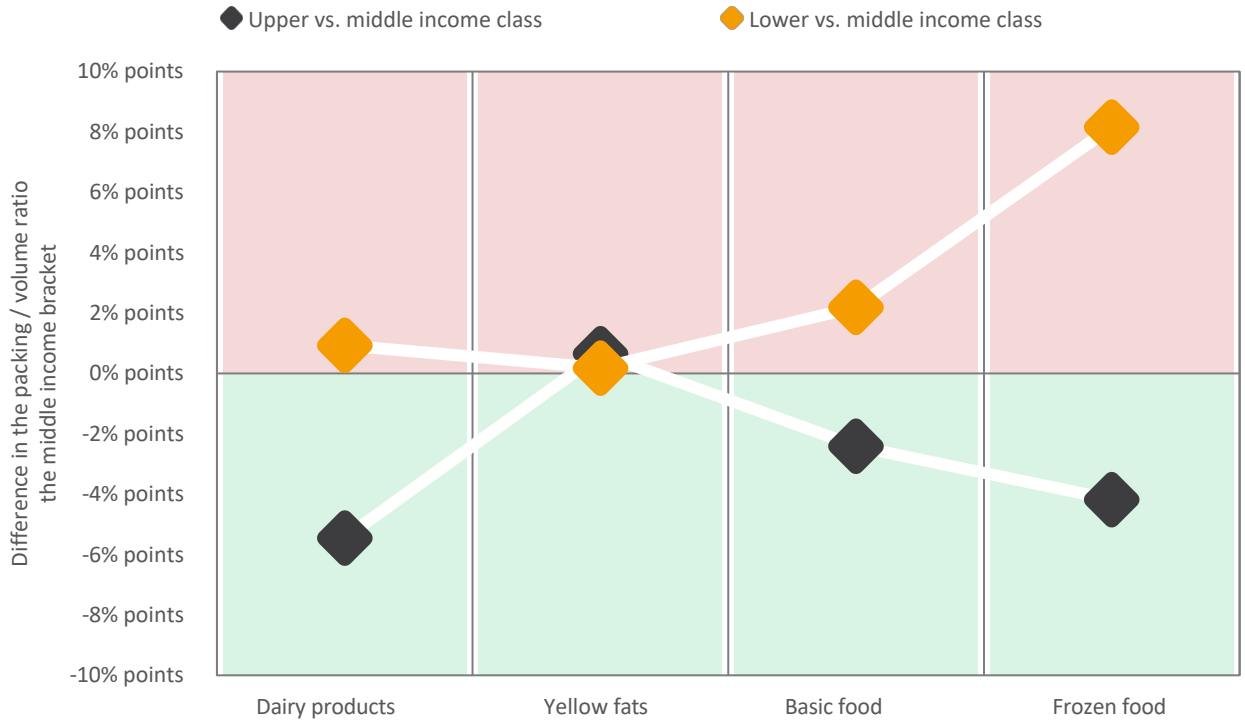
Figure 74 takes a closer look at the **identified product groups**: Dairy products, yellow fats, basic food and frozen food in more detail. For this purpose, the change in the ratio of packs sold to volume units was compared, again in relation to the middle income bracket and for the same period (2021 Q3 vs 2022 Q4). An increase can be interpreted as a deterioration for consumers. This means that either more packs had to purchased for the same quantity,

[141] The share of this product group in the expenditure of the lower income group in the data panel in the 4th quarter of 2022 is as follows Dairy products 16.3%, yellow fats 8.4%, staple foods 7.4% and frozen foods 11.8%.

or the same number of packs contain less. At product group level, dairy products, yellow fats and staple foods appear to be less conspicuous. **Frozen food, on the other hand, stands out in the lower income bracket**.

For frozen food, this shows that it is not only the cost per unit volume for the lower income group that has developed worse than for the middle income group. The ratio of packs to unit volume has also deteriorated more sharply. This can be interpreted **as an indication** that the lower income bracket could be excessively affected by price increases and volume reductions in frozen food, i.e. by **shrinkflation**.

Figure 74: Impact of packing on volume changes in the lower and upper income brackets in relation to the middle income bracket in Q4 2021 compared to Q3 2021 for selected product groups



Source: Consumer Panel Services GfK; own calculation.

This is examined in more detail in section 6.4. In fact, even a pure consideration of the lower income bracket shows that **frozen food may** have **a negative impact on the lower income bracket in particular.**

However, the relevant question from **a competition perspective** is also whether consumers in the lower income bracket would be more exposed to an increase in the market power of suppliers. To examine the competitive situation approximately[142] , the Herfindahl-Hirschman Index (HHI) and its change, the HHI delta, are considered for frozen food.

Figure 75 shows the HHI delta for the product groups in the frozen food category: frozen pizza incl. pizza snacks/baguettes, frozen potato products, frozen vegetables/fruit/herbs, frozen poultry/snacks prepared without side dish and frozen fish. In the diagram, the HHI delta is shown for the three income brackets in relation to each other, and not in relation to the middle income bracket as in the previous figures, as the absolute HHI delta is more meaningful. An increase is to be interpreted as an increase in market concentration. For the lower income bracket, an increase in the HHI delta is only found for frozen vegetables/fruit/herbs and frozen fish, whereby for frozen vegetables/fruit/herbs the lower income bracket appears to be less affected by the concentration than the other two income brackets. Only **in the case of frozen fish is the lower income bracket** (and to some extent also the upper income bracket) **significantly more affected by an increase in concentration**. Frozen fish for 2.8% of expenditure in the data panel, or 23.7% of expenditure within frozen food, in the lower income bracket in Q4 2022. In the case of frozen fish, it is also very likely that the price trends are due to international developments, as Austrian production is low in relation to food consumption– the national level of self-sufficiency at
Fish in general is only 8% in Austria.

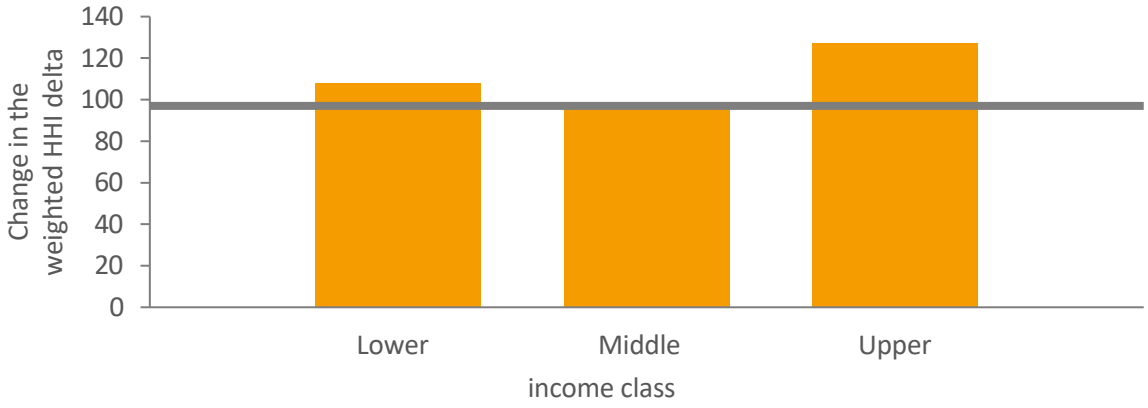
[142] The HHI is used in merger control, for example, and is calculated as follows: HHI $=\sum_{i=1}^{N} m_i^2$, where for N companies on the market, m_i is the market share of the company i . For the purposes of this analysis, the HHI delta defined as the change in the HHI at the time $t+1$ compared to t , i.e. HHI delta = $HHI_t - HHI_{t+1}$. An important limitation is that this analysis is not based a market definition under antitrust law.
It is also assumed that the market change mainly due to organic market changes. For these reasons, the HHI delta should be interpreted with caution.

Figure 75: Change in the HHI (HHI delta) of frozen food product groups in Q4 2022 compared to Q3 2021

Source: Consumer Panel Services GfK; own calculation.

The following Figure 76 is intended to give the interested a final overview of **the concentration trend** across all **product groups**, even if this not a market definition under antitrust law. The weighted aggregated HHI delta of the product groups for the income brackets shows that the **lower income bracket is only slightly higher than the middle income bracket**. Although the upper income bracket is slightly higher in relative terms, the weighted aggregated HHI delta of 127 is not particularly high overall.

Figure 76: Change in the aggregated weighted HHI of product groups, 2021Q3 vs. 2021Q4



Source: Consumer Panel Services GfK; own calculation.

In conclusion, the following can therefore be stated: Although the **lower income group more negatively affected by frozen food**, which is also accompanied by a high increase in market concentration for frozen fish, the results for the other product groups are otherwise mixed.

Overall, it can be seen that the **lower income group is more affected by price increases** than the middle income group in several important product groups, namely dairy products (+5.6 percentage points), yellow fats (+7.0 percentage points), basic foods (+11.4 percentage points) and frozen foods (+18.1 percentage points).

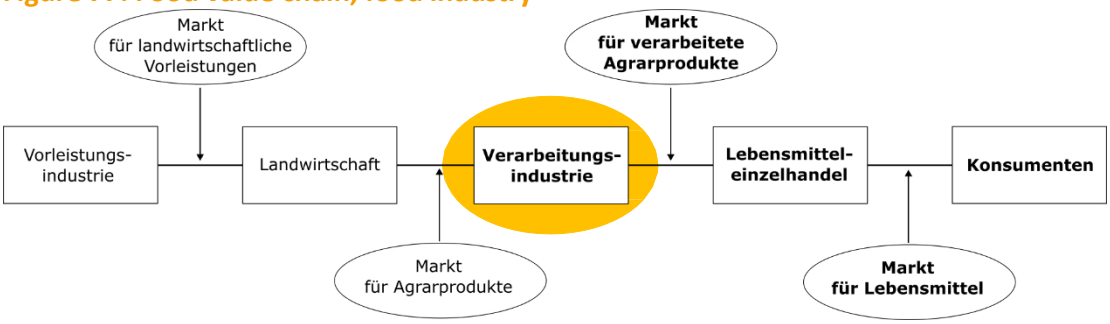
In order to close a possible transparency gap, which would also benefit the lower income group in particular, reference is made to the BWB focus paper "Price comparison platforms in the food sector".[143] In this paper, BWB proposes **unbureaucratic, decentralized and fast data access** for private food price comparison platforms. To close the transparency gap described above, it is important to have as broad a basis of product groups as possible.[144] This is because the usefulness of price comparison tools increases with the **inclusion of the largest possible number of products**.

[143] https://www.bwb.gv.at/news/detail/branchenuntersuchung-lebensmittel-fokuspapier-preisvergleichsplattformen

[144] COICOP group 01 from the total basket of goods (6_Warenkorb_H_VPI_2023.pdf (statis- tik.at) is considered suitable in this respect.

7. Food industry

Figure 77: Food value chain, food industry



Source: Own representation.

This chapter deals with the food industry itself and its relationship to the upstream and downstream stages in the value chain, namely agriculture, the intermediate goods industry and food retail. Other distribution channels such as food wholesalers or direct sales are not in course of this sector study, as already explained in section 2.3. Accordingly, all calculations on prices, price changes, sales shares or market shares refer to business relationships with the Austrian food retail trade or, in the area of purchase prices, to agriculture or the wholesale industry. The product groups shown below refer to the BWB basket of goods, see its detailed composition under point 5.

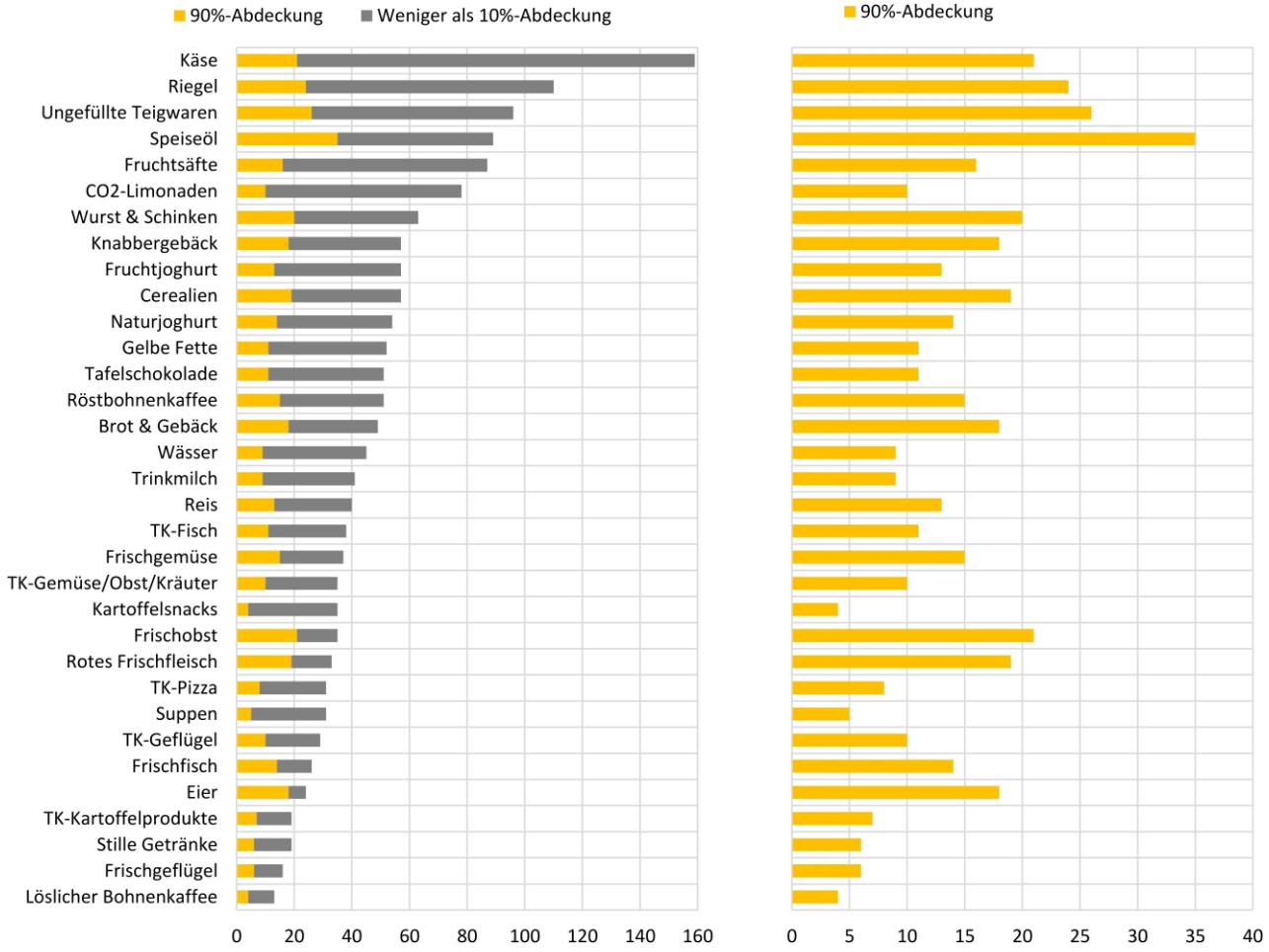
7.1. Market structure

7.1.1. Manufacturer:innenvielfalt

The available Consumer Panel Services GfK data from the household panel summarizes both the manufacturers of private labels and branded products as well as the manufacturers of fresh products in individual collective categories. For example, all manufacturers of private labels for REWE are combined in a product group with the supplier designation "REWE". In GfK data on the Fresh Produce Panel, however, there is no breakdown of the product groups into suppliers. For these reasons, the top 5 Austrian food retailers (Spar, Rewe, Hofer, Lidl and MPreis) were asked in the course of several requests for information to BWB with their turnover figures, sales volumes and their goods turnover for their suppliers (with an annual turnover share of at least 5%). Based on this transmitted data, statements can be derived and made in combination with the GfK data with greater granularity than from the GfK data alone. The following figures include both manufacturers of branded goods and private labels, with some companies producing both under their own brand (branded goods) and under the brands of food retailers (private labels).

Overall, the available information a very high diversity of manufacturers, which is characterized by a high degree of heterogeneity between the individual product categories (Figure 78). The following figures include both manufacturers of branded products and manufacturers of private labels. While at least 159 different manufacturers offer hard cheese, semi-hard cheese or soft cheese in Austrian food retail (each on average per quarter), there are only 13 manufacturers of roasted bean coffee and 16 manufacturers of fresh poultry. In general, it should be noted that several manufacturers pursue a multi-brand strategy and certain own brands are often produced by several manufacturers, so that the number of manufacturers in a product group does not correspond to the number of different brands. Nevertheless, it is clear that the variety of manufacturers and brands is particularly high for cheese, bars, unfilled pasta, fruit juices and edible oils.

Figure 78: Number of manufacturers (quarterly average 2022)



Note: Data on producers of private labels and fresh products were requested from the food retail companies, whereby companies with an annual share of sales of less than five percent in the respective product groups were grouped together in a residual item. The minimum number of manufacturers in these residual items was estimated. Filled pasta was excluded due to insufficient data.

Source: Consumer Panel Services GfK; own calculation.

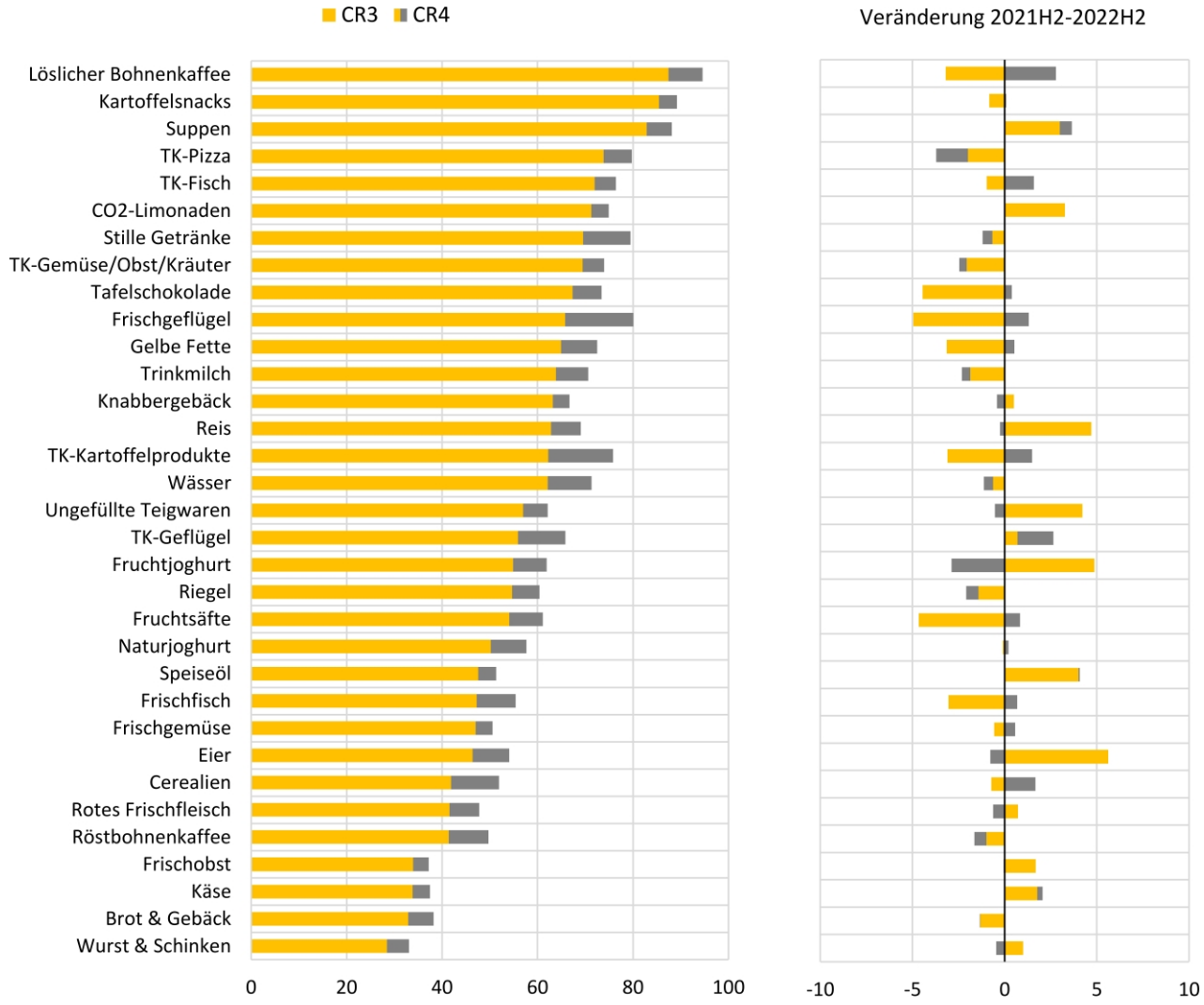
As Figure 78 shows, the number of different manufacturers is very high in many cases, but **the majority of household expenditure in each individual product group is only covered by a small to moderate number of different manufacturers**. Around 90% of household spending on hard cheese, semi-hard cheese and soft cheese is covered on average by only around 21 of the almost 159 manufacturers in total. If the manufacturers with 90% coverage in the specific product groups are also regarded as manufacturers of relatively close substitutes and therefore as close competitors, the *effective* diversity of manufacturers is many times lower than suggested at the beginning of Figure 78. For consumers, this means that **usually only a small to moderate selection of manufacturers in each product group** can even be considered **as suitable alternatives for substitutable products**, since a large number of the various manufacturers would not be able to produce their products to an extent that meets demand. One exception here is edible oil with 35 producers, which together cover 90% of total expenditure.

7.1.2. Concentration on the supermarket shelf

The market structure of the food industry is characterized by **a high degree of heterogeneity** and is highly dependent on the product category under consideration, see the comments on manufacturer diversity in section 7.1.1. **For** example, the **three largest manufacturers of instant coffee beans will hold a combined market share of just under 84% in 2022** (Figure 79). A similar picture emerges for **potato snacks** and **soups**. **The concentration in these product groups can certainly be described as high.** In comparison, the three largest producers of sausage & ham, bread & pastries, cheese and fresh fruit each have a combined market share of just under 40%. CR3 values[145] at this level a moderate to low concentration. The CR4 values[146] in the same figure or evaluated product group do not allow any overly divergent conclusions to be drawn. From the second half of 2021 to the second half of 2022, the CR3 value decreased in 20 of the 33 product groups shown. In the chocolate bars, fresh poultry and fruit juices product groups in particular, the CR3 value fell by almost five percentage points. Market shares shifted towards smaller companies in particular, as the fourth-largest company was unable to substantially increase its market share (gray bar). According to the CR scores, the concentration in these industries has decreased. However, there are also several product groups in which concentration increased between 2021 and 2022. This affected the product groups eggs and rice, among others. Overall, the development of concentration rates therefore presents a differentiated picture. In 20 of the 33 product groups, the combined market shares of the top 3 companies fell and in 16 of these 20 product groups they also fell for the top 4.

[145] CR values describe the market share of the largest companies in a sector or product group as a concentration rate. The CR3 value indicates the market share of the three largest companies, the CR4 value the market share of the four largest companies.
[146] ibid.

Figure 79: Concentration rate of the three/four largest suppliers (quarterly average 2022)



Note: The product groups are arranged in descending order according to CR3. Filled pasta was excluded due to insufficient data. The change is based on the quarterly average in the second half of 2021, which is compared with the quarterly average in the second half of 2022. Example of interpretation: The CR3 for soluble coffee beans fell by 3.2 percentage points in the second half of 2022 compared to the second half of 2021. However, the difference between CR4 and CR3 rose by just under 2.8 percentage points over the same period (gray bar). Overall, CR4 therefore increased by 0.4 percentage points over this period.

Source: Consumer Panel Services GfK; own calculation.

The concentration rates (CR3 and CR4) shown in Figure 79 provide an overview of the predominant concentration of suppliers in the respective product groups. When interpreting these concentration rates, however, it must be noted that the distribution of market shares between the three or four largest companies is not evident. For example, if the three largest companies each have a market share of 30%, this results in a total CR3 value of 90%. However, the same CR3 value would also result if, for example, the largest company had a market share of 80% and the other two companies each only had a market share of 5%. It is therefore obvious and sensible to analyze the concentration of a market and the corresponding competition.

The Herfindahl-Hirschman Index (HHI) attempts to take this situation into account and to present it realistically by quantifying market shares. The Herfindahl-Hirschman Index (HHI) attempts to take this situation into account or to present it realistically by quantifying the respective market shares. The calculation effort and the amount of data to be used are correspondingly higher for the HHI, as the market shares of all companies are in the calculation. The formula for calculating the HHI can be summarized as follows:

$$HHI = \sum_{i=1}^{N} s_i^2 \quad wobei\ 0 \leq s_i \leq 100$$

Here, n represents the number of manufacturers and s_i the market share of the companies i. The HHI is either between $\frac{1}{n}$ and 1 or between $\frac{10.000}{n}$ and 10,000 if the market shares are expressed as percentages.
(i.e. 60 instead of 0.6). Table 15 shows the assessment standards of the calculated HHI in merger control, on the one hand by the European Commission (EC) and on the other hand by the *United States Department of* Justice (DOJ). For example, the EC considers a market to be highly concentrated from an HHI of 2,000, while the DOJ only makes this assessment from an HHI of 2,500. In general, for a given HHI, the EC tends towards a higher degree of concentration in its merger control assessments than the DOJ.

Table 15: Assessment criteria of the HHI in merger control

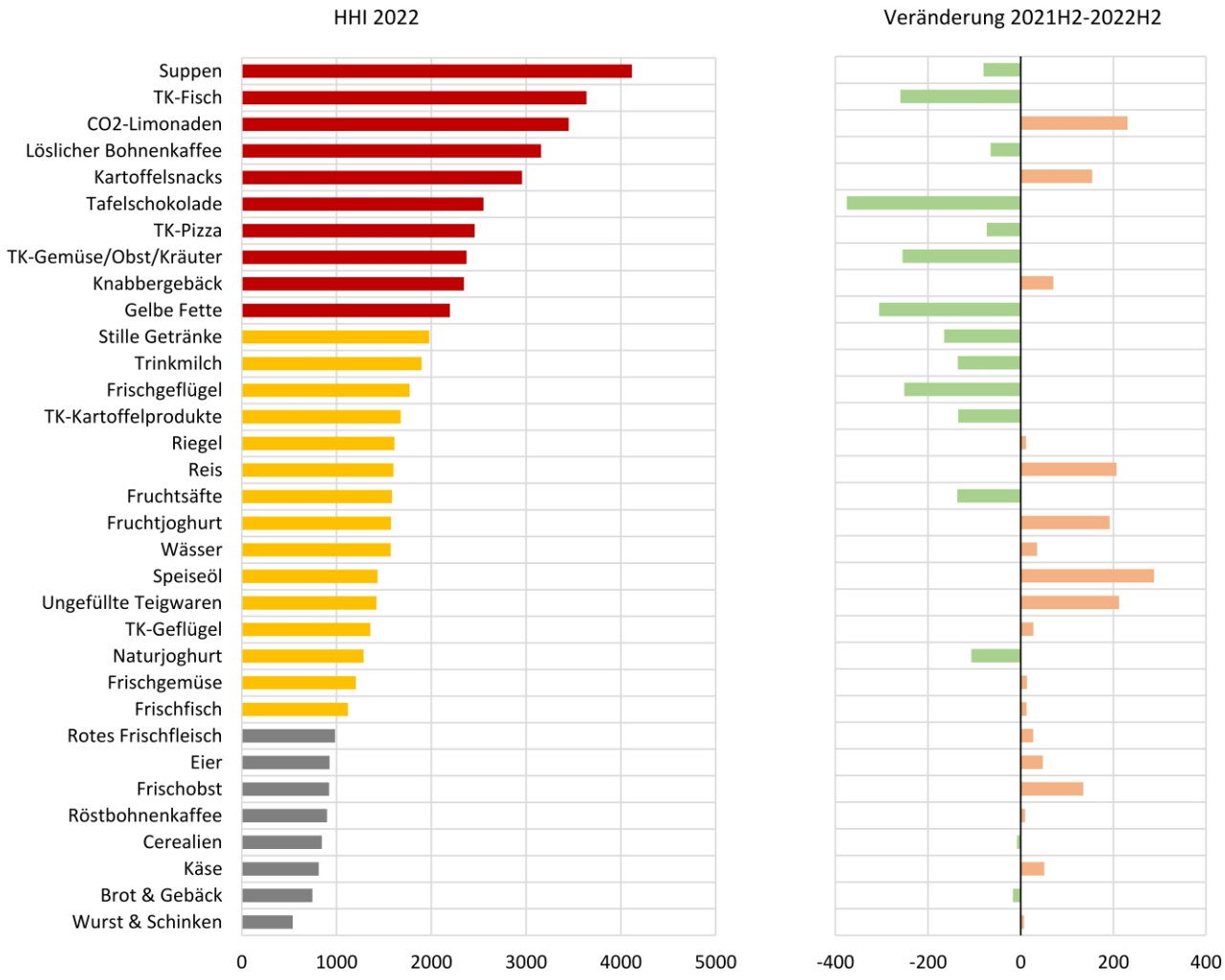
	Degree of concentration		
	low	**moderate**	**high**
European Commission	$HHI <$ 1.000	1,000 $\leq HHI <$ 2,000	$HHI \geq$ 2.000
United States Department of Justice	$HHI <$ 1.500	1,500 $\leq HHI <$ 2,500	$HHI \geq$ 2.500

Source: EC, Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, OJ 2004/C 31/03, para. 19ff, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52004XC0205(02); DOJ, Horizontal Merger Guidlines § 5.3, 2010, *https://www.justice.gov/atr/horizontal-merger-guidelines-08192010#5c.*

The individual HHI for 2022 was calculated for all product groups in the BWB basket of goods, see Figure 80, whereby the product groups are not market definitions within the meaning of antitrust law. As can be seen, the concentration is considered moderate or low for the majority of the individual product groups. The product markets for sausage & ham, bread & pastries, cheese, cereals, roasted bean coffee, fresh fruit, eggs and fresh red meat can be assessed as low concentration according to the EC's assessment criteria. Sausage & ham in particular stands out with an HHI of just over 500. If this product group were to be considered a separate product market according to the standards of competitive market definition, this market would probably be assessed as highly competitive. The two largest manufacturers in these product groups each held a sales share of just over 10% in 2022. For the

In contrast, the product groups **soups and frozen fish** a **high concentration**, as do **carbonated soft drinks, instant coffee beans, potato snacks and chocolate bars**. The concentration of **frozen pizzas, frozen fruit and vegetables, snacks and yellow fats** is also high by EK standards. In summary, it can be said that the food industry is moderately to highly concentrated on the shelves of Austrian food retailers, whereby competitive product groups should also be emphasized.

Figure 80: Herfindahl-Hirschman Index (HHI; quarterly average 2022)



Note: The color coding is based on the European Commission's assessment scale in Table 15: (i) wine red: high concentration, (ii) orange: moderate concentration, (iii) green: low concentration. The change is based on the quarterly average in the second half of 2021, which is compared with the quarterly average in the second half of 2022.

Source: Consumer Panel Services GfK; own calculation.

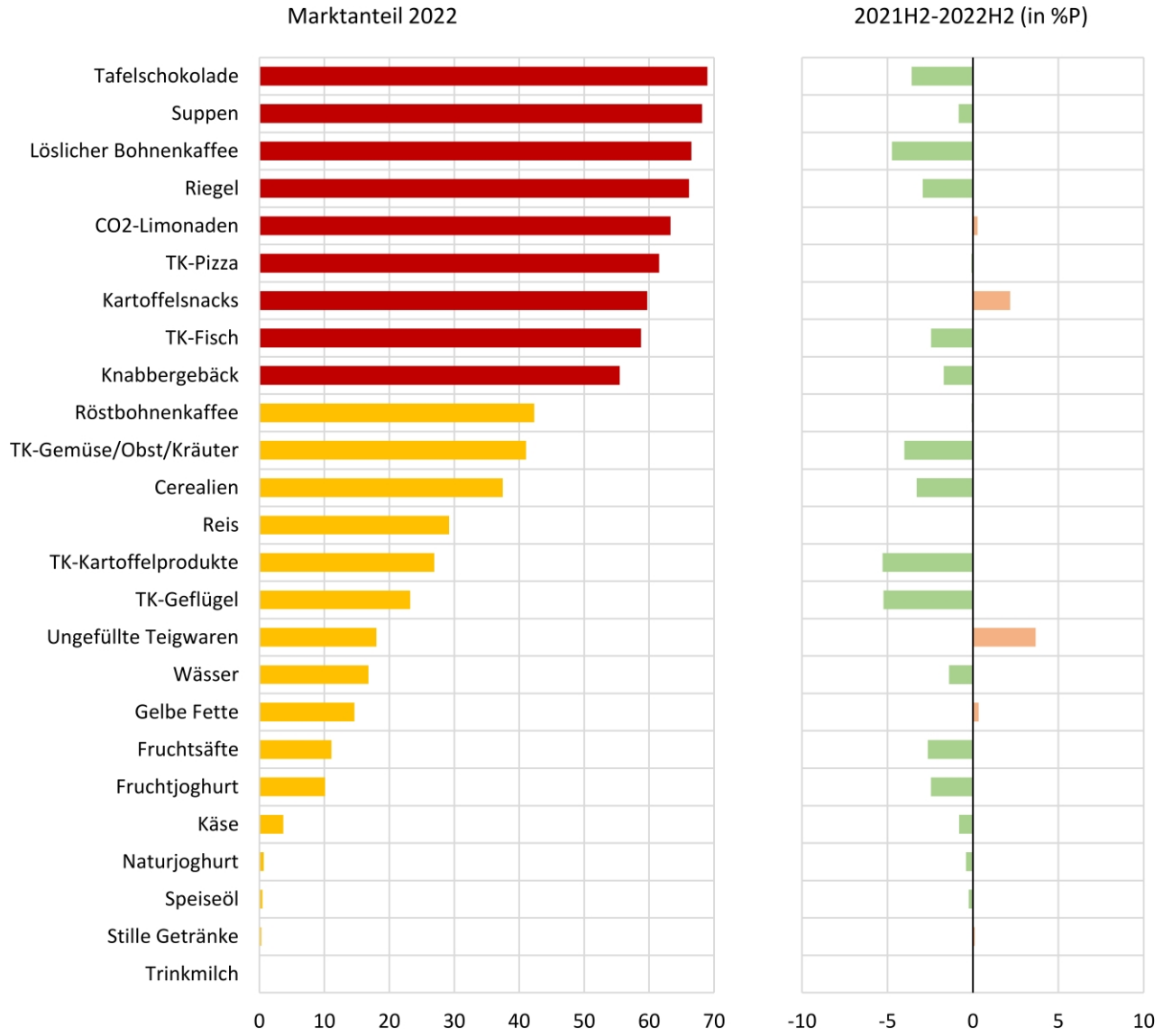
Over the period from the second half of 2021 to the second half of 2022, the HHI fell in 15 of the 33 product groups, in some cases very sharply. Chocolate bars and yellow fats stand out here. Both product groups have a relatively high concentration, but this was 300 to 400 index points higher in 2022. In contrast, the HHI for cooking oil rose by just under 300 points. How

The concentration rates (CR3 and CR4) also show a differentiated development with increasing concentration in 18 product groups and decreasing concentration in 15 other product groups. However, it should be noted here that the HHI has risen by less than 20 points in five of the 18 product groups. On the other hand, a decrease of less than 20 points can only be registered for two product groups.

Above (in Table 12), a selection of 26 companies were defined as multinational food groups for the purposes of this industry study. These companies enjoy particular importance in the food retail sector due to their global presence and international brand perception. They also have a certain degree of negotiating power vis-à-vis food retailers. This is not only because of the alternative options available for selling their products - as they are active in a number of countries - but also because of the increased brand loyalty and therefore lower price elasticity than comparable products that do not have this.[147] The market shares of these 26 food groups in 2022 are shown in descending order in Figure 81. As the significance of multinational corporations in product groups for fresh products in Austria is negligible, eight product groups for fresh products (excluding cheese) were excluded from the in-depth analysis. Due to insufficient data, filled pasta products were also excluded, so that the sales shares of multinational groups for a total of 25 product groups are shown in Figure 81 below. **In nine product groups, multinational food companies controlled more than 50% of average quarterly sales in 2022**. In the **chocolate bars and soups** product groups**, this figure was around 70%.** Multinationals also held more than 60% of sales in the product groups for **instant coffee beans, bars, carbonated soft drinks and frozen pizza.** In contrast, products from multinational food companies are barely present in drinking milk, non-carbonated beverages, cooking oil and natural yoghurt. Cheese also accounted for less than 5%. What is striking about the development from the second half of 2021 to the second half of 2022 is the loss of market share in almost all product groups. Only five product groups show an increase in the combined market shares of multinational food groups, with only two product groups (potato snacks and unfilled pasta) showing a gain of several percentage points. In contrast, market shares in a number of other product groups have fallen moderately to sharply. With a few exceptions, the importance of multinational food groups in the BWB basket has therefore declined significantly in some cases in 2022.

[147] Price elasticity is the percentage change in the quantity demanded in the event of a price increase of one percent. A price elasticity of less than -1 is referred to as elastic demand (for a given sales volume).

Figure 81: Market shares of multinational corporations (quarterly average 2022)



Note: Filled pasta was excluded due to insufficient data. Bars colored wine red mark product groups in which multinational food companies control more than 50 percent. The change is based on the quarterly average in the second half of 2021, which is compared with the quarterly average in the second half of 2022. Example of interpretation: The CR3 for soluble coffee beans fell by 3.2 percentage points in the second half of 2022 compared to the second half of 2021.

Source: Consumer Panel Services GfK, own calculations.

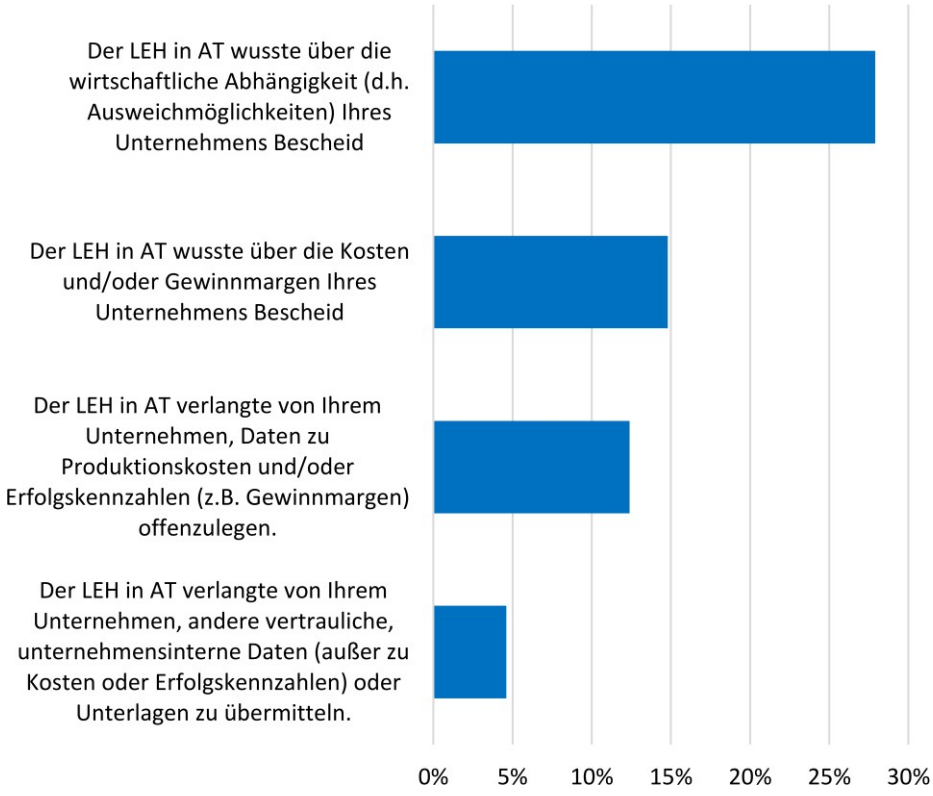
7.1.3. Transparency between the food industry and food retailers

Sales/purchase prices. Price transparency in trade relations between the food industry and Austrian food retailers is highly asymmetrical. As a customer, the food retailer is fully informed about the purchase prices of its suppliers, but hardly about the purchase prices of the same or comparable suppliers of its competitors in the food retail industry. On the other hand, suppliers have little knowledge of the sales prices of competitors in the food industry, but are informed about the acceptance of different purchase prices by their customers in the food retail sector. General conclusions about price levels and general price agreements of competitors can be drawn.

It is hardly possible, if at all, to compare prices in the food industry and in food retail, as the individual producers in the food industry usually negotiate individually or bilaterally with their customers in food retail. The key aspect here is the prevailing distribution of negotiating power, which ultimately determines the prices (e.g. sales prices, one-off payments, other conditions, etc.) and other procurement and purchase obligations at which specific business relationships or delivery obligations are then entered into. From a competition perspective, however, the lack of transparency in purchase prices in the food retail sector among suppliers and retailers is not necessarily problematic. Since the Austrian food retail sector in particular has very high buyer power due to its high concentration (see point 6.1), transparent purchase prices would probably put additional pressure on manufacturers in the food industry in their price negotiations food retailers and further restrict their negotiating power. European purchasing alliances covering several Member States enable retailers to compare purchase prices of products across the EU and reduce wholesale price differences between Member States through joint negotiations with manufacturers. Although this would at best allow lower purchase prices for food retailers in the short term, this does not necessarily translate into lower purchase prices for consumers in food retail. However, due to the sometimes high concentration in various product groups in the food industry (see point 7.1), it is to be feared that the diversity of manufacturers could suffer or decline as a result. With increased price transparency, only those companies with sufficient negotiating power would be able to make profits that would make remaining in the respective market attractive in the long term.

Costs. In requests for information to more than 1,500 Austrian food retail suppliers (these are presented in detail in section 10.2, of which around 1,000 based in Austria), the BWB asked, among other things, to what extent food retailers are aware of the cost structure or profit situation of suppliers and thus an information advantage in subsequent price negotiations. Figure 82 shows the main results of these requests for information in this regard, whereby it should be noted when interpreting the figures that multiple answers were possible. Just under 15% of suppliers stated that the food is aware of the cost and profit situation of food retail suppliers. In addition, it was often reported in the course of the requests for information that food retailers have extensive market knowledge of the food industry due to their own brands and the resulting close relationships with private label producers and know how to use this knowledge in price negotiations. This includes knowledge of cost structures and developments in individual or relevant cost components. In addition, more than 12% of the 588 suppliers also reported that they were requested by the food retailer to disclose data on production costs or key performance indicators (e.g. profit margins) to individual customers in the food retail sector. This data can ultimately also be used by retailers in price negotiations with other suppliers. The high buying power of the food retail industry is therefore also expressed in the procurement of company- and competition-sensitive information, which in turn significantly increases the negotiating power of the food retail industry.

Figure 82: Knowledge of suppliers' costs and profit margins



Notes: n=588 suppliers.

Source: Request for information.

In summary, it can be stated that there is an **information gap in favor of the food retailer** in any price negotiations, which underpins or strengthens its negotiating power. Above all, knowledge of economic dependencies, production costs and the individual profit situation of its suppliers allows the food retailer to build up pressure in the negotiations, which suppliers to disclose company- and competition-sensitive data to the food retailer.

7.2. Market behavior

7.2.1. Negotiation strategies of manufacturers vis-à-vis food retailers

If the demands of manufacturers (regardless of whether they are manufacturers of branded or private label products) for higher purchase prices (i.e. price increases) are rejected by the food retailer, it will be necessary for them to take a strategic approach when negotiating price increases. Feedback has often emphasized that food retailers initially reject demands for price increases. After all, many manufacturers speak of a delaying tactic and various negotiating strategies are in the course of the negotiations in order to achieve acceptance.

The feedback from the manufacturers surveyed clearly shows that price negotiations between them and food retailers are often difficult and protracted. One reason for this

is, on the one hand, the buyer power that exists due to the high market concentration and, on the other hand, the extensive market knowledge of the individual companies in the food retail sector. Especially before being commissioned to produce private label products, manufacturers are usually asked to disclose their cost structure. In the course of price negotiations, brand manufacturers are also often asked to disclose their costs and cost trends in order to justify the requested price increases. However, it is often not possible to speak of *voluntary* disclosure of the requested information. Information on cost structure, cost development and profit margins is sometimes competition-sensitive data or trade secrets.

In the following table, a representative selection of statements from the - numerous - manufacturers interviewed in various industries and product groups is reproduced verbatim. This is to give an impression of the different negotiation strategies and situations:

Table 16: Selection of supplier negotiation strategies

Product group	Statements on negotiation strategy
Drinks	"*Perseverance helps*"
Coffee	*"Fact-based argumentation means that price adjustments are widely accepted by food retailers (e.g. green coffee charts, USD).*"
Pizza	"*Demonstrate that the price increases in line with the market. In the event of a categorical rejection of the price increase, delivery had to be suspended for several weeks for economic reasons until the cost increase was accepted [...] and delistings [...] had to be accepted.*"
Confectionery	"*It was signaled to retailers that they would also accept delistings if necessary.*"
Dairy products	"*Threat of delivery stop*" and "*Partial disclosure of the calculation*"
Food group (several industries)	*"Basically, we have tried to provide transparency on the composition of the main cost drivers and their amount."*
Snacks	*"Passing on cost increases must be 'verifiable', increases in basic components the easiest to argue.*"
Food group (several industries)	*"The greatest possible transparency and disclosure was very important to us from the outset, which is why the food retail sector was informed very clearly and unambiguously about the cost drivers and the cost increases. At the same time, support was also offered to food retailers in order to gain acceptance and cushion the effect of the necessary increases, in particular through additional advertising cost subsidies, increasing the frequency of promotions (i.e. additional promotional discounts), online activations for the food retailer's online store and the implementation of attractive prize draws for consumers."*
Food group (several industries)	*"From our side, [...] in particular our investments in the attractiveness of brands - recipe improvements, new artwork, advertising and other activities - are emphasized and the financial support of attractive marketing to customers is also evaluated [sic]."*

Source: Request for information.

When selecting these statements, it should be noted that they have all been strongly influenced by price trends and general developments in the food industry and wholesale markets since 2021. Accordingly, it was primarily the manufacturers who demanded higher purchase prices for their products from food retail companies in order to for their increased production and raw material costs. However, feedback from the food retail companies surveyed on precisely this topic shows that they also approach their suppliers or manufacturers to negotiate and enforce reductions in purchase prices in the event of favorable economic developments (e.g. a decline in energy and raw material costs).

7.2.2. Purchase prices and price trends on international markets

The prices and price trends of international markets for various raw materials are constantly monitored manufacturers in the food industry. These prices, which are formed on or from these markets, represent fixed price components or reference prices in most supply or procurement agreements - between the various stages of the value chain in the food industry - and are used as a basis for negotiating supply or procurement contracts. While in the contractual relationship between food retail companies and food industry manufacturers, it is primarily the distribution of negotiating power that determines the level of purchase prices (see section 7.2.1), in the contractual relationship between food industry manufacturers and agriculture or agricultural input markets, the focus is primarily on supply and demand on the international markets for agricultural products (see section 8). One international food company summarizes this as follows in its response to a request for information:

> *"Where possible, it is our standard practice to our contracts for raw material deliveries to the international indices. Agricultural commodities are always referenced in our contracts*".

However, another food company partially relativizes the importance of international prices, price trends and indices and summarizes this as follows in its response to a request for information:

> *"If the agricultural products we purchase have a strong link to a specific market index, we track this and use it as a reference in negotiations."*

However, regional raw materials or products are sometimes an exception or deviation from international prices, price trends or indices. This usually concerns products or raw materials that are particularly attractive to consumers due to their regional origin and are therefore subject to specific demand (e.g. Styrian apples). In such cases, Austrian prices are often higher than international prices for comparable products that do not a specific regional characteristic, for example. Occasionally, however, there are also situations in which

international prices exceed the prices for comparable Austrian products, usually due to crop failures abroad, for example. In these cases, the international - and therefore higher - prices are often used as a benchmark or basis for price negotiations.

There do not appear to be any international price quotations available for organic products that can be used on a broad basis or as a uniform basis for price negotiations. One producer in the food industry, for example, noted that for the company "*generally available organic market indices* are *difficult to use in the relevant organic sector"* because they are "*not widely available*".

It can be concluded from the above that the influence of international prices, price developments and indices on Austrian producers of agricultural products is very pronounced. Their pricing is therefore heavily dependent on developments on the international markets (e.g. agricultural exchanges), which affect both their revenues and their costs. In addition, dependence on international markets affects not only the food industry but also the upstream stages in the value chain, namely agricultural producers to a particular extent. This fact the findings from various stakeholder discussions, but is also aptly summarized by a producer in the food industry:

> *"The global influence, even on purely Austria-relevant crops such as the scarlet runner bean, is enormous. Why should a farmer grow the scarlet runner bean for the same price if he can get more for another (globally relevant) crop in the same field[?] Of course this increases the price of all agricultural products*."

7.2.3. Mergers, takeovers, other behavior and antitrust court decisions

In addition to the market structure and details of market behavior already discussed in detail above, such as (i) negotiation strategy with food retailers and (ii) purchase prices, notifiable mergers, takeovers of competitors and/or producers at upstream and downstream stages of the value chain and, most recently, decisions by the Cartel Court have had a particular influence on the behavior of individual market participants in the food industry. Various market participants have resorted to takeovers of existing companies or, in some cases, to cooperation or coordination with other companies in violation of antitrust law, mostly in order to expand their market share and sales or to the margins generated and thus revenue or profit.

The following is a detailed overview of the behavior of individual market participants in the food industry that has taken place and been identified in this regard in the past. A distinction is made between (i) takeovers of competitors or mergers and (i) the use of practices that violate antitrust law.

7.2.3.1. Takeovers of competitors and notifiable mergers

In recent decades, the food industry in Austria has seen several acquisitions or takeovers of competitors or producers at upstream or downstream stages of the value chain by competitors. Such acquisitions/takeovers inevitably result in changes to the prevailing market structure and, accordingly, the individual market participants have also had to adapt their market behavior to the new circumstances. This applies to both horizontal mergers[148] and vertical mergers[149].

In the last ten years, there have been various takeovers and mergers affecting the food industry. In this context, there have also been various decisions by the Cartel Court, for example due to the imposition of conditions or obligations to counteract permanent structural changes in the market[150] or due to the prohibited implementation of a notifiable merger[151].

7.2.3.2. Cartels and antitrust court decisions in the food industry

In addition, agreements and/or coordination of behavior between individual or several competing companies or between companies a vertical distribution relationship can lead to restrictions or distortions of competition. Such practices - which are illegal under antitrust law - as well as the choice and dosage of such practices are also attributable to the acting companies as market conduct. Agreements or coordination can come about explicitly (i.e. with formal agreements to form a cartel) or implicitly (i.e. without a formal agreement on the basis of a "common understanding").

In the food industry and upstream or downstream stages of the value chain, the BWB has identified numerous antitrust violations in recent decades and has taken action against them.

[148] i.e. mergers of competitors.

[149] i.e. mergers of companies at different stages of the value chain.

[150] See BWB/Z-2495 and OLG-Wien of 24.02.2015 in 26 Kt 72/14, *Brau Union AG, Vereinigte Kärntner Brauereien AG*; BWB/Z-2495 and OLG-Wien of 24.02.2015 in 26 Kt 73/14, *Brau Union AG, Vereinigte Kärntner Brauereien AG*; BWB/Z-2495 and OLG-Wien of 14.05.2019 in 26 Kt 3/19i, *Brau Union AG, Vereinigte Kärntner Brauereien AG*.

[151] See OLG Vienna of 27.01.2015 to 27 Kt 65/14, *Ankerbrot AG*; OLG Vienna of 27.01.2015 to 27 Kt 67/14, *Ankerbrot AG*.

the cartel court or the higher cartel court imposed not inconsiderable fines on the companies involved. These decisions mainly concerned brewery[152] or dairy[153] or other products[154]. As a result of the successful prosecution of unlawful market behavior under antitrust law, the court decisions clarified which behavior of the market participants is incompatible with antitrust law.

Examples include the cartel proceedings against (i) Anker Snack & Coffee Gastronomiebetriebs GmbH (fine imposed in the amount of EUR 210,000.00), (ii) RAUCH Fruchtsäfte GmbH & Co OG (fine imposed in the amount of EUR 1.700,000.00), (iii) Vöslauer Mineralwasser AG (fine imposed in the amount of EUR 653,775.00) and (iv) BRAU UNION Österreich Aktiengesellschaft (fine imposed in the amount of EUR 750,000.00).[155]

7.3. Market result

7.3.1. Sales prices

In the period between the first half of 2022 and the second half of 2022, there were price increases for all product groups in the BWB basket, as Figure 83 shows. The data on price increases was obtained from a total of 82 companies surveyed in the food industry. As many of these companies are active in several product groups, an additional 163 net sales figures were reported.[156] When interpreting the price trends, it should be noted that the composition of the individual product group (the various items included in it) changed over the period under review - from the first half of 2022 to the second half of 2022.

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[152] See OLG Vienna 29 Kt 31/11, *Stieglbrauerei zu Salzburg GmbH, Stiegl Betriebsholding GmbH*; OLG Vienna 29 Kt 32/11, *Stieglbrauerei zu Salzburg GmbH, Stiegl Betriebsholding GmbH*; OLG Vienna 29 Kt 28/11, *Ottakringer Brauerei AG*; OLG Vienna 29 Kt 29/11, *Ottakringer Brauerei AG*; OLG Vienna 29 Kt 30/11, *Ottakringer Brauerei AG*; OLG Vienna of 15.10.2013 to 25 Kt 104/13, *Brauerei Ried e.Gen.*; OLG-Vienna of 29.01.2014 to 25 Kt 153/13, *Privatbrauerei Zwettl Karl Schwarz Gesellschaft m.b.H.*; OLG-Vienna of 22.01.2014 to 27 Kt 160/13, *Brauerei Schloss Eggenberg Stöhr GmbH & Co KG*; OLG-Vienna of 29.01.2014 to 29 Kt 151/13, *Mohrenbrauerei August Huber KG*; OLG-Vienna of 08.05.2014 to 27 Kt 14/14*, Braucommune in Freistadt*; OLG-Vienna of 19.05.2014, 27 Kt 22/14, *Brauerei Hirt Gesellschaft mbH*; OLG Vienna of 21 May 2014, 24 Kt 25/12-15, *Stieglbrauerei zu Salzburg GmbH, Stiegl Betriebsholding GmbH, Stiegl Getränke & Service GmbH & Co KG*; OLG Vienna of 19 December 2014, 24 Kt 62/14, *Brauerei Jos. Baumgartner GmbH*.

[153] OLG Vienna of 23.01.2013, 29 Kt 77/12, *Berglandmilch eGen*; OLG Vienna of 07.10.2013, 26 Kt 105/13, *Emmi Österreich GmbH*; OLG Vienna of 17.12.2013, 27 Kt 142/13*, Kärntner Milch reg.GenmbH*; OLG Vienna of 26.11.2014, 29 Kt 60/14, *NÖM AG*.

[154] OLG-Vienna of 03.09.2013, 27 Kt 80/13, *Vorarlberger Mühlen- und Mischfutterwerke GmbH*; OLG-Vienna of 08.05.2014, 29 Kt 27/14, *AFS Franchise Systeme GmbH*; OLG-Vienna of 03.03.2015, 25 Kt 76/14, *Vöslauer Mineralwasser AG*; OLG-Vienna of 08.07.2015 to 29 Kt 12/15, *Pago International GmbH*; OLG-Vienna of 03.03.2016 to 26 Kt 2/16, *Rauch Fruchtsäfte GmbH & Co OG, Rauch Fruchtsäfte GmbH*; OLG-Vienna of 11.04.2019 to 25 Kt 1/19p, *Anker Snack & Coffee Gastronomiebe- triebs GmbH*.

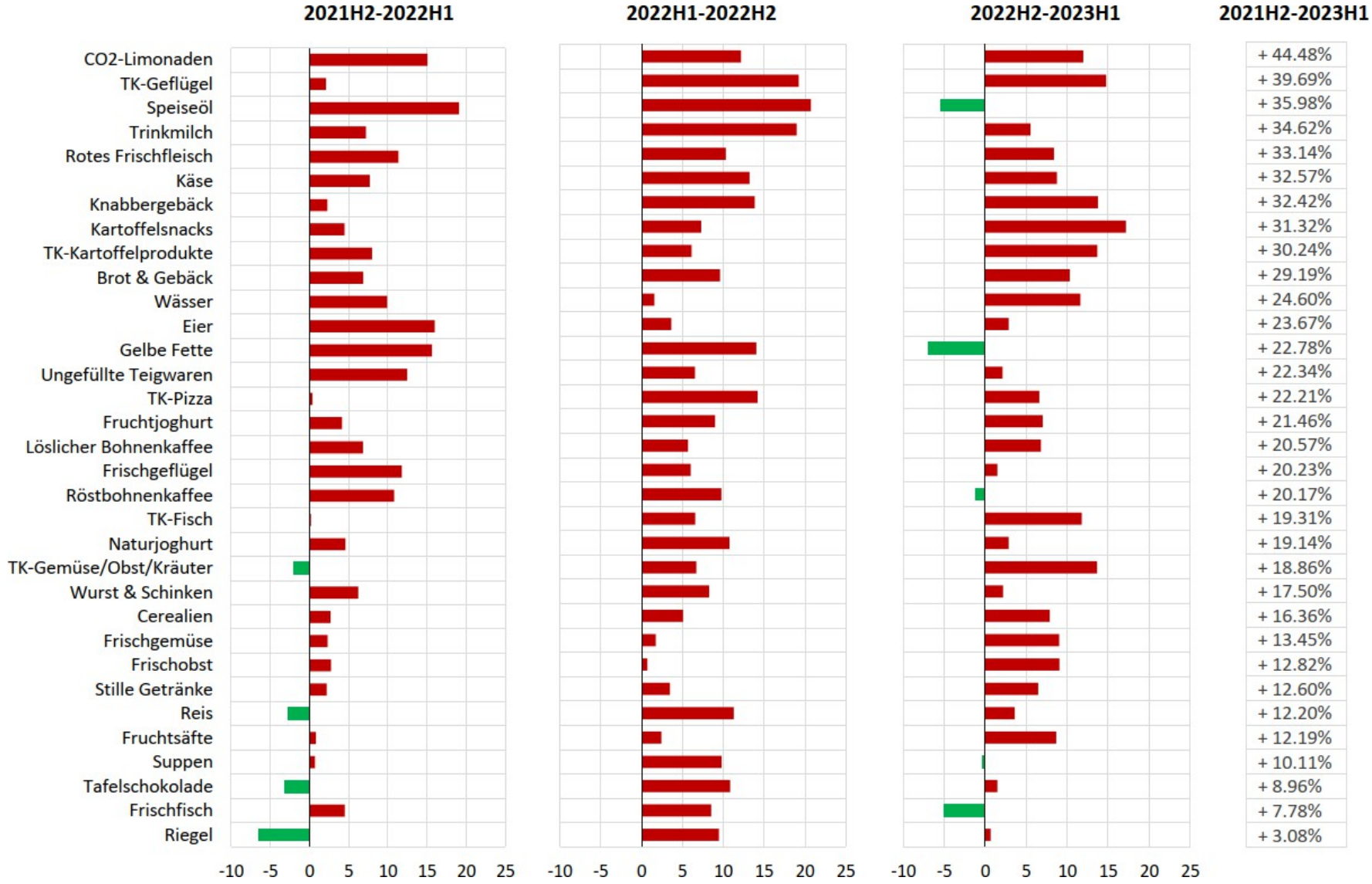
[155] A regularly updated table of fines imposed by the Cartel Court or Cartel High Court in Austria is available on the BWB website at: https://www.bwb.gv.at/recht-publikationen/geldbus- sen.

[156] No data for filled pasta due to the narrow definition, which is why this product group could not be analyzed. The product group does not include chilled filled pasta, which is why the data is sparse.

- may have changed slightly over time, for example due to discontinuations or additions to the range. The figure shows the product groups in descending order according to their average price increases from the second half of 2021 to the first half of 2023.

In the period from the first half of 2022 to the second half of 2022 the price of edible oil, frozen poultry and drinking milk rose by around 20% in the food industry compared to the food retail sector. For other product groups in the BWB basket, such as water, fruit and vegetables, fruit juices and non-carbonated drinks (including soft drinks), there was a price increase of between 1.5% and 3.5% in selling prices in the food industry compared to the food retail sector. In addition, sales prices in the food industry rose by around 5% to 15% compared to the food retail sector for the remaining product groups. Overall, it is clear for the second half of 2022 that many manufacturers in the food industry were able to push through moderate to sharp increases in sales prices compared to the food retail sector. If we look at the subsequent price trends from the second half of 2022 to the first half of 2023 in this context, it is primarily those product groups whose prices had only risen slightly to moderately in the previous six months that have become **comparatively more expensive**. In addition, average prices in five product groups (cooking oil, yellow fats, roasted bean coffee, soups and fresh fish) fell moderately to slightly in the first half of 2023.

Figure 83: Price trends from 2021H2 to 2023H1

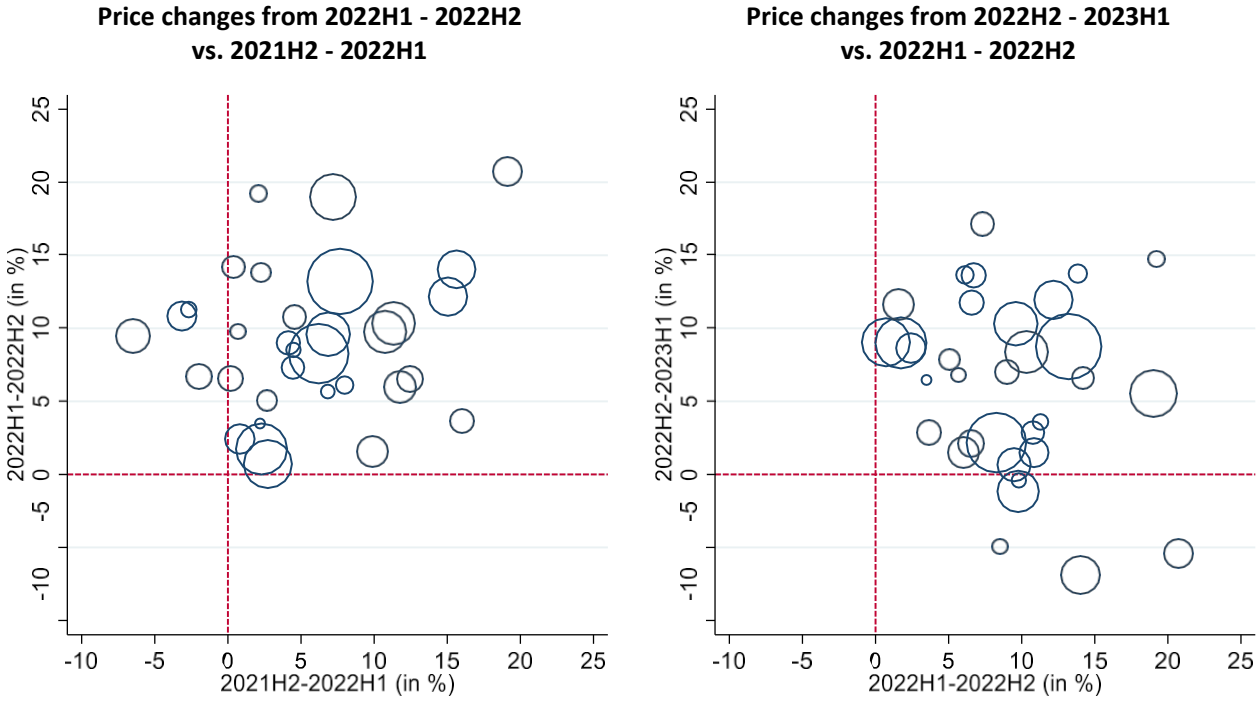


Notes: Data from 82 companies with 163 sales figures. Filled pasta is not shown.

Source: Request for information

The correlation between the extent of price increases in the second half of 2022 and the extent of price increases in the first half of 2023 is graphically in the right-hand chart in Figure 84. The lower the price increase for a product group in the second half of 2022, the more it tended to be in the first half of 2023. There is no discernible correlation between the price increase that occurred in the respective half-years and the importance of the product group in the share of expenditure in the BWB basket (i.e. the size of the rings in the chart). Although individual product groups with a high share of expenditure in the BWB basket also experienced high price increases in at least one of the two half-years, there are also major differences in this respect. **It is therefore not apparent that those product groups that represent a high share of expenditure in the BWB basket - and are therefore of greater importance to consumers - have tended to experience higher price increases in the food industry**[157].

Figure 84: Comparison of half-yearly price changes from 2021H2 to 2023H1



Note: The size of the rings represents the amount of total expenditure over the period from the second half of 2021 to the first half of 2022 in the GfK Consumer Panel. Data from 82 companies with 163 sales figures. Filled pasta is not shown due to missing data.

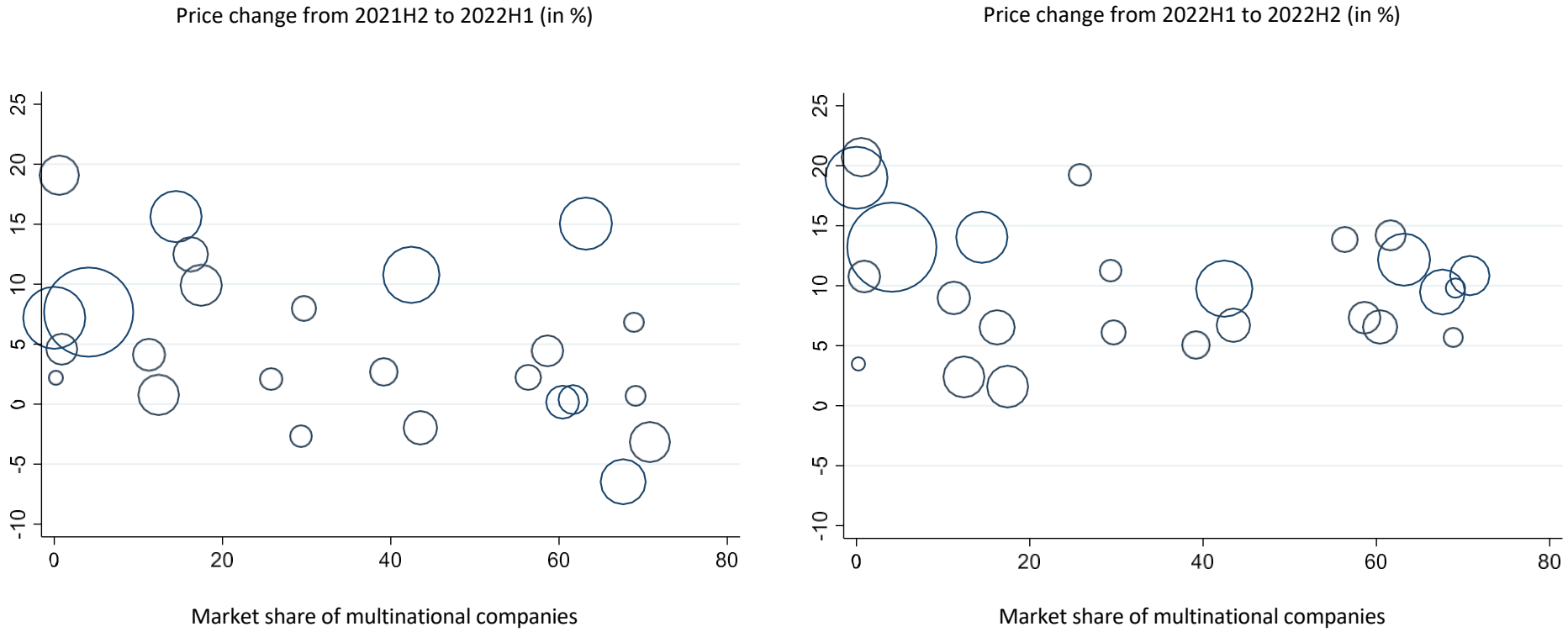
Source: Requests for information, Consumer Panel Services GfK, own calculation.

A correlation between price trends in the food industry and the share of sales of multinational corporations in the respective product groups can only be identified to a limited extent, namely that these initially developed negatively and only developed positively at later points in time. Figure 85 and Figure 86 show this development. In the course of

[157] A scatter diagram with the annual price changes (2022H1-2023H1) and the expenditure shares of the product groups would not paint a clearer picture here.

In this industry analysis, only a visual examination or presentation is made; a causal explanation is not pursued in this case. With regard to the development shown, a catch-up effect of the price level appears to have taken place in those product groups in which multinational groups tend to be significant. In the period from the second half of 2021 to the first half of 2023, however, the importance or relevance of international groups in the product groups did not any overall effect on increases in sales prices.

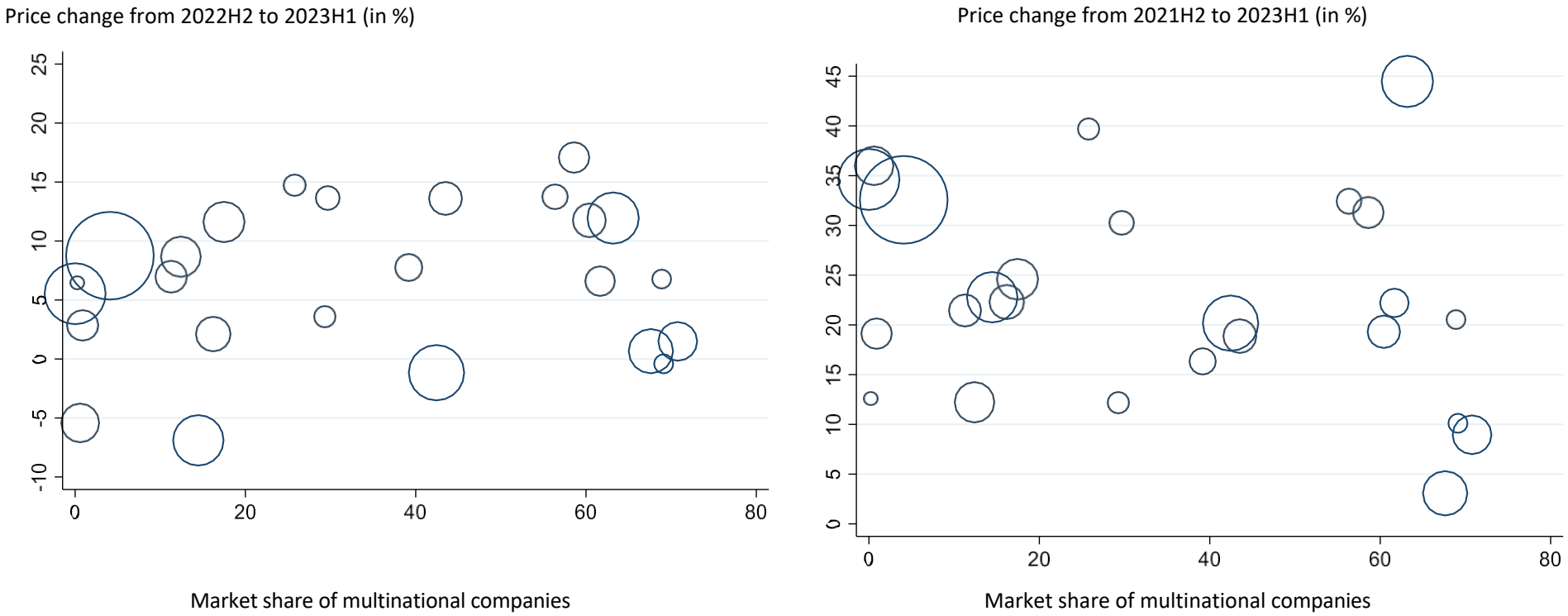
Figure 85: Price trends and multinational corporations (1)



Note: A total of 25 product groups are shown. The size of the rings represents the importance (i.e. turnover) of the respective product group. Filled pasta could not be shown due to a lack of data. Fresh products were excluded as there are no significant multinational corporations as producers.

Source: Request for information.

Figure 86: Price development and multinational corporations (2)



Note: A total of 25 product groups are shown. The size of the rings represents the importance (i.e. turnover) of the respective product group. Filled pasta could not be shown due to a lack of data. Fresh products were excluded as there are no significant multinational corporations as producers.

Source: Request for information.

7.3.2. Purchase prices

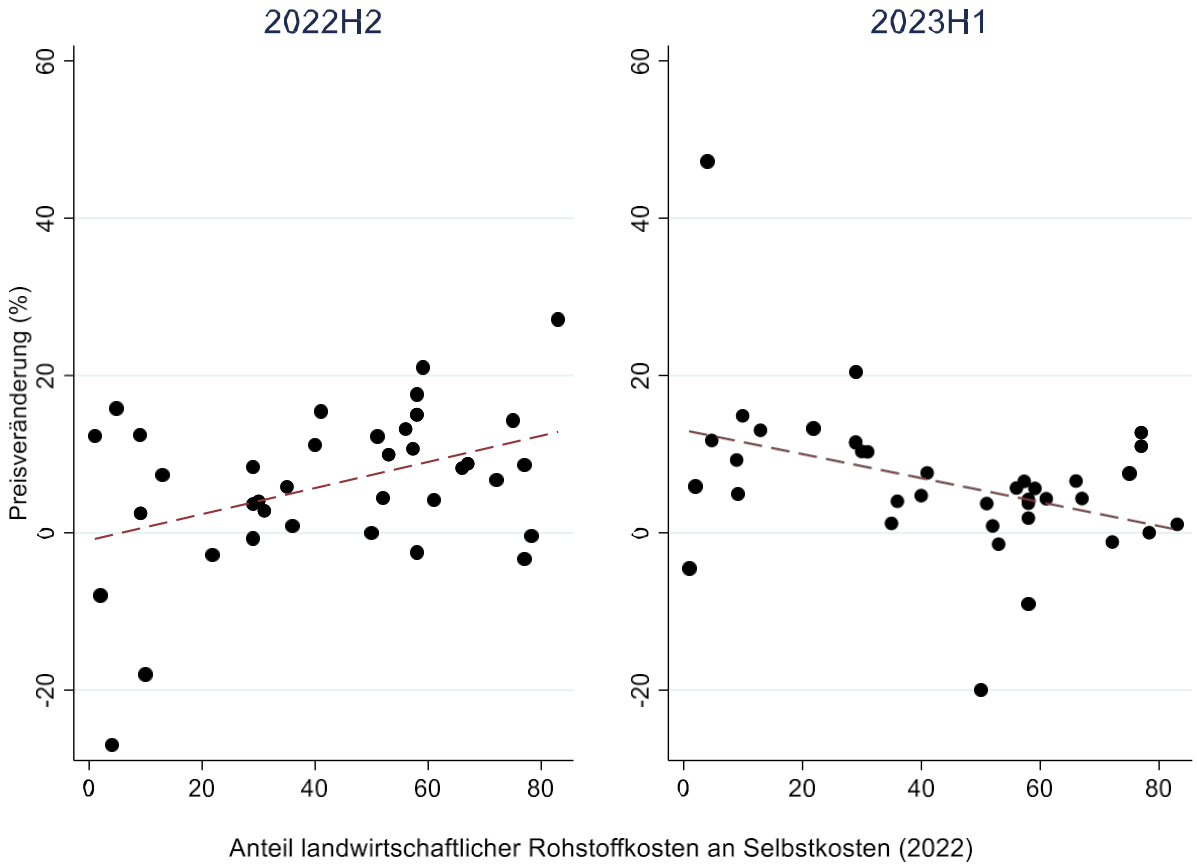
The focus of the sector study was on the food industry and food retail, within the various stages of the food value chain. In order to establish a link or connection between the food industry and agriculture or the agricultural input markets, several requests for information were made to manufacturers in the food industry regarding the cost development of agricultural products and the course of purchase price negotiations. Manufacturers in the food industry often unable to provide any information on agricultural products, as many of these manufacturers had outsourced their production to contract manufacturers or contract bottlers. This also affected the Austrian branches of international producers, which either have their goods produced abroad or purchase them within the group at transfer prices or internal transfer prices for distribution in Austria. Nevertheless, a sufficient amount of data and information is available to provide an overview of the cost development of agricultural products and the purchase price negotiations.

Many manufacturers in the food industry who operate their own production facilities point to **changes in international indices and international markets** when it comes to the cost trends for agricultural products. Unprocessed agricultural raw materials in particular are regularly traded at prices that are determined or set by international exchanges. Despite a few exceptions, price negotiations only play a subordinate role in the area of unprocessed agricultural raw materials and agricultural products. In most cases, these products are purchased at international exchange prices, from which there is hardly any deviation.

In the first half of 2022 in particular, there were sharp price jumps on the international commodity markets. As these also had an impact on the international exchange prices of agricultural products, it was to be expected that the sales prices of those producers in the food industry whose full costs or cost prices have a relatively high proportion of agricultural products would increase. Figure 87 below shows precisely this relationship between the development of sales prices and the corresponding share of agricultural products in the full or cost price. In the second half of 2022 in particular, the increases in sales prices in the food industry are linked to the full or cost price of agricultural products. In the first half of 2023, however, the picture is the opposite, as prices for agricultural products neither fell in the further course of 2022 nor reversed the first half of 2023. As the prices for agricultural products are often formed on the international exchanges - as explained above - they are generally transparent and accessible to all participants at the individual stages of the food value chain. According to feedback from both food retail companies and manufacturers in the food industry, this price transparency has led to a high level of acceptance of demands

After price increases in the food industry, but after the fall in commodity prices for agricultural products on the international stock exchanges, prices in the food industry fell again.

Figure 87: Price change of surveyed companies and agricultural commodity costs



Note: In the left graph, the estimated slope of the regression line is 0.16 (Std. error=0.062, p-value=0.012), in the right graph it is -0.15 (Std. error=0.061, p-value=0.018).

Source: Request for information.

The most important agricultural product in the production of dairy products is milk as a raw material. Manufacturers in the corresponding product groups (drinking milk, natural yoghurt, fruit yoghurt, yellow pallet and yellow fats) stated that the proportion of raw milk in the cost price is around 35% to 70%, depending on the degree of refinement of the subsequent production. Other manufacturers in the bars (incl. chilled bars) and chocolate bars product groups also stated that the share of milk or dairy products in the cost price was between 7% and 20%, which is not negligible. According to the data collected, the share of milk in the cost price either remained the same or increased slightly in 2022 compared to the previous year. In many cases, the raw material costs for milk therefore increased - at least - to the same extent as other cost components in the cost price, such as energy costs.

Milk. The Kieler Rohstoffwert Milch is regularly used as a reference price for this raw material[158], but the Global Dairy Price Index and the BLE milk price are also used in some cases.[159] The Kieler Rohstoffwert Milch experienced an increase of around 80 percent between August 2021 and April 2022, see 88. The cost of raw milk is strongly influenced by this index, so the price trend mainly affected dairies. However, it should be noted that almost all large dairies in Austria are organized as cooperatives and are therefore generally owned by the supplying dairy farmers. The selling prices for milk have developed in favor of dairy farmers due to the upward movement of the Kiel commodity value from the end of 2021. According to AgrarMarkt Austria (AMA), producer prices for farm-gate milk (at 4.0% fat and 3.4% protein) rose continuously from January 2021 to December 2022 with few exceptions, namely from just under 40 cents/kg in November 2021 to just under 60 cents/kg in December 2022. From January to June 2023, the price fell again to just over 50 cents/kg.[160]

Figure 88: Kiel commodity value of milk ex farm, 4.0% fat and 3.4% protein (in cents/kg milk)

Note: The index refers to a standard milk with 4.0% fat and 3.4% protein from the milk producer's farm without value-added tax. Average recording costs and ancillary costs of recording from the milk producer to the dairy amounting to 1.6 cents per kg of milk are taken into account. The raw material value of milk free on ramp is higher by exactly this amount, as this cost item is not taken into account.

Source: ife Kiel.

The prices for both starch and glucose are influenced by the development of grain prices or are closely linked to them. According to various manufacturers of cereals, potato-based products and cocktail cookies, the pro rata cost price for the raw materials grain or flour is around 4% to 7%; for at least one international food group, the pro rata cost price is between 4% and 7%.

[158] The Kieler Rohstoffwert Milch is published monthly by the ife Institut für Ernährungswirtschaft Kiel.

[159] The Federal Office for Agriculture and Food (BLE) in Germany publishes monthly milk prices on its website: https://www.ble.de/DE/BZL/Daten-Berichte/Milch-Milcherzeugnisse/_functions/TabelleMilchpreiseMo- nat2023.html

[160] See https://www.ama.at/marktinformationen/milch-und-milchprodukte/aktuelle-informationen/2023/erzeuger- milk-price-milk-delivery

cost price of starch is around 4% to 5%. In addition, one fruit juice producer stated that the proportionate cost price of glucose was around 10% to 17%. From the responses received to the requests for information, it is clear that the share of the cost price of grain, flour, glucose and starch in the total costs in 2022 has increased compared to the previous year, but this does not only apply to these raw materials, but also to oilseeds used for the production of edible oils (e.g. rapeseed with a share in the production of edible oils of around 60% to 80%).

Cereals and oilseeds. Several companies stated that the Euronext Paris trading venue with various MATIF indices provides important reference values in relation to the market fruit sector, in particular the MATIF Cereals Index, the MATIF Rapeseed Oil Index and the MATIF Wheat Index. In addition to the MATIF indices, there are various other indices, and the wheat indices on the Chicago Board of Trade (CBoT) and the Vienna Stock Exchange were also mentioned particularly frequently by the companies surveyed. Wheat and maize indices on all three of these exchanges are published by the AMA on its website and updated weekly.[161] The price development of these commodity indices also influences the prices of other commodities, e.g. the MATIF indices for wheat and maize are important factors influencing the price of glucose. Figure 89 shows the development of the MATIF grain index from January 2021 to June 2023 with a clear increase of around 50% from the middle to the end of 2021. After a slight downward trend for around three months**, there was a sharp rise of around 60% within a short period of time at the end of February 2022** due to the Russian war of aggression against **Ukraine**. This sharp price increase was due to the expected shortage of wheat supplies. Grain prices at a high level for several months, only starting a downward trend mid-June 2022, which was briefly interrupted. Around a year later, the grain index was back at the same level as around two years previously. The price trend for rapeseed oil is similar to the price trend for grain described above, which can be seen in Figure 89.

[161] See https://www.ama.at/marktinformationen/getreide-und-olsaaten/aktuelle-informationen

Figure 89: MATIF grain index (76 kg/hl)

Note: The full name of the index is *Milling Wheat N2 Futures*. The index is given for a weight of 76 liters of grain. The indication kg/hl reads "*kilogram per hectoliter*".

Source: investing.com

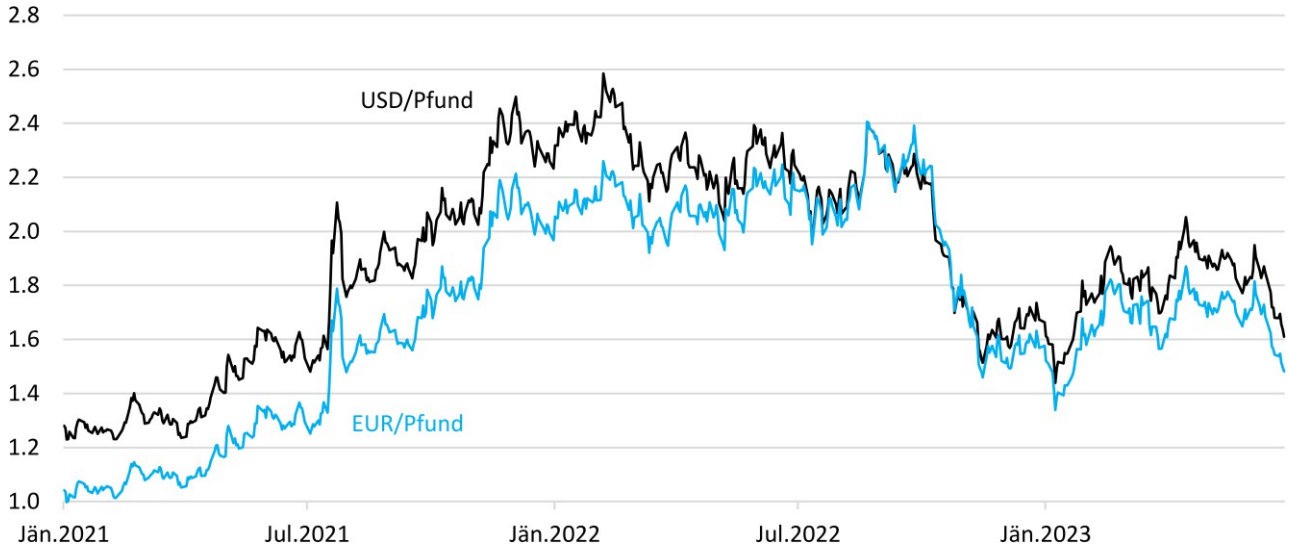
Various manufacturers of coffee and chocolate-based confectionery (bars and chocolate bars) cite the London and New York commodity futures exchanges as the most important for coffee and cocoa prices. For coffee manufacturers, the cost of coffee accounts for around 50% to 80% of the cost price, while the cost of cocoa accounts for around 10% to 40% for manufacturers of chocolate confectionery (bars and chocolate bars). The costs of coffee in particular rose considerably in 2022, with the share of coffee costs in the cost price increasing by several percentage points in some cases. However, the relative share of costs for cocoa in the production of cocoa products (e.g. cocoa mass and cocoa butter) has hardly changed.

Coffee. Coffee is generally traded on the stock exchanges in USD. Figure 90 shows the global benchmark for Arabica coffee prices from the beginning of 2021 to the first half of 2023 in both dollars and euros per pound. This benchmark is traded exclusively in New York, while the benchmark for Robusta varieties is only traded in London. Prices doubled in the period from January to December 2021 and remained consistently high for much of the following year. In the course of 2022, the depreciation of the euro against the dollar was an additional price driver for European coffee companies.[162] From October 2023, there was a price slump, but the price of coffee remained at a relatively high in the first half of 2023 - compared to the first half of 2021. As coffee is produced by the various manufacturers in the

[162] In fact, the euro price of coffee largely stagnated from January to mid-August 2022, while the dollar price fell by between 10 and 20 cents.

As coffee usually purchased around six months in advance, the price increases did not have a negative impact on manufacturers until the end of 2021/beginning of 2022.[163] Overall, the selling prices of soluble coffee beans and roasted coffee beans rose by just over 20 percent from the second half of 2021 to the first half of 2023. In the period from the first half of 2022 to the second half of 2022, there was a price increase of around 20% in the selling prices of cooking oil, frozen poultry and drinking milk in the food industry compared to the food retail sector. For other product groups in the BWB basket, such as water, fruit and vegetables, fruit juices and non-carbonated drinks (including soft drinks), there was a price increase of between 1.5% and 3.5% in selling prices in the food industry compared to the food retail sector. The sales prices in the food industry compared to the food retail sector for the remaining product groups also all rose by around 5% to 15%. Overall, it is clear for the second half of 2022 that many manufacturers in the food industry were able to push through moderate to sharp increases in sales prices compared to the food retail sector. If we look at the subsequent price trend from the second half of 2022 to the first half of 2023 in this , it is primarily those product groups whose prices rose only slightly to moderately in the previous six months that have become comparatively more expensive. In addition, the average prices in five product groups (cooking oil, yellow fats, roasted bean coffee, soups and fresh fish) fell moderately to slightly in the first half of 2023 (Figure 83), which can certainly be explained by higher coffee prices on the international exchanges over this entire period.

Figure 90: Coffee price in USD and EUR/pound (04.01.2021-30.06.2023)



Note: US Coffee C Futures (Dec 23). The Coffee C contract is the global benchmark for Arabica coffee. The value refers to US cents per pound (453.6g) of coffee.

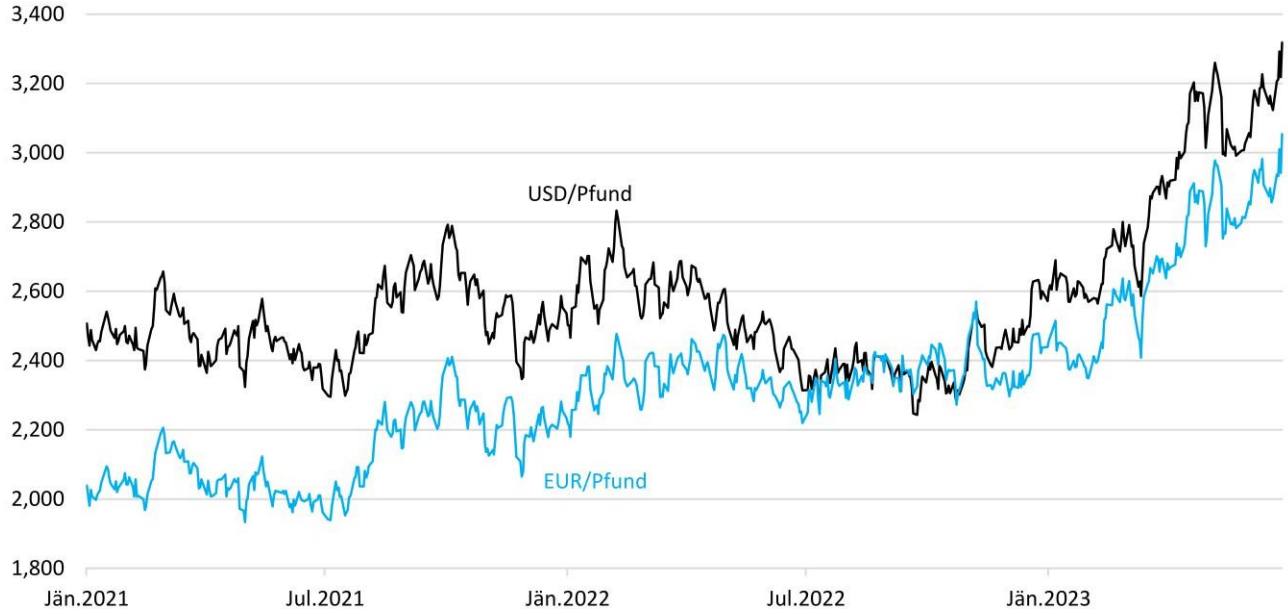
Source: investing.com, ECB, own calculation.

Cocoa: Like coffee, cocoa is generally traded on the stock exchanges in USD. From the descriptions of a manufacturer of bars and chocolate bars, there are two common price formulas for the purchase of raw cocoa and cocoa butter, which are frequently used in procurement contracts. For raw cocoa

(163) A concise description of the coffee trade can be found on the Tchibo/Eduscho homepage: https://www.edu-scho.at/kaffee-akademie-kaffeeboerse-c402035640.html

a raw cocoa differential is applied so that a fixed amount is added to the respective exchange price ("futures market plus X"). In contrast, a cocoa butter ratio is used for cocoa butter, in which the exchange price is multiplied by a predetermined factor ("futures market times X"). Compared to a differential, a ratio amplifies the effect of price fluctuations. The global benchmark for the price of cocoa is traded in New York. Figure 91 shows the price development of this benchmark from January 2021 to the first half of 2023 in both dollars and euros. In the first half of 2022, the cocoa price (EUR) rose by between 10% and 20% compared to the first half of 2021 and remained at this higher level in the second half of 2022. While the sales prices of chocolate bars and bars fell in the first half of 2022 compared to the previous half year, the average prices in both product groups increased by almost 10% in the second half of 2022 (Figure 83). In the first half of 2023, average prices in both product groups remained largely unchanged. Due to futures contracts, in which the sale of cocoa is agreed or hedged several months in advance, changes in cocoa prices are only in sales price changes with a delay.

Figure 91: Cocoa price in USD and EUR/ton (04.01.2021-30.06.2023)



Note: US Cocoa Futures (Dec 23). The US cocoa future represents the benchmark on the global cocoa market. The value refers to US dollars per ton of cocoa.

Source: investing.com, ECB, own calculation.

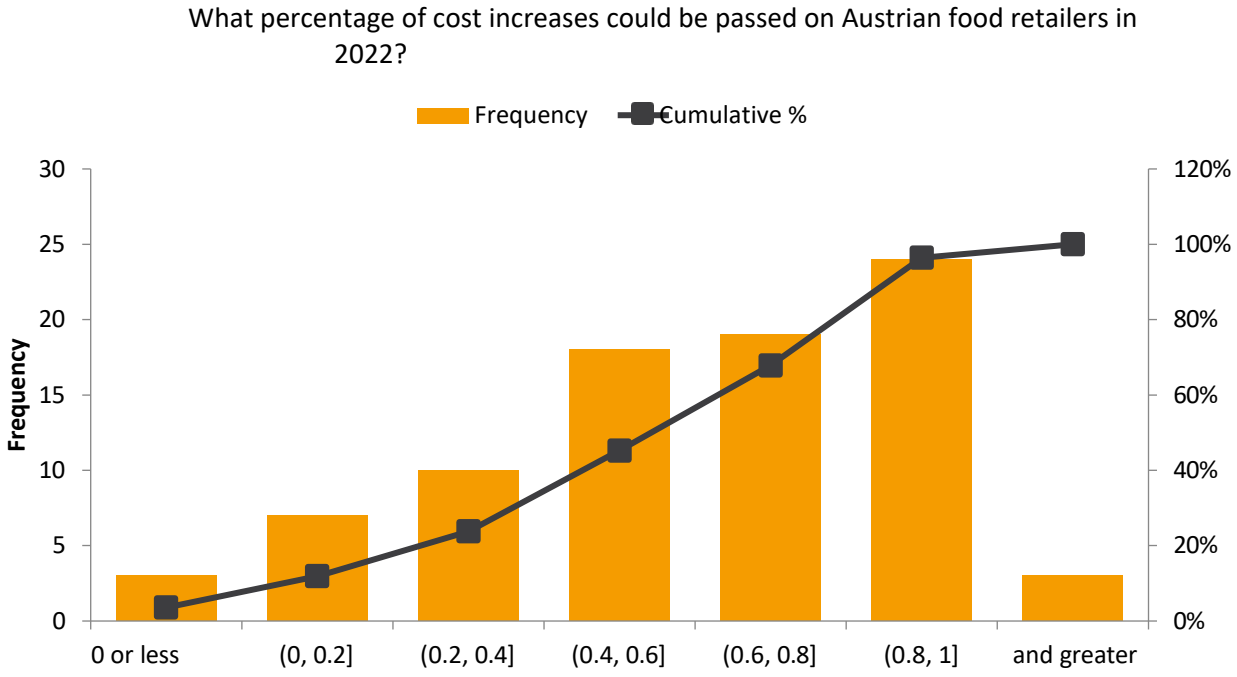
In addition to the exchange prices mentioned above, many other products are also traded on the exchanges. These include not only pigs, cattle, tropical fruit, palm oil and sugar, for example, but also electricity and fuel prices are formed on exchanges. Agricultural and commodity markets are strongly influenced by international developments and therefore usually have a direct impact on purchase prices in the food industry. In stakeholder discussions, BWB responded to related questions by stating that the development of costs for agricultural products in the food industry can be sufficiently well approximated by the development of international indices for agricultural goods. The correlation between the cost share of agricultural products in the cost price and the corresponding stock market price developments, as described qualitatively above, underpins this assumption and statement.

However, several producers qualified their responses by stating that for some agricultural products, the importance of international developments and market prices are not decisive. It was noted, for example, that the prices of fish, vegetables and poultry are regularly renegotiated between producers and buyers and that exchange prices are not necessarily a factor to be taken into account. Nevertheless, it seems absurd that demands in price negotiations are made or negotiated completely detached from international developments and exchange prices.

7.3.3. Passing on costs

In two requests for information, manufacturers of branded goods and fresh produce were asked for their feedback on the extent to which they were able to negotiate and pass on their own cost increases to Austrian food retailers in the years 2019 to 2022 and in the first half of 2023. As Figure 92 and Figure 93 show for 2022 and the first half of 2023, **around 55% of the 84 companies surveyed** were able to **pass on at least 60% of their cost increases to food retailers in 2022**. In the first half of 2023, this was even achieved by around 60% of companies. Only around 3.5% in 2022 (i.e. three companies) and 2.5% in the first half of 2023 (i.e. two companies) stated that they were able to pass on more than 100% of their cost increases to the food retail sector. These companies operate in the product groups **roasted coffee beans, bars (incl. chilled bars) and potato-based products**. These three companies each have a **strong brand** (i.e. high brand awareness). For one of these companies, the **EBITDA margin rose sharply in 2022**. For the other two, it decreased slightly. In turn, only one of these three companies has forecast a slight increase in the EBITDA margin for 2023. However, none of these companies were able to reach 2019 or 2020 levels in 2022.

Figure 92: Passing on costs in 2022

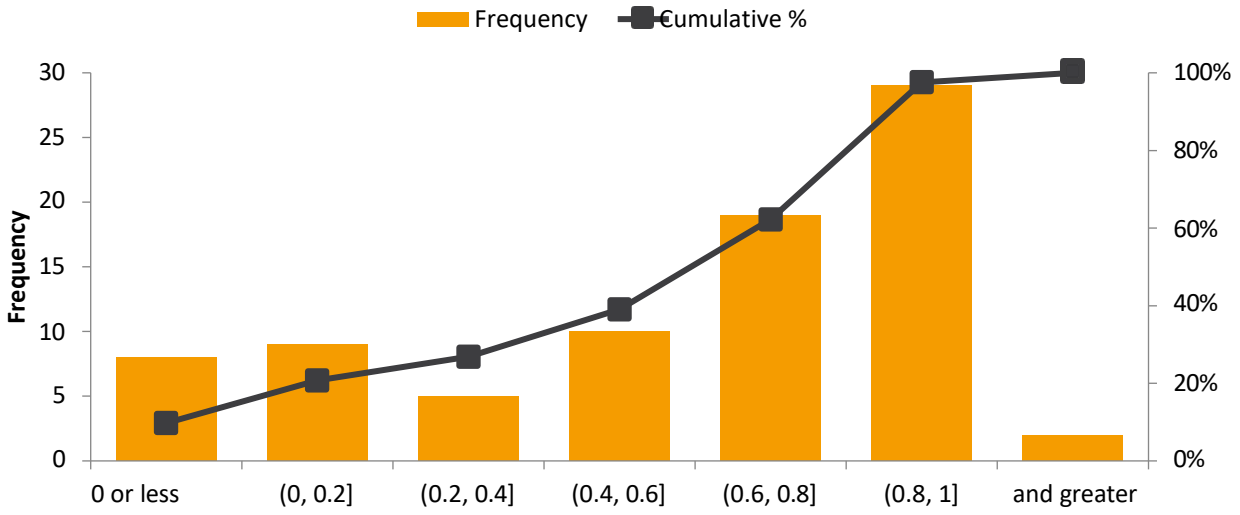


Note: n=84.

Source: Request for information.

Figure 93: Passing on costs in the first half of 2023

What percentage of cost increases could be passed on Austrian food retailers in the first half of 2023?



Note: n=82. Two companies were unable to information for the first half of 2023, but were able to do so for 2022.

Source: Request for information.

In summary, the suppliers' assessment of the extent of cost pass-through does not allow the conclusion that they have been able to increase their profits across the board since 2021. In individual cases, more than the cost increases could be passed on, so that profit increases at a few companies since 2021 are quite conceivable. Whether this is true and whether these are historically abnormal developments will therefore be discussed in the next subchapter and the central question regarding the development of profit margins will be answered.

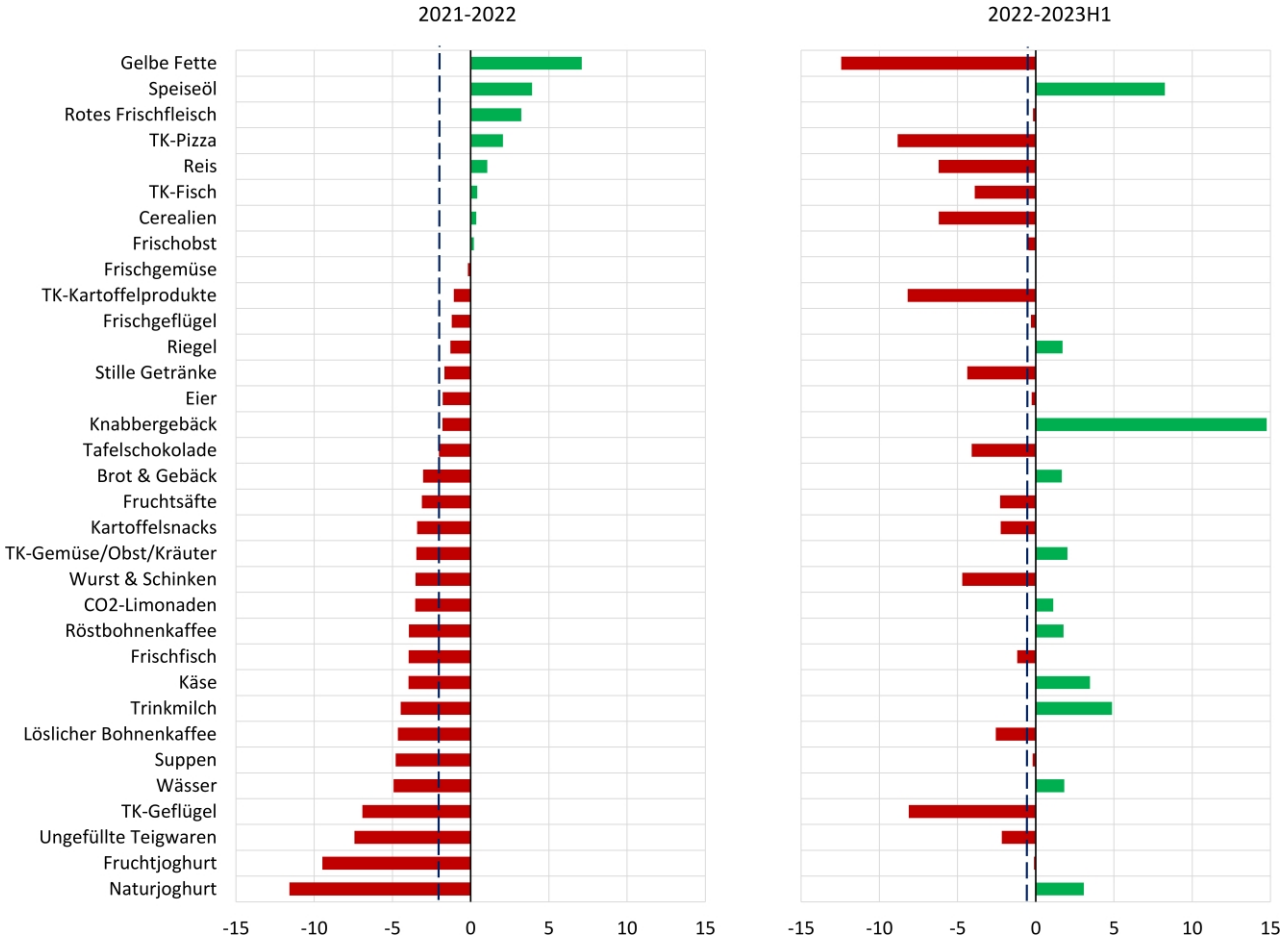
7.3.4. Profit margins

The requests for information not only asked for net sales prices or turnover from selected suppliers, but also for cost prices (according to full cost accounting). However, some companies were not in a position to provide precise cost prices. Instead, they provided the BWB with data on cost of goods sold, gross mark-up, variable production costs or, for example, meat costs or egg costs. As a result, the costs submitted by these companies do not include energy costs in particular, which rose sharply in 2022. As the majority of the companies were able to state the cost of goods sold in addition to the sales figures provided, the profit margins was used throughout the following, although for some companies these merely trade margins, mark-ups or contribution margins. These imprecisions were taken into account in the analysis.

The development of the **profit margins of the suppliers surveyed is highly dependent on the product category** and can range from an increase of just over 7% for yellow fats (e.g. butter and margarine) to an increase of just over 7% for white fats.

to a decline of more than 11% for natural yogurt (Figure 94). Of the 33 product categories, profit margins increased for 8 and decreased for 25.[164] If all suppliers are aggregated, this results in a decrease in the weighted profit margin of around 2.25% from 2021 to 2022. However, the actual decline in the profit margin is likely to have been higher, as for some companies it was not possible to allocate significant fixed costs (e.g. energy) to specific product groups and these are therefore not included in the cost data provided.

Figure 94: Changes in product group-specific profit margins (%P)



Notes: In the "Edible oil" product category, one manufacturer was removed as an outlier whose profit margin was strongly negative in 2021. Filled pasta was not included due to the scarcity of data. The dashed lines show the weighted change in profit margin: (i) 2021-2022: -2.25 %P, (ii) 2022-2023H1: -0.26 %P.

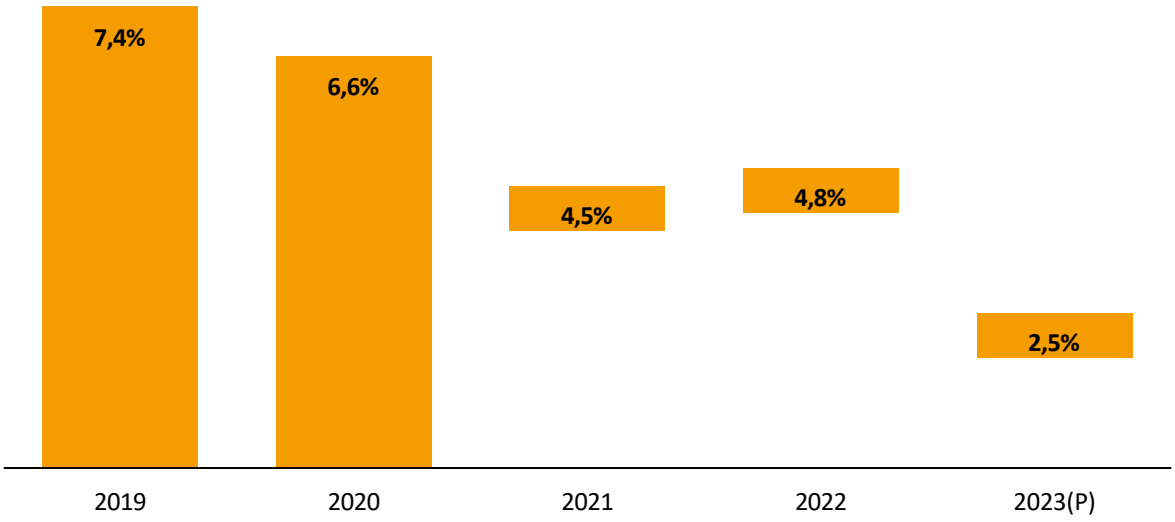
Source: Request for information; own calculations.

Profit margins increased in 11 product groups in the first half of 2023. These fell in the remaining 22. If the suppliers are considered in the aggregate, there was no notable change in the weighted profit margin. Two product groups should be highlighted, namely edible oil and snacks. The profit margin for edible oil was lower in both 2021 and

[164] Due to the very sparse data available for filled pasta, this product category was not included in the calculations.

negative in 2022. In 2023, the profit margin improved by just under 8% compared to the previous year. A comparison of net sales and costs from 2021 to the first half of 2023 shows that the edible oil industry in the red overall over this period. The improvements in the profit margin in 2022 and the first half of 2023 therefore only show a return to a profitable path, which is essential for the viability of any industry. Figure 95 the development of the weighted EBITDA margin of the companies surveyed in the edible oil industry. EBITDA is suitable for assessing the profitability of a company's business operations and for comparison with other companies in the same industry in Germany and abroad. Particularly in capital-intensive industries, high replacement investments must be made regularly, which requires sufficiently high EBITDA amounts in to remain profitable in the long term. Profitability in the edible oils industry fell by around 2% from 2019 to 2022, a slight recovery in 2022. In 2023, however, some of the companies surveyed a sharp decline in the EBITDA margin. For one company, the contribution margin of a well-known olive oil product became strongly negative in the second quarter of 2023, which is why a correspondingly negative forecast was communicated for 2023 as a whole.

Figure 95: EBITDA margin of the companies surveyed in the edible oils industry

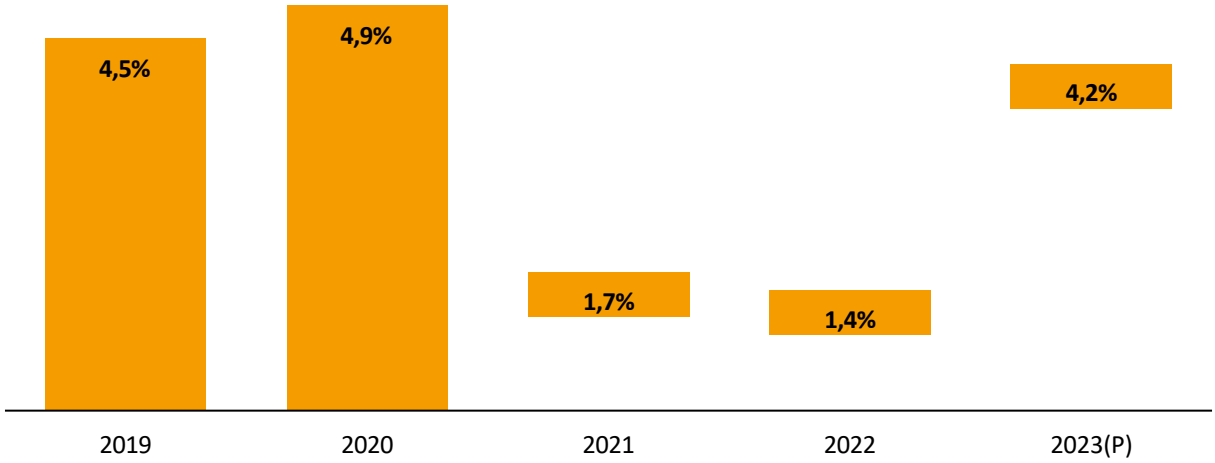


Note: The calculation is based on data from five companies in the edible oil industry. One further company was excluded as its core competence is not in edible oil.

Source: Request for information.

A total of three companies were surveyed in the snacks industry. The aggregated EBITDA margin is shown in Figure 96. The drastic increase in profit margins in the snacks product group in the first half of 2023 in Figure 94 can probably be explained primarily by a relatively low starting value for prices, as the EBITDA margins were very low, especially in 2021 and 2022, compared to 2019 and 2020. According to the manufacturers' forecasts, the higher profit margins in the product groups in the first half of 2023 will lead to a return of EBITDA margins to pre-2021 levels.

Figure 96: EBITDA margin of the companies surveyed in the snacks industry



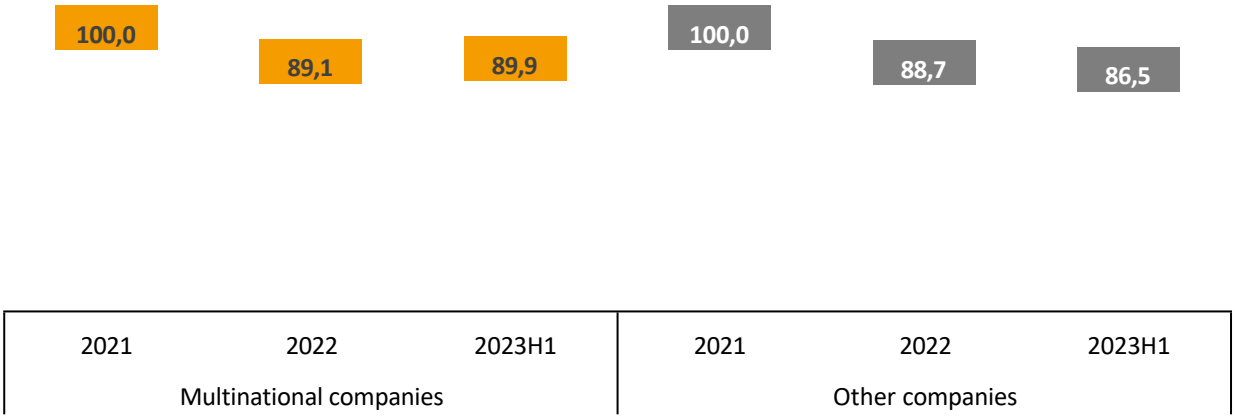
Note: The calculation is based on data from three companies in the snacks industry. The core competence of one company does not lie in this segment.

Source: Request for information.

The individual presentations of companies in the edible oil and snacks industries show that the BWB did not find any increase in product-specific profit margins in a historically abnormal manner, such as in the BWB sector inquiry into the fuel market in 2022**. Overall, the BWB did not observe any competitively questionable increases in the profit margins of the food industry in the product groups analyzed.**

Finally, the differences in the development of profit margins between multinational corporations and other companies surveyed will be briefly outlined. In total, the BWB has complete data from 21 multinational companies with which the profit margins can be calculated. A comparison is made with 60 other companies that cannot be described as multinational according to BWB's definition (see Table 12). Figure 97 shows the development of weighted profit margins across all product groups for multinational companies and other companies from 2021 to the first half of 2023. Both groups suffered losses of around ten percent in 2022. In the first half of 2023, the multinational corporations recorded a small improvement in profit margins of less than one percent, while the other companies also suffered year-on-year losses in the first half of 2023. Overall, however, it cannot be said that multinational companies used the inflationary environment and geopolitical tensions in 2021 and 2022 as well as in the first half of 2023 to significantly increase their profit margins.

Figure 97: Development of weighted profit margins between 2021 and 2023H1



Note: The calculations data from 81 companies, 21 of which are classified as multinational companies.

Source: Request for information, own calculations.

7.4. The "Austrian" surcharge

In an ideal European single market, prices for identical products in different countries of the European single market should be approximately the same under similar conditions. The reality that emerges from this sector study is far removed from an ideal market. In fact, even within the EU internal market there are different price levels for foodstuffs. At regular intervals, the **Chamber of Labor** has addressed the issue of a so-called Austrian mark-up by presenting price differences in foodstuffs between Austria and Germany. It has often remained unclear in the public debate at which level of the value chain the differences in pricing occur.

The actual existence of a price difference compared to Germany has already been scientifically investigated, most recently in the ECB Working Paper[165]. The OeNB researchers analyze price differences in a 60 km wide border area between Austria and Germany. They come to the conclusion that many products have different prices despite open borders. There are therefore **significant price differences the border**. Within the borders of the respective country, however, food retailers operating in Austria and Germany have similar prices. These results alone suggest that there is targeted price differentiation across borders, although geographical borders still have an influence on pricing.

As part of the industry survey, **BWB collected market information** contributed to the discussion surrounding an Austrian surcharge. In addition to insights into the negotiation process between the Austrian food retail sector and suppliers, specific

[165] Messner, T., Rumler, R., Strasser, G. (2023): Cross-country price and inflation dispersion: retail network or national border? ECB Working Paper Series No 2776 / February 2023. https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2776~ed7ac4620d.en.pdf?c6659f2b457cc0f6a4490840f8a0a150

Questions on national price differences. The **five largest food retailers** answered the following question in response to the request for information dated 24.7.2023: Question 6 "*Please explain conclusively to what extent your group sets different prices for similar products in Austria and Germany.*" **54 branded goods manufacturers** (response rate 76%)[166] answered the following questions in response to the request for information dated 27.7.2023: Question 26 "*Do you follow different pricing strategies in different European countries?*" and Question 27 "*Please describe the differences in these pricing strategies and the reasons behind them. Also try to quantify these differences and, if necessary, elaborate on differences between different products.*". The feedback for food retailers is presented in section 7.4.1 and for suppliers in section 7.4.2. For the sake of good order, however, it should be mentioned that the BWB has no investigative powers relating to the German market. It is therefore not possible to conclusively quantify the various influencing factors.

The BWB surveyed price and condition negotiations for annual talks and price changes during the year - the latter usually take place with a lead time of one quarter and a defined justification - between suppliers and food retailers. In the food sector, these negotiations are usually conducted **at national level**. The market delimitation under antitrust law also assumes a **national market delimitation** for the procurement market for food retailers.([167]) It is therefore understandable that the results of negotiations can differ on different national markets with different conditions.

In the case of **multinational branded goods manufacturers**, however, these could also be supported by negotiations at EU level, for example with European purchasing alliances. In June 2023, the European Commission clarified in its revised Horizontal Guidelines[168] what groups of independent retailers, retail chains or retail groups (these purchasing alliances) can do under EU competition rules.[169] In principle, it should be noted that European purchasing alliances, which cover several Member States, enable retailers to compare purchase prices of products across the EU and reduce wholesale price differences between Member States through joint negotiations with manufacturers.

[166] When answering these two questions, the quality of the was found to be lower, particularly in the case of pure sales branches. Sales may also be outsourced to an external distributor.

[167] See EK COMP/M. 3464 of 15. 11. 2004 - "Kesko / ICA"; BKartA/B9-27/05 of 25.8.2005 - "EDEKA Zentrale AG & Co. KG"

[168] https://ec.europa.eu/commission/presscorner/detail/de/IP_23_2990

[169] The Horizontal Guidelines state that effective competition between retailers downstream is a precondition to ensure that retailers pass on to final consumers the lower wholesale/purchase prices or cost reductions they obtain through their alliances. Effective competition at the retail level requires not only that retailers compete with each other, but also that consumers actively seek out the best alternatives or lowest prices, thereby rewarding the retailers that offer such alternatives or lower prices.

From the perspective of food retailers, negotiations beyond the national level would strengthen their negotiating power vis-à-vis large multilateral producers. Multinational suppliers, on the other hand, say that negotiations at national level tend to be closer to the cost developments of individual products or local components and that they prefer national negotiations. Among other things, these negotiations form the basis pricing policy on the downstream food retail market in the individual countries.

7.4.1. Viewpoint of the food retail trade

From the requests for information, the perspective of food retailers can summarized as follows: **The pricing policy for end consumers in Austrian food retailing is autonomous compared to neighboring countries**. For important parts of the product range, the pricing policy is based on relevant competitors. is very important that consumers are not given the impression that they are more expensive than the alternatives available to them. End consumer prices are therefore dependent on the competitive environment, whereas neighboring countries would play a lesser role in the pricing policy for the end consumer.

According to the food retail trade, the proven price difference between Austria and Germany results in particular from the following factors:

- different purchase prices on the part of suppliers;
- Supply/branch density; [170]
- Other topography;
- Non-wage labor costs, collective agreement shares;
- doctoral shares; [171] or
- different VAT rates.

The possible explanations supply density, topography and labor costs have more of a fixed cost character and would have to be covered by higher gross margins, otherwise profits would fall. Differences in purchase prices, promotion shares and sales tax rates, on the other hand, tend to have the character of variable costs.

The BWB has calculations from a food retailer that analyzes the aforementioned price comparison of the Chamber of Labour for week 21 in 2023 for itself. The basis is not only those products defined by the Chamber of Labor, but all transactions - VAT

[170] The BWB market survey (see point 9.1) showed that quick accessibility associated with high store density is a key decision factor for consumers and that this can only be compensated for by high monetary compensation. It remains to be seen whether a shift towards online grocery retail will bring changes here in the future.

(171) The BWB market survey (see point 9.1) showed that although consumers would generally prefer permanent low prices to discounts, is still an emotional component. Promotions can therefore be a quickly effective instrument for food retailers when competing for individual customers.

and promotions are deducted. The actual purchase prices paid to suppliers and the actual net sales prices to end consumers are compared between Austria and Germany in the same period under review. The result shows that the actual **net sales prices in Austria** are **[10-15]% higher than those in Germany.** Some inaccuracies are still possible, as the transactions in Austria and Germany are based on a different basket of goods (product groups, proportion of organic products, proportion of regional products, etc.). Nevertheless, the result roughly corresponds to the findings of the aforementioned ECB Working Paper, with prices in Austria 13% higher on average, although products rather than actual sales were compared there. If the original consideration of the food retailer is supplemented by the associated purchase prices actually paid, this results in a delta of [0-1]% points between the actual purchase prices and net sales prices in the comparison between Austria and Germany. This can be cautiously interpreted as "only" a slightly higher gross margin margin in Austria - BWB has not compared the gross margins of food retailers between Austria and Germany, as BWB does not have any investigative powers relating to the German market.

This observation is interesting, as possible explanations (see point above on possible reasons for price differences between Austria and Germany) such as supply density, topography and labor costs, which act as fixed costs, would be covered by this "only" slightly higher gross margin margin in Austria.[172] **Other possible explanations with variable costs, namely VAT and promotion, have already been deducted and therefore cannot explain this price difference either.** The significance of these possible explanations for the price difference between Austria and Germany therefore appears to be rather low in view of the calculation provided by BWB, even if the calculation does not systematically address this issue –
it refers to a short period of time and compares different shopping baskets. So that
the driving factor appears to be the [10-15]% higher net purchase prices for food retailers in Austria,[173] and purchase prices are an important component of the so-called Austrian surcharge.

In fact, food retailers and wholesalers are currently criticizing different national purchase prices for the entire EU internal market[174]. In some cases, they would be confronted with territorial supply restrictions enforced by multinational suppliers. Since the geo-blocking regulation was introduced in 2018, discrimination on the consumer side has been prohibited; there is no analogous regulation for the business side (B2B). These practices would have a significant impact on competition and lead to an estimated annual loss of

[172] It is true that the reportedly higher fixed costs in Austria could also have other effects, such as lower net margins. However, as long as this does not directly affect end consumer prices, this can be disregarded. BWB also has no data for Germany to verify this.

[173]) It is unclear from which product groups/suppliers this purchase price difference originates.

[174] https://www.eurocommerce.eu/updates/why-grocery-prices-are-still-so-different-between-eu-countries/

at least 14 billion euros for European consumers, as a study by the European Commission from 2020 shows.[175] The Commission has already investigated territorial supply restrictions that prevent price arbitrage[176] between different Member States. Such restrictions contribute to higher prices for consumers in the EU internal market. If such restrictions are part of agreements between companies or imposed unilaterally by companies with market power, this may Article 101 TFEU or Article 102 TFEU. In 2019, the Commission imposed a fine of around 200 million euros on AB InBev, the world's largest beer brewer,[177] because the company had restricted cross-border trade in beer products between Belgium and the Netherlands. The Commission is currently investigating Mondelēz International,[178] one of the largest producers of chocolate, cookies and coffee in the European Union, for cross-border trade in its chocolate, cookie and coffee products.

7.4.2. The suppliers' point of view

Targeted price discrimination across borders is probably possible in particular for suppliers that are sufficiently geographically diversified. For this reason, the following presentation is made separately for *multinational suppliers* and *other suppliers* excluding suppliers of fresh produce in the context of Austria and Germany. It should be noted that the aforementioned form of price discrimination can occur not only through multinational suppliers, but also, for example, through suppliers that are active in export.

The requests for information show that, according to the suppliers, the difference in sales prices to food retailers is due in particular to the following factors:

- Market position of the supplier in the market and competition;
- different purchasing power of consumers in the countries,[179] price thresholds for consumers;[180]

[175] https://op.europa.eu/de/publication-detail/-/publication/831c7de4-2a1e-11eb-9d7e-01aa75ed71a1

[176] Arbitrage is the virtually risk-free or very low-risk realization of profits by exploiting price differences on different markets.

[177] https://ec.europa.eu/commission/presscorner/detail/de/IP_19_2488

[178] https://ec.europa.eu/commission/presscorner/detail/de/ip_21_281

[(179)] In an international comparison, private households in Austria have a high willingness to pay for products with special attributes such as freshness, regional origin, animal welfare and organic production (see Sinabell, F., Morawetz, U. B., Holst, C. (2014): Foreign component of the food market in Austria, WIFO, Vienna, http://www.wifo.ac.at/wwa/pubid/50911).

[180] The BWB market survey (see point *9.1*) showed that consumers are willing to accept a longer journey in order to save money. On average, the consumers surveyed stated that they would save around EUR 25.00 per week for an extra ten-minute trip. In relation to the average weekly purchase of EUR 135.00, this is a "necessary" saving of 18.5%. Accordingly, even a reduction in the price level by [10-15]% to that of Germany would not be sufficient for the average consumer to save 10 extra milliards.

- Market size (economies of scale), customer structure, consumer preferences (product range policy, packaging), promotional policy;
- inconsistent regulation (country-specific regulations labeling, packaging, recycling, sales conditions and other aspects);
- country-specific taxes and duties; or
- Costs (e.g. logistics, advertising), preliminary costs (e.g. costs for the introduction of new products), transportation routes (distance to the factory, maintenance of a central warehouse), costs of the respective distribution partners.

With regard to these differences, **multinational corporations**[181] emphasize that the cost structure is not uniform everywhere, which is why pricing strategies also vary. Different business and distribution models within Europe also have an impact. This can be achieved, for example, through a local subsidiary that is "only" responsible for negotiating in the national market. Alternatively, this can also be done by an external distributor, which is free to set its own prices. It is also emphasized that strong brands align their presence with different consumer expectations, habits, seasons, traditions as well as regional and local characteristics and events.

Other suppliers emphasize that there are definitely efforts towards international standardization. Even for non-multinational suppliers, the processing of the markets differs in many areas. Different market sizes and competition lead to production batches of different sizes (country-specific recipes / language regulations / legal declarations) and thus economies of scale. Country-specific situations would also lead to individual distributions of budgets, which would be reflected in the sales prices to food retailers. The view is expanded the fact that suppliers have also stated that they generate significantly higher margins abroad than in Austria. The reason for this is the marketing on the foreign market as high-quality (organic) food or Austrian specialties. On the other hand, it was also argued that the "regionality bonus" (= Austrian designation of origin goes hand in hand with a higher willingness to pay on the domestic market) is lost in Germany.

In general, targeted price discrimination across national borders is likely to be easier for multinational suppliers than for purely national suppliers and is therefore also in profitability. The EBITDA margin[182] for the Austrian market of the two supplier groups is compared as an indicator of profitability. BWB only has limited data on this. Companies with different business areas are also compared here, which is why this observation is only

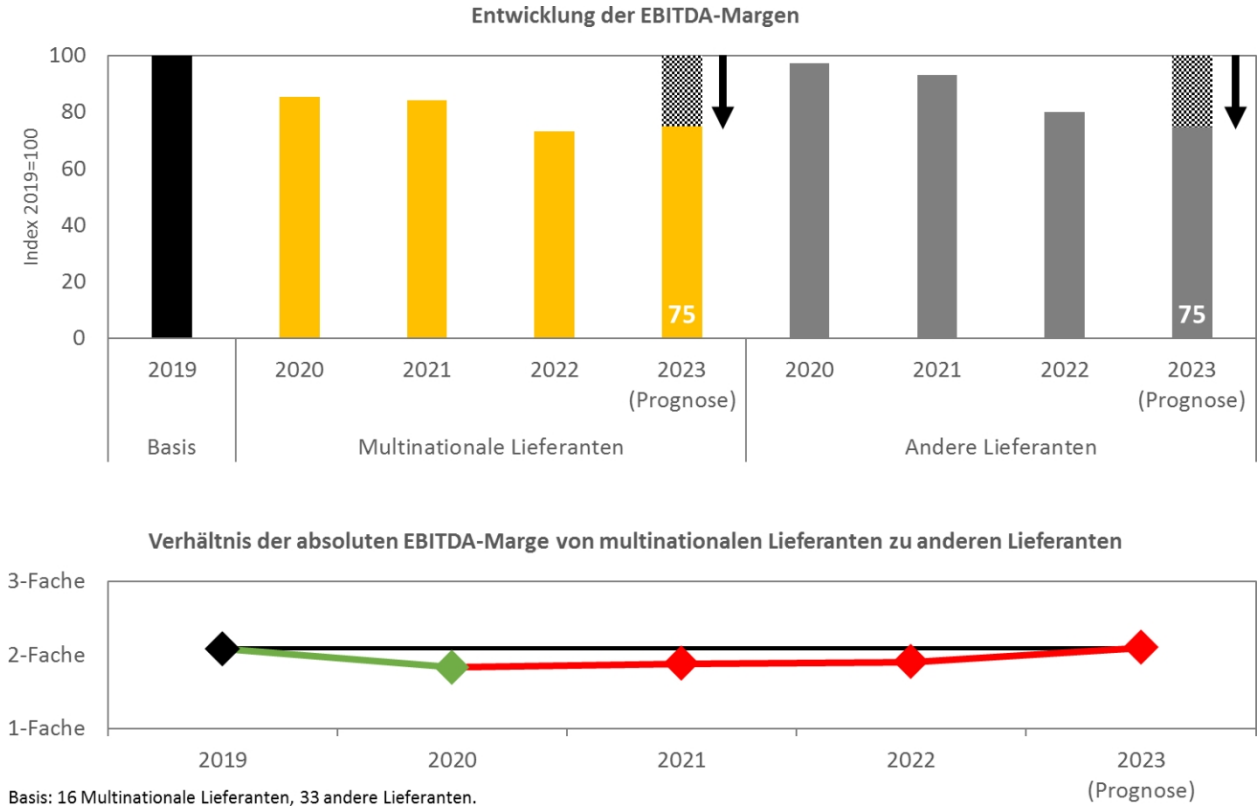
nutes. The price sensitivity of consumers required for a switch could be increased through ambitious transparency measures (see **BWB focus paper on price comparison platforms** in the food sector).

(181) Listed companies in Table 12 excl. Red Bull and Lactalis.

(182) The EBITDA margin is an important indicator in the context of corporate analysis, but does not correspond to economic profit, which is why it only interpreted as an indicator here. It is defined as earnings before interest, taxes, depreciation and amortization of intangible assets in relation to sales revenue.

can be considered indicative. It can be seen that the EBITDA margins for Austria have fallen at a similar rate for both groups, see Figure 98. At the same time, the EBITDA margins of multinational suppliers for Austria are still significantly higher than those of other suppliers at an average of two times. After a brief decline, this ratio roughly corresponds to the pre-crisis level again. However, this also means that the EBITDA margins of multinational suppliers have fallen more sharply in absolute terms than those of other suppliers.

Figure 98: Comparison of the EBITDA margin over time and between suppliers



Source: Request for information.

On the basis of the submissions submitted to the BWB, it can therefore be indicated that **suppliers** have incentives for different pricing strategies in the individual EU member states. This is also consistent with the national geographic market definition of the food retail procurement market under antitrust law. The incentives for different pricing strategies tend to increase with the degree of internationalization and diversification of the supplier. With regard to Austria and Germany, however, there was also feedback in the requests for information that no fundamentally different pricing strategy would be pursued due to similarities in sales and marketing. **For the so-called Austrian mark-up, this means that the public discussion should not only focus on the food retail sector. The purchase prices of food retailers, and thus the suppliers, can also have a rebuttably high significance.**

With regard to the question of the (explo- itation of arbitrage through different pricing policies of suppliers in the EU internal market, the relevant EU institutions are called upon to act. In any case, unjustified differences are not compatible with the idea of a common market and can ultimately lead to a disadvantage for Austrian consumers. The issue of the so-called Austrian surcharge therefore goes the national level. **The BWB will therefore refer the issue to the European Commission.**

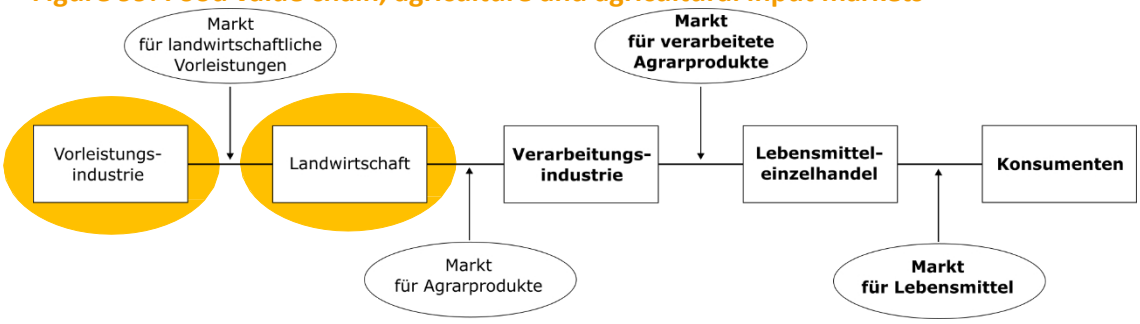
As part of its efforts to make both the retail and wholesale sectors more resilient, digital and environmentally friendly, the **European Commission** carried out a public consultation in 2023, one of which concerned territorial trade restrictions. [183] These are the restrictions imposed by suppliers (directly or, for example, through subsidiaries) that make it virtually impossible for wholesalers or retailers to buy products in one Member State and resell them in other Member States. [(184]**) The FCA recommends that food retail companies participate in such initiatives of the Commission and bring their relevant experience to its attention.**

[183] https://single-market-economy.ec.europa.eu/news/commission-seeks-views-make-retail-and-wholesale-sectors-more-resilient-digital-and-green-2023-07-28_en

[184] This includes direct restrictions (e.g. refusal to supply, target commitments or quantitative limits) and indirect restrictions (e.g. differentiation of products in terms of content/composition or packaging) imposed by companies to hinder cross-border trade.

8. Agriculture and agricultural input markets

Figure 99: Food value chain, agriculture and agricultural input markets



Source: Own representation.

A detailed examination of agriculture and the agricultural input markets is beyond the scope of this sector inquiry. This chapter is therefore limited to summarizing some of the facts that came to the attention of the BWB in the course of its investigations.

8.1. Market structure

8.1.1. Agricultural input markets

The wholesale markets of agriculture and the food industry naturally to a large extent. In order to clarify this aspect, the most relevant wholesale markets for the food industry are first listed from the industry's perspective. This list is then supplemented by agriculture-specific input markets.

As part of the BWB's requests for information, suppliers to the Austrian food retail sector were also asked about their cost structure. The BWB was informed of a number of wholesale markets that influence suppliers' costs to varying degrees. It should noted that the companies surveyed are extremely heterogeneous due to their different focal points in the supply of food, although the cost structure of companies with similar economic activities can also differ considerably[185].

The following cost drivers were mentioned particularly frequently:

- Energy (esp. electricity, gas and fuel);
- Agricultural products;
- Commodity markets;

[185] For a detailed discussion of the food industry's wholesale markets, see section 7.3.2.

- Packaging material (cardboard, plastic or glass);
- increased financing costs;
- Labor costs; or
- Shortage of supply due to weather/climate, supply chains that are not intact or the war in the Ukraine.

The most frequently cited cost factors, which have a cost-increasing effect on all economic sectors, are the **increased energy costs** (electricity, gas, fuel). The BWB has already with these very important input markets elsewhere, which is why reference is made to these BWB studies:

- The domestic **electricity and gas market** is being investigated as part of the **E-Control and BWB task force.** As the interim report shows, a lack of competition is responsible both for the unequal treatment of new and existing customers and for the lack of supply-side incentives to pass on cost reductions quickly and comprehensively to customers. In addition, energy suppliers' prices are based on wholesale prices, the cost structure of generation and the company's internal administration. The Ukraine war in particular caused these to . Between 01.01.2022 and 01.04.2023, electricity prices for existing customers often rose by 400-500%, while gas prices for existing customers could even rise by up to 850%[186].
- As part of the **fuel market sector study** in 2022, BWB examined the fuel market in Austria with a focus on the last two stages in the value chain: distribution (filling stations) and refining. Fuels are not only of economic relevance for the transportation of goods, but also for the operation of (agricultural) machinery. In the business relationships between refineries and customers, price transparency can be described as relatively high: The prices of petroleum products (petrol, diesel, kerosene, heating oil, etc.) are determined on exchanges by trading indices, which are regularly revalued on weekdays by international price information services such as S&P Platts and Argus Media[187].

The food industry cited the **use of materials** as another important cost factor when requesting information. This is closely linked to the development purchase prices **for agricultural products** and other raw materials. However, it should be noted , as a representative of all wholesale markets, the food industry also competes with other sectors when purchasing agricultural products.

[186] See Federal Competition Authority & E-Control (2023), Taskforce of E-Control and the Federal Competition Authority 2023 First Report.

[187] See BWB (2022): Fuel Market Sector Inquiry. An analysis of prices, gross margins and market conditions at filling stations and refineries.

(e.g. pharmaceutical manufacturers for certain products, fuel manufacturers for rapeseed oil), which also results in competition in the use of agricultural land.

The market structure of agriculture is then examined in more detail. With regard to market results, not only agriculture, but also agricultural input markets are discussed. These are, on the one hand, those inputs that are also relevant for the food industry and, on the other hand, agricultural-specific inputs, in particular **fertilizers, pesticides** and **animal feed**, as well as the weather as an important influencing factor, which can also be expressed in the form of **insurance costs**.

The cost increases for agricultural products are **due,** among other things, to (i) intact global supply chains, (ii) geopolitical conflicts, above all the Russian war of aggression on Ukraine, (iii) frost/drought/rain/flooding - which not only reduces harvest volumes also quality - and (iv) a global supply shortage, also due to increasingly frequent and severe extreme weather events such as El Niño.

8.1.2. Agriculture

Agriculture has always had the important task of ensuring the supply of food to the population in the medium and long term[(188).]

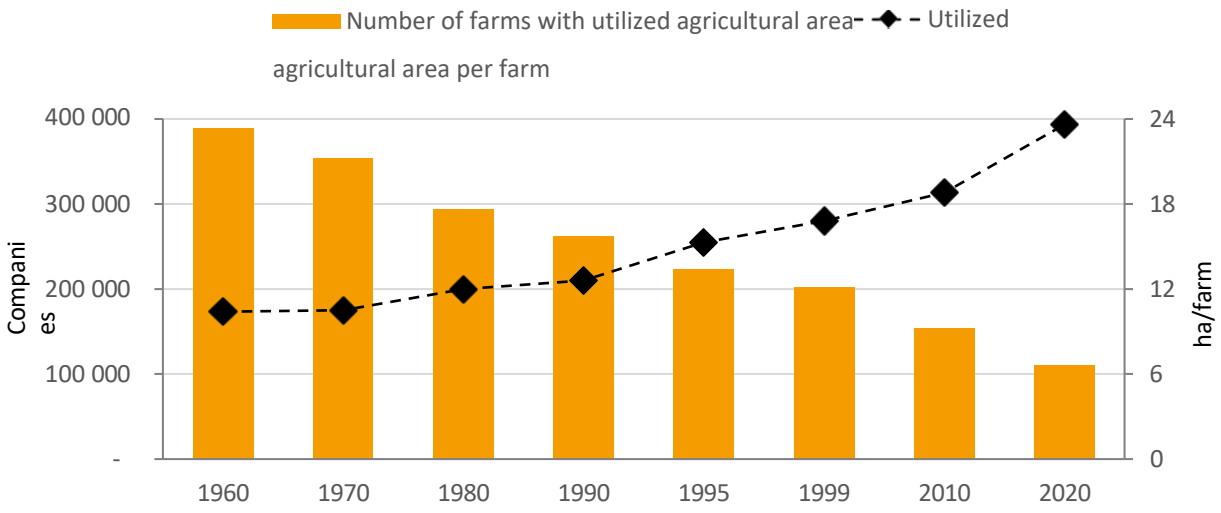
In 2020, Statistics Austria counted **110,781** farms, i.e. farms with the purpose of cultivating agricultural land and/or keeping livestock (Agricultural Structure Survey 2020). The majority (57%) of farms were as a sideline. Families continue to be the backbone of the Austrian agricultural economy, with four out of five workers being family members[189].

Compared to 2010, the number of these farms fell by 21%. The average utilized agricultural area per farm (arable land, home and kitchen gardens, permanent crops, permanent grassland) increased by around 25.5% over this period from 18.8 ha to 23.6 ha in 2020. As can be seen in Figure 100, there has been an unbroken downward trend in the number of farms since 1960, which has been accompanied by an upward trend in the average utilized agricultural area per farm.

[(188)] According to the BML's third report on national food supply security, this is currently assured, which is why it will not be discussed in more detail below. https://info.bml.gv.at/themen/landwirtschaft/ukraine-russland/drit- ter-bericht-zur-nationalen-lebensmittelversorgungssicherheit.html

[189] https://www.statistik.at/fileadmin/announcement/2022/07/20220712AS2020.pdf

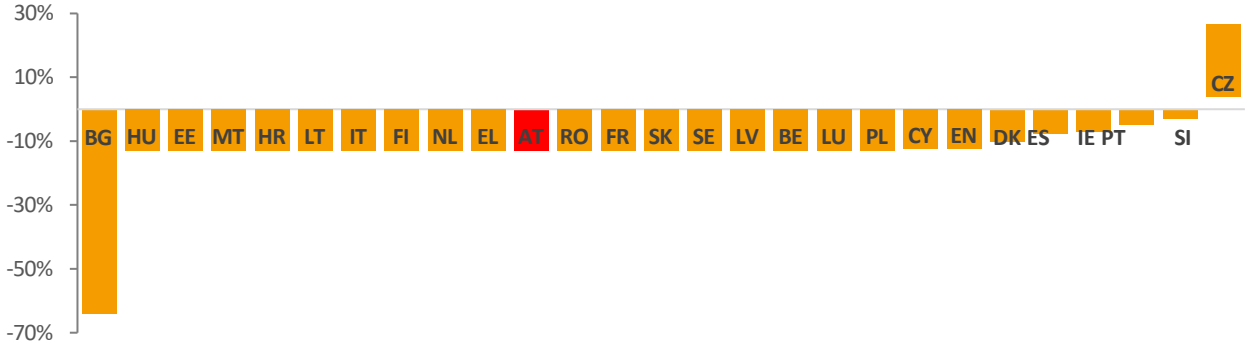
Figure 100: Farms and usable area in agriculture



Source: Statistics Austria.

In an international comparison, Austria is in the middle of the field when it comes to the decline in the number of , as Figure 101 shows for the change in 2020 compared to 2010.

Figure 101: Change in the number of farms in the EU, 2020/2010 (in %)

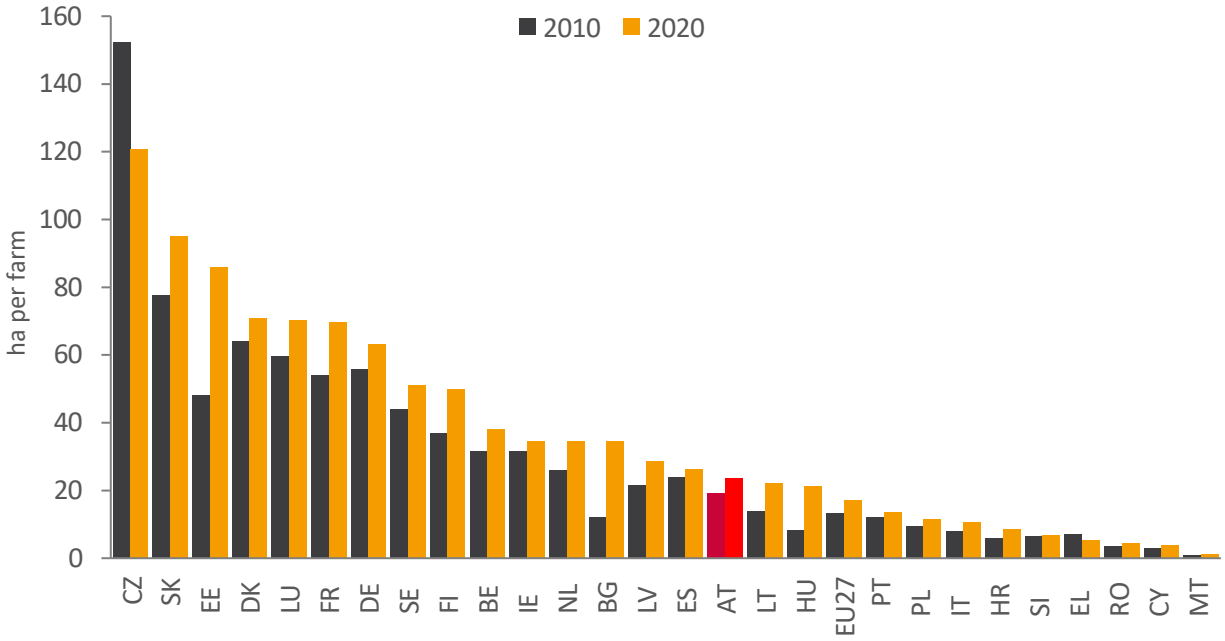


Source: Eurostat.

Thus, although there is a continuous trend towards fewer and larger farms in Austrian agriculture, it can still be described as small-scale in an international comparison. This can be seen in Figure 102, which shows that Austria is above the EU27 average in terms of utilized area per farm. However, farms in the Czech Republic, Slovakia, Denmark, France, Germany, Belgium and the Netherlands, for example, often use much larger agricultural areas. In a concrete comparison with Germany, this means that the area used for agriculture there amounted to an average of around 63.15 ha per farm in 2020, while Austria "only" had

23.6 ha.[190] The aforementioned continuous trend towards fewer and larger farms can also be observed in most EU countries.

Figure 102: Utilized agricultural area per farm (in ha), 2010 and 2020



Source: Eurostat

A similar picture with increasing concentration can also be seen in livestock farming. In 2010, an Austrian farm still kept an average of 28 cattle, ten years later it was already
34. For pigs, this figure rose from 85 to 112 animals, for sheep from 27 to 33 animals and for goats from eight to 12 animals per farm(191).

Numerous agricultural cooperatives were founded in Austria, not least due to the small-scale structure of agriculture− The first warehouse cooperative was founded in 1898. The arguments for this include:[192]

- More favorable conditions by bundling demand in the procurement of equipment, operating materials and raw materials;
- The joint coordination of sales and marketing;
- (Centralized) provision of production, service and consulting services (such as cleaning, packaging, quality control or transport) or

[190] In 2022, the figure in Germany was 64.14 ha/farm. See https://www.destatis.de/DE/Themen/Branchen-Unternehmen/Landwirtschaft-Forstwirtschaft-Fischerei/Landwirtschaftliche-Betriebe/Tabellen/betriebsgroessenstruktur-landwirtschaftliche-betriebe.html

(191) See the press release issued by Statistics Austria on July 12, 2022: https://www.statistik.at/fileadmin/announcement/2022/07/20220712AS2020.pdf

[192] https://www.wu.ac.at/ricc/geno-schafft/aktuelle-blogbeitraege/detail/genossenschaften-in-der-landwirtschaft/.

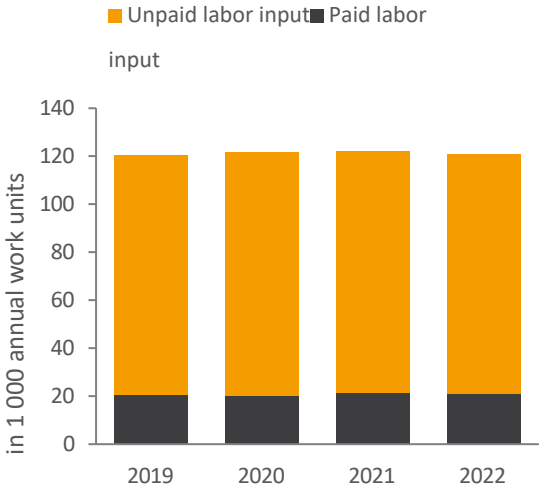
- Ideally, the central idea is to work together to provide healthy, ecologically sound food.

The first three points serve market economy goals, such as improving market position and performance capacity. However, market weaknesses of farmers in the procurement and sales business are also to be compensated for, for example by creating a counterweight to the buying power of food retailers or enabling them to survive in international trade. The argumentation is analogous to that of trade in European purchasing alliances and multinational corporations.

A look at **labor input in agriculture** shows that over 80% is covered by unpaid labor input. Unpaid labor input refers to people whose work is remunerated by the income earned in agriculture. In other words, a large proportion of the people working in this sector are not dependent employees. Figure 103 on the left shows this development in recent years, which has remained largely constant. Figure 103 on the right expands the picture to include the perspective on the labor market for agriculture, forestry and fishing. A sharp increase in job vacancies has been observed since 2019. In the same period, total employment in this sector has remained almost constant. This may be due to various factors, including technological developments, but it is also an indication of a shortage of skilled workers agriculture. This is also consistent with the responses to the BWB's requests for information, in which labor shortages in agriculture were frequently mentioned as a cost driver.

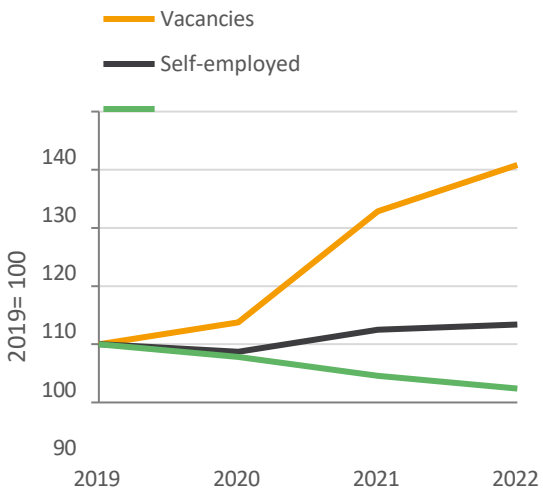
Figure 103: Labor market in the ÖNACE sector agriculture and forestry; fishing

Agricultural work assignment



Source: Statistics Austria.

Labor market in the ÖNACE sector Agriculture, forestry and fishing



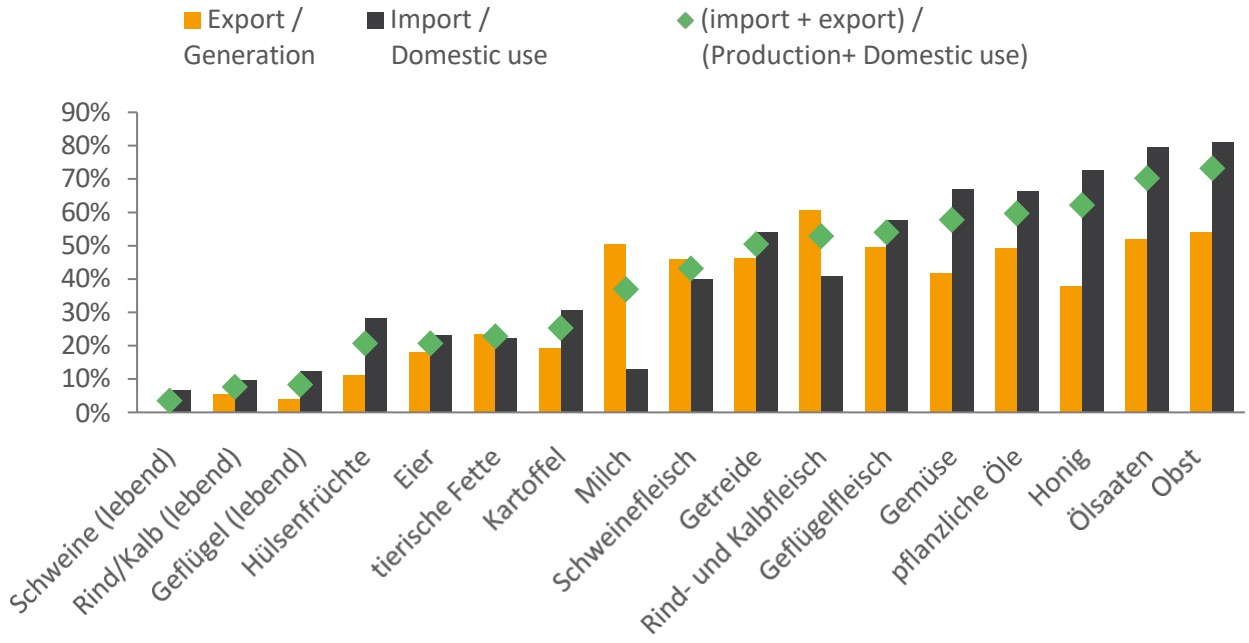
Source: AMS.

Pricing also depends heavily on sales opportunities and competition as well as imports. The **external economic interdependence of Austrian agriculture** is shown in Figure
104. this is determined (i) by the level of exports relative to domestic production, (ii) by the level imports relative to total domestic use, and (iii) by the

ratio of trade flows to domestic production. The higher three key figures, the stronger the interdependence. In principle, foreign trade interdependence is evident in all product groups. It is low– but exists– in foreign trade in live animals, for example, and particularly high in fish. It can therefore be assumed that although international prices are of varying importance for the individual product groups, they tend to a significant influence on pricing. Exports, for example, can be an alternative to domestic sales.

market or imports from abroad restrict the pricing of domestic agricultural businesses. For further consideration, this means that (price) developments in Austria must also be seen in the context of the EU internal market.

Figure 104: External economic integration of Austrian agriculture



Note: Excluding fish for reasons of presentation (exports / production= 309%, imports / domestic use= 118%).

Source: Statistics Austria (supply balances).

Not least due to the economies of scale of agricultural cooperatives or other intermediary levels, agricultural products are often exported and traded internationally by them or by the farms themselves**.** As part of the BWB requests for information, we therefore asked whether suppliers link purchase price developments for agricultural products (at least in part) to international developments. The overwhelming to this question was that **purchase prices are also based on international developments**– this applies to numerous **suppliers**.

rich agricultural products. However, agricultural products are often purchased directly from the producer. and not on the stock exchange. The international market for various commodities is therefore frequently observed and serves as a **basis for negotiating supplier contracts**. (National) market indices or stock market developments are also observed. However, indices are used less frequently in contracts, for example in price formulas or as reference prices.

In Austria, Agrarmarkt Austria (AMA) publishes national and international market indices for various agricultural products at regular intervals.[193] This accessible data therefore makes an important contribution to **price transparency** in the agricultural sector, both for producers and commercial buyers, and applies equally to plant and animal products. The costs of agricultural products also influence each other: (i) plant products, for example as animal feed, in turn represent a cost factor for animal products, or (ii) plant products compete for arable land.

8.2. Agriculture in antitrust law

In addition to these structural aspects in agriculture, which can also be seen as **beneficial for intensive competition**, there are far-reaching exceptions to the competition rules in the Austrian Cartel Act (KartG) and at European level.

Section 2(1)(5) KartG contains an exception to the prohibition of cartels in Section 1 for agreements, decisions and practices of agricultural producers, associations of agricultural producers or associations of such producers' associations on

a) the production or marketing of agricultural products or
b) the use of common facilities for the storage, treatment or processing of agricultural products,

provided they do not contain price maintenance and do not exclude competition.

This provision served to incorporate into Austrian law the exemptions for agricultural products and their trade provided for in Union law (in particular in Article 2 of the Agricultural Competition Regulation[194] and in Article 209 et seq. of the Regulation establishing a common organization of the markets in agricultural products [CMO Regulation][195]).

In connection with the exemptions from the scope of application of the EU competition rules for the agricultural sector, the exemption from the prohibition of cartels under Art 101 TFEU for certain agreements, decisions and concerted practices contained in Art 210 of the CMO Regulation is particularly important.

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(193) Market data is available for the following areas, for example: Fruit and vegetables, cereals and oilseeds, eggs and poultry, milk and dairy products as well as livestock and meat https://www.ama.at/marktinformationen/aktuelle-marktinformationen

194 Council Regulation (EC) 1184/2006 of 24.7.2006 applying certain rules of competition to production of and trade in certain agricultural products, OJ L 2006/214,7 as amended by Regulation (EU) 1379/2013 of the European Parliament and of the Council of 11.12.2013, OJ L 2013/354, 1.

195 Regulation (EU) 1308/2013 of the European Parliament and of the Council of 17.12.2013 establishing a common organization of the markets in agricultural products and repealing Regulations (EEC) No 922/72 and (EEC) No 234/79, (EC) No 1037/2001 and (EC) No 1234/2007 of the Council, OJ L 2013/347, 671 as amended by Regulation (EU) 2021/2117 of the European Parliament and of the Council of 2.12.2021, OJ L 2021/435,262.

recognized interbranch organizations. Since the most recent amendment to this regulation as part of the reform of the Common Agricultural Policy (Regulation 2021/2117)[196], there is also an exception for sustainability agreements (Art 210a) between agricultural producers or between them and other actors in the value chain. The Commission will adopt guidelines on this provision at the end of 2023.

It should also be noted that the EU Member States have the possibility, at the request of a producer organization or certain other associations, to adopt rules for the supply management of agricultural products with a protected designation of origin or protected geographical indication for a certain period of time (Art 166a). In the area of viticulture, interbranch organizations may, in derogation from Art 101 TFEU, provide price recommendations for the sale of grapes for the production of wines with a protected designation of origin or a protected geographical indication (Art 172b).

As shown above, the **markets for agricultural products**, which are particularly exposed to international influences, are usually not to be considered in a purely national context. However, these markets do not necessarily coincide with the concept of the **relevant market**, which is used for the assessment of a situation under competition law. This definition of the market serves to precisely delimit the area in which companies compete each other. This allows the framework within which competition law is applied to be defined. A market is defined both in terms of product and geographic scope. The relevant product market comprises all products and/or services that are considered interchangeable or substitutable by consumers in terms of their characteristics, prices and intended use. Examples in the agricultural sector include the market for the collection of raw milk or the market for live pigs for slaughter. The relevant geographic market comprises the area in which the companies involved offer the relevant products or services, in which the competitive conditions are sufficiently homogeneous and which differs from neighboring areas due to noticeably different competitive conditions. Only the definition of the market enables, for example, the calculation of market shares, which is often so important for the competitive assessment.[197]

[196] Regulation (EU) 2021/2117 of the European Parliament and of the Council of 2 December 2021 amending Regulations (EU) No 1308/2013 establishing a common organization of the markets in agricultural products, (EU) No 1151/2012 on quality schemes for agricultural products and foodstuffs, (EU) No 251/2014 on the definition, description, presentation and labeling of aromatized wine products and the protection of geographical indications of aromatized wine products and (EU) No. 228/2013 laying down specific measures for agriculture in the outermost regions of the Union.

[197] See Commission Notice on the definition of the relevant market for the purposes of competition law in the Community, OJ 1997 C 372 p 5.

These comments on the definition of the relevant markets also show that in many cases - for example in connection with the examination of a merger - the geographic market definition carried out by the competition authorities does not result in a worldwide or at least EEA-wide market, but in a national or even regional market, despite the international dimension of the case. There may a variety of reasons for this, such as buyers (e.g. slaughterhouses) preferring animals from local farmers they know, animal welfare regulations (e.g. maximum transport time of animals of 24 hours and a mandatory break after eight hours) or the demand behavior of consumers (e.g. preference for domestic meat). With regard to the collection of grain, only delivery within a certain radius of a customer's location was economically viable, whereby different agricultural structures (e.g. large farms with corresponding storage capacities) can lead to a different expansion of the geographic market. Practical considerations with regard to transportation are in turn decisive for the fact that the collection market for raw milk is often defined regionally (e.g. within a certain radius around the dairy).

8.3. Market result

8.3.1. Agricultural input markets

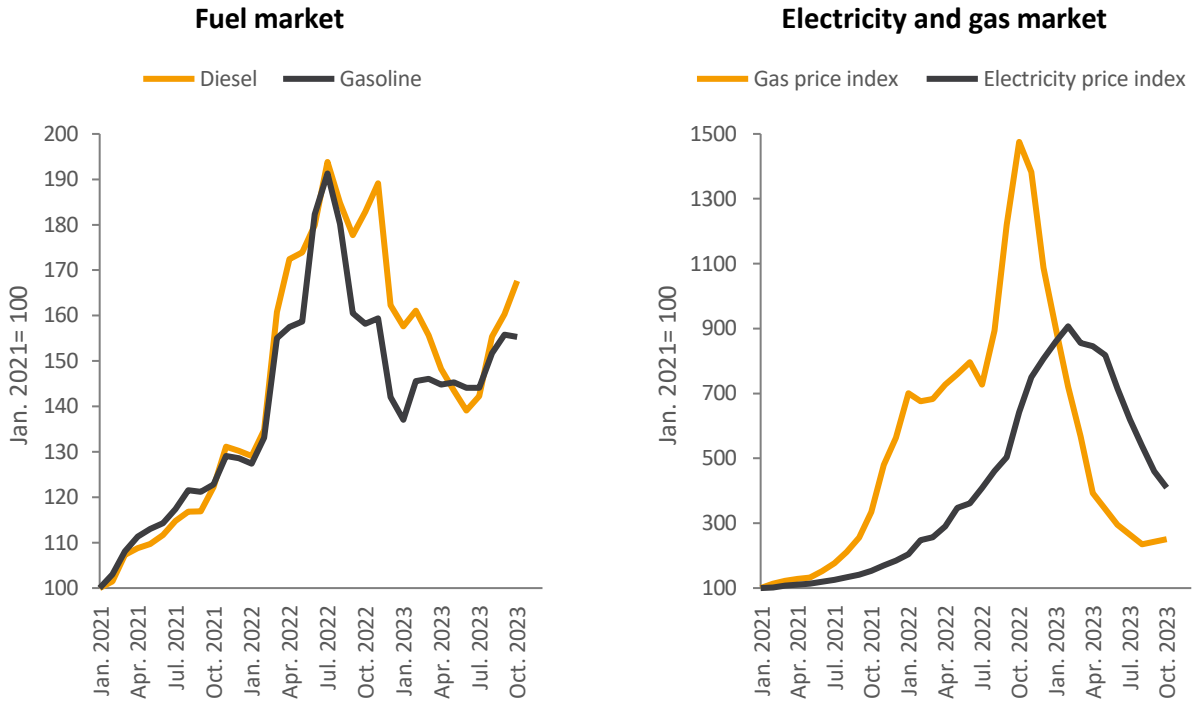
Due to the diversity of agricultural input markets, these are shown individually below.

Energy and fuel costs. High energy costs, especially for electricity, gas and fuel, are driving up prices in industry and agriculture. The war in Ukraine has had a major impact on energy prices, with increases of 400-500% for electricity and up to 850% for gas between January 2022 and April 2023. As already mentioned, the E-Control and BWB task force sees a lack of competition as a reason for unequal treatment and a lack of incentives to reduce costs on the energy market. The development of various fuel prices, especially those of petrol and diesel but also kerosene, not only affects transport and delivery costs, but also the costs of operating agricultural machinery. While petrol and diesel prices already on an upward trend in 2021, the Russian invasion of Ukraine at the end of February 2022 led to sharp price jumps for petrol and diesel. BWB calculations that European refineries were able to double to triple their profit margins in the months following the start of the war.[198] As the costs of transporting goods and operating agricultural machinery are heavily influenced by fuel price trends, cost increases in the food industry (especially logistics) and in agriculture (especially machine operation) can partly explained by higher fuel prices.

[198] The wholesale prices used for the calculation, which were approximated by international price quotations for petrol and diesel, and the crude oil prices have a similar significance for refineries throughout Europe. In addition, only the refineries relevant to Austria were examined in more detail in the sector study. In total, this involved ten refinery sites from five operators (OMV, BP, Shell, ENI and JET) in and around Austria.

The left-hand chart in Figure 105 shows the development of diesel and petrol prices (normal), which rose sharply in mid-2022. Although prices have fallen again since then, they are still significantly higher than the level before the war in Ukraine. The chart on the right shows the development of the gas price index and the electricity price index. These prices rose sharply at the end of 2022 and beginning of 2023 in particular. Although the price peak appears to have already been reached and prices are falling again, they are still– and fuel prices– above the level at the beginning of the period.
It is therefore to be expected that the higher energy prices will continue to act as a cost factor.

Figure 105: Changes in energy costs



Source: BMK.

Source: Austrian Energy Agency.

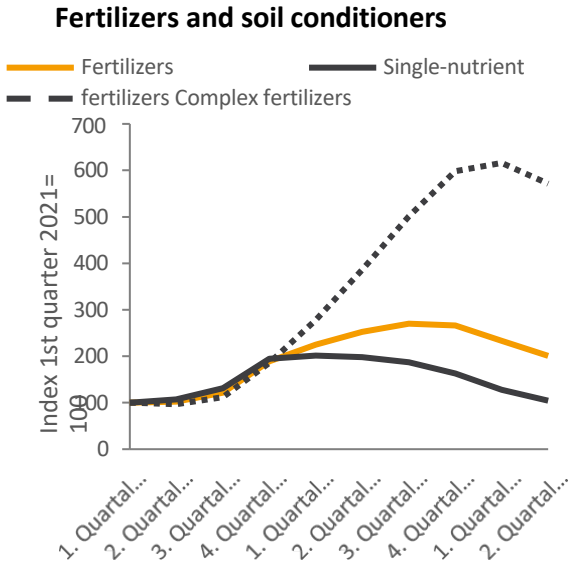
Fertilizers and crop protection products. Due to the declining availability of raw materials from Russia and Belarus as a result of the Ukraine crisis, high gas prices and global logistics problems, there was a sharp reduction in fertilizer production in Europe last year in particular (-70% EU fertilizer production by the summer). This led to fluctuating fertilizer prices at a high level worldwide. In the meantime, gas prices have fallen again and stabilized in some cases, which has also allowed fertilizer production in the EU to resume. This in turn led to a fall in global fertilizer prices in recent months. However, as the agricultural sector has still purchased fertilizer for 2023 at the high prices of 2022, these price peaks will continue to be felt with a delay[199].

Figure 106 on the left shows the price index for fertilizers and soil improvers, consisting of price indices for straight and compound fertilizers (mixed fertilizers). Straight fertilizers are in the

[199] BML (2023): Third report on national food supply security, p.4.

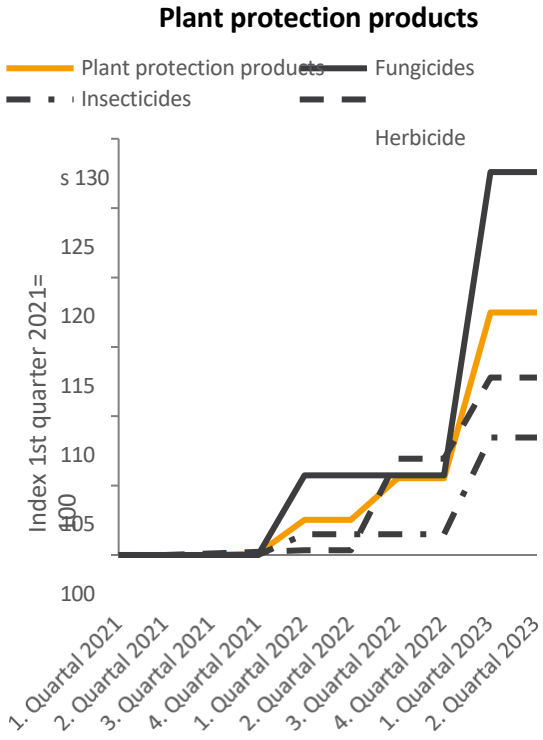
Q2 2023 is around 4% above the level of 2021, while compound fertilizers have risen by 471% in the same period. Figure 106 on the right shows the price index for crop protection products. Compared to Q1 2021, costs rose by around 3-6% in 2022 and by a total of 17% in 2023. The underlying driver is fungicides. This shows that the prices for crop protection products have risen, but not nearly as much as those for fertilizers, which have almost exploded in comparison.

Figure 106: Price index for fertilizers, soil improvers and pesticides



Note: Single-nutrient fertilizers include calcium ammonium nitrate, uric acid, hypergrain, triple phosphate and potassium salt. Complex fertilizers are compound fertilizers such as diammonium phosphate, PK compound fertilizer, complete fertilizer.

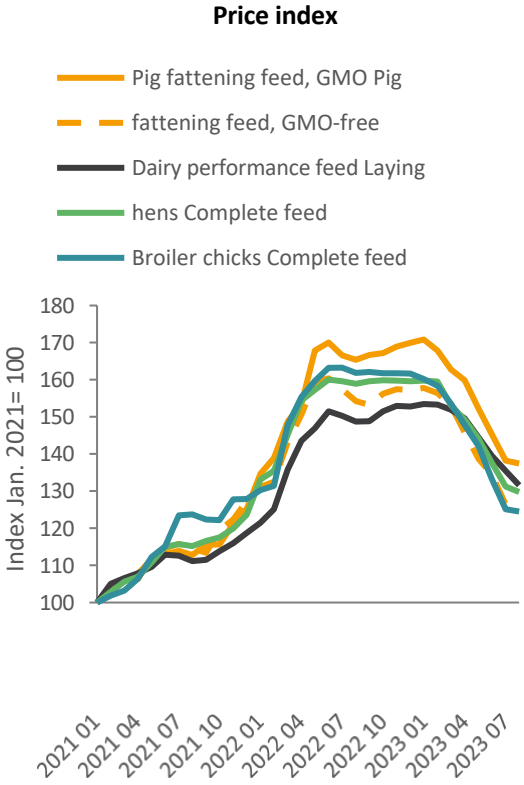
Source: Statistics Austria.



Source: Statistics Austria.

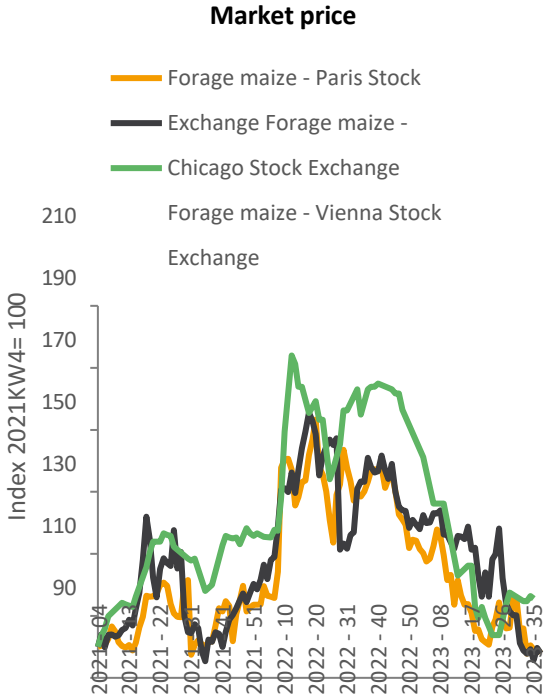
Animal feed. The surrounding EU countries are an important source of raw material imports for feed production, even if in many areas (cattle, dairy and pig production) the proportion of own feed is very high (> 80 percent)− this means that less feed has to be purchased compared to other countries.[200] Figure 107 shows the development of feed prices. Feed maize rose sharply in Austria and on international exchanges[201], especially in 2022, reaching a value of EUR 355/t in 2022KW12. At the beginning of the observation period, the price was EUR 183/t (2021KW04)
and at the end at 211 EUR/t (2023KW35). A similar trend can be observed for animal feed, especially for pigs, poultry and dairy cows. At the peak of the price increases, were 53 to 71% higher than in January 2021. Prices have since , but are still 24 to 37% above the initial level. It should be noted at this point that there are also substitution relationships between different commodities. Ukraine was an important area for growing animal feed before the war began. When the non-renewal of the Black Sea Grain Agreement and Russia's attack on Ukrainian port cities and their loading infrastructure caused wheat prices and thus glucose prices to rise, this affected feed costs overall, including those of feed maize, for example.

Figure 107: Price index for animal feed



Note: GMO= genetically modified organisms.

Source: AMA.



Source: AMA.

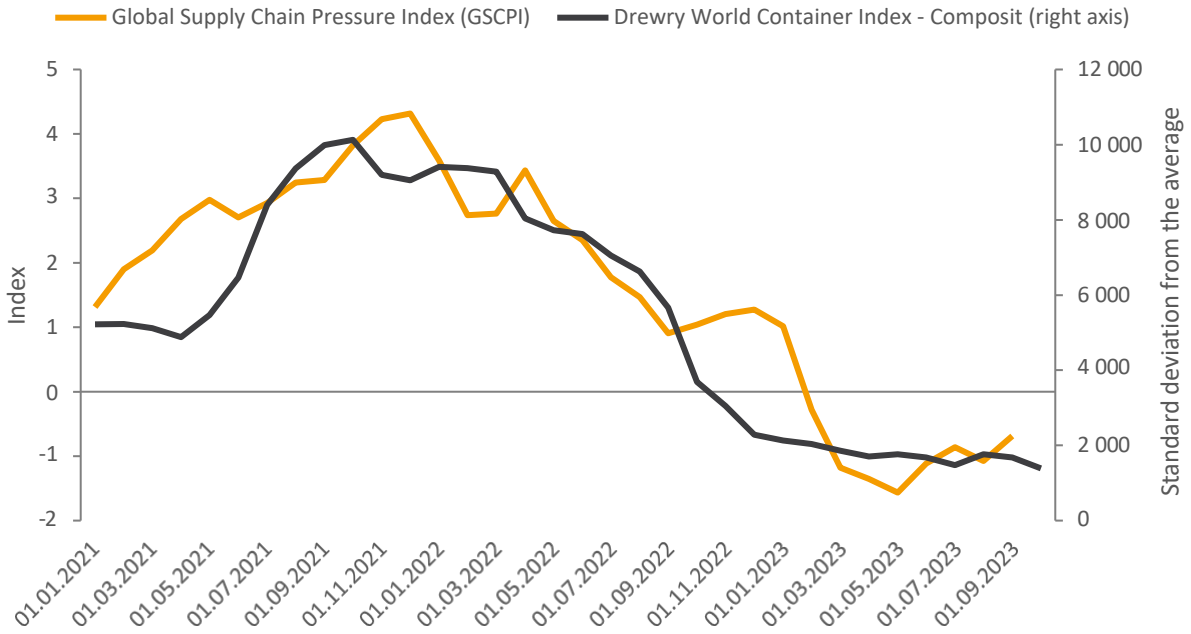
[200] BML (2023): Third report on national food supply security, p.5.

[201] It is not possible to say whether or to what extent speculation on commodity exchanges plays a role in the price

dynamics of agricultural products.

Problems in the supply chains. Supply chain problems are just as relevant for domestically produced agricultural products, for example when it to investments in agricultural machinery. Supply chains are particularly relevant for tropical fruits such as avocados, cocoa and bananas. Problems in the supply chain are not only the result of the war of aggression in Ukraine, which also led to supply shortfalls, e.g. for sunflower oil, mustard or rapeseed oil. They are also the result of increased logistics costs, for example in shipping, which in turn are linked to energy prices and the pandemic. Figure 108 illustrates this situation using the Global Supply Chain Pressure Index, which shows the pressure on value chains, and the Drewry World Container Index, which shows the costs of container transportation. This means temporary and lengthy supply/transport interruptions and directly increases procurement costs by switching to new, more expensive sources, as well as the administrative costs incurred to overcome this challenge.

Figure 108: Situation in the global supply chains



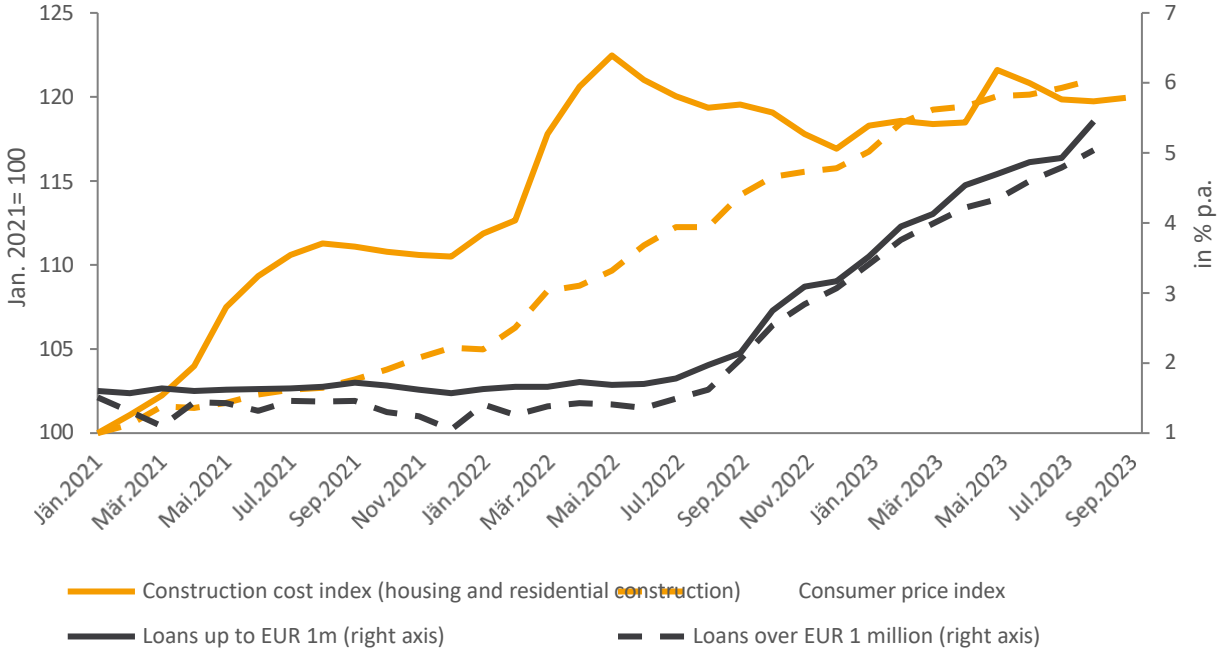
Source: MacroMicro, Federal Reserve Bank of New York.

Financing. Interest rates on loans are of crucial for the financial stability and growth prospects of agricultural and industrial businesses. Investments in equipment, technology and employees are essential in order to remain competitive. The level of interest rates on loans directly influences the financial burden that these businesses face when they take out loans finance or expand their activities. Low interest rates can reduce the cost of capital and thus increase profitability, while high interest rates can exacerbate financial burdens and impair the ability to invest. Figure 109 shows the development of the interest rates that non-financial companies have to deal with for loans up to and including

over EUR 1 million. The increase began in July 2022, parallel to the increase in the ECB key interest rate, and rose from 1.78% to 5.45% for loans of up to EUR 1 million and 1.49% to 5.04% for loans of over EUR 1 million in August 2023.

Insurance policies. Most insurance contracts contain premium adjustment clauses. In many cases, these are linked to the development of a price index that is regularly published by Statistics Austria. The purpose of index adjustments - especially for contracts with a long term - is to cover the rising costs for the insurer due to inflation in the event of a claim and also to prevent gradual underinsurance for policyholders. Various indices are used in insurance contracts, for example the consumer price index or the construction cost index. Figure 109 shows the development of the latter indices.

Figure 109: Indices used for insurance and lending rates for non-financial companies



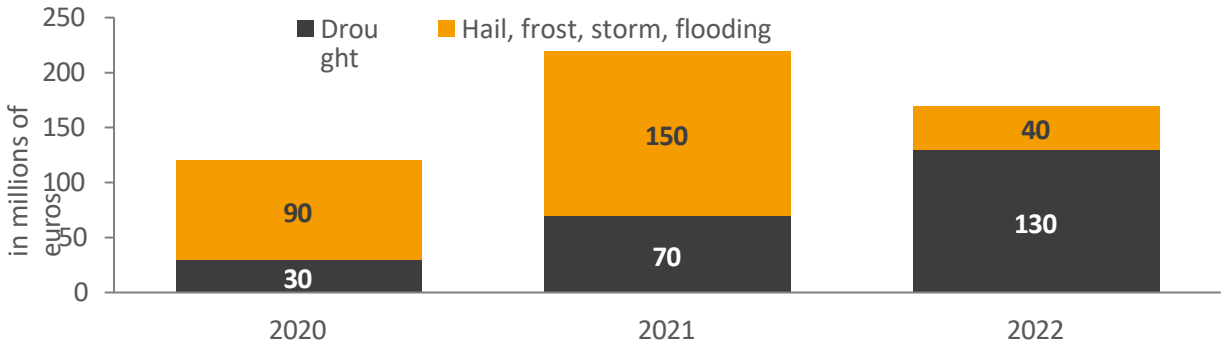
Note: Interest rates on loans to non-financial companies.

Source: Statistics Austria, OeNB.

A special feature of agriculture compared to many other sectors is the high influence of the weather, which can lead to total losses. In this context, an important insurer is Österreichische Hagelversicherung, which insures agricultural crops against frost, storm, drought, flooding and many other risks in addition to hail. It is also Austria's largest livestock insurer for cattle, pigs, sheep, goats and horses. The Austrian weather in 2022 was particularly hot and dry. The winter was 1.5 degrees warmer than average and ranked eighth among the warmest winters in recorded history. Overall, spring was one of the 20 driest springs in the 164-year measurement series. The summer was hot and overall

[202] Figure 110 shows the development of the total damage caused to Austrian agriculture according to the Austrian Hail Insurance. It does not publish an index that makes insurance costs comparable over a period of time, but the ratio of premiums written to the sum insured changed by +3% in 2020, -1% 2021 and +6% in 2022, which represents costs for farms, but also income when an insurance benefit is called in.

Figure 110: Damage in agriculture in Austria

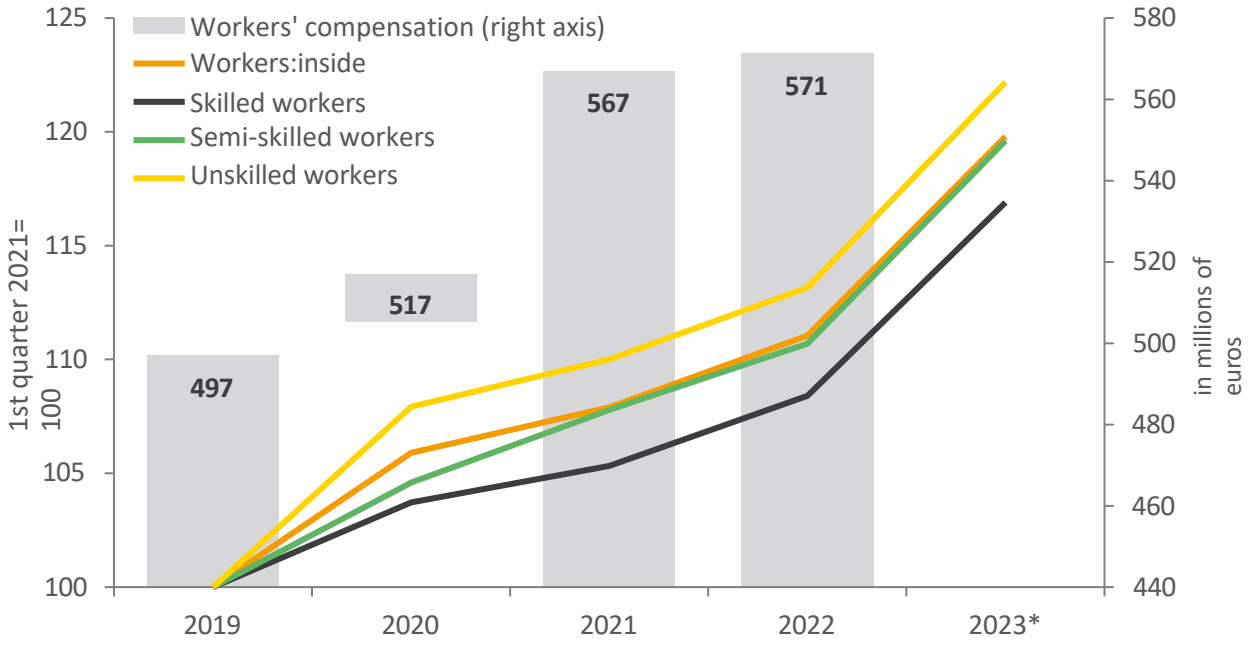


Source: Austrian Hail Insurance.

labor costs. Figure 111 shows the development of the wage indices for the ÖNACE section agriculture, forestry and fishing as well as those for compensation of employees in agriculture. The wage index shows the minimum wage development in Austria on the basis of selected wage and salary items. It shows that the development since the beginning of 2021 has been largely the same for blue-collar workers, skilled workers, semi-skilled workers and unskilled workers. The wage indices rose uniformly by around 6% in 2020 compared to the previous year, by around 2% in 2021 and by around 3% in 2022. In comparison, employee compensation rose by around 4% in 2020 compared to the previous year, by around 10% in 2021− , i.e. significantly more than the wage indices, and by around 1% in 2022.
For the current year, the wage indices rose by 8%. The compensation paid to
reflect the increased labor costs cited in the BWB's requests for information and the wage indices for the current year 2023 suggest that wages will also continue to rise.

[202] https://www.hagel.at/presseaussendungen/jahresbilanz-2022/

Figure 111: Wage indices for agriculture and forestry, fisheries and compensation of employees in agriculture



Note: (*) January to September 2023.

Source: Statistics Austria.

8.3.2. Agriculture

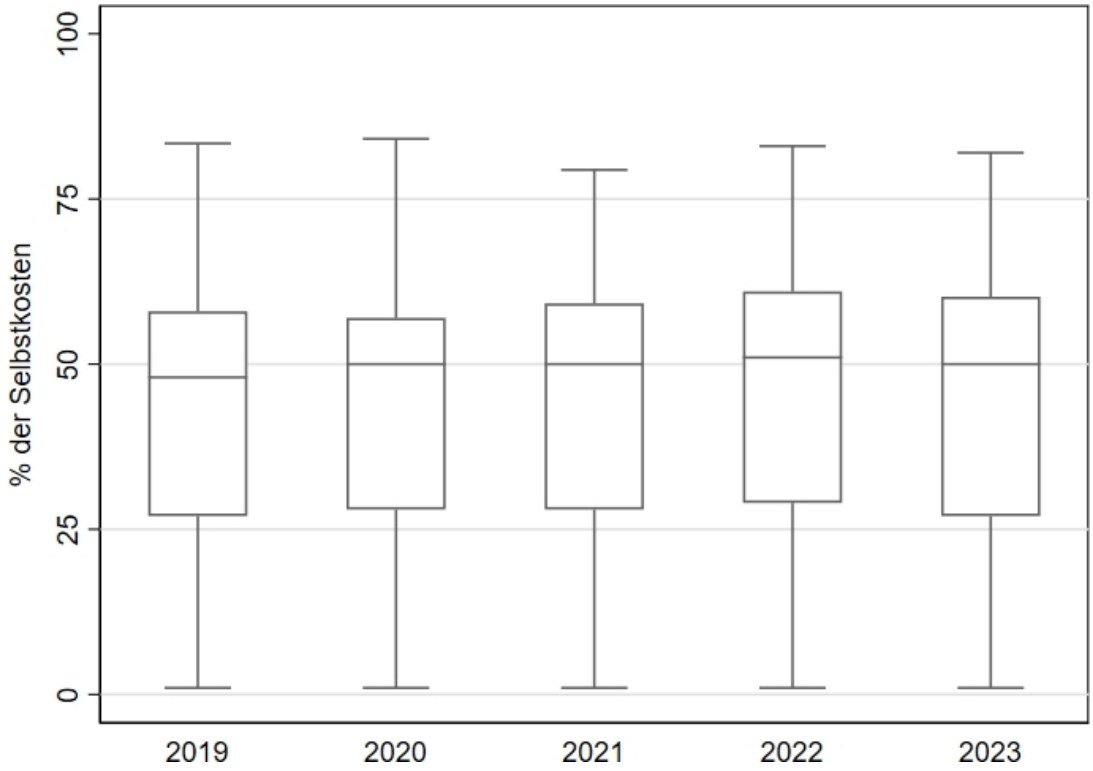
Figure 112 shows the **share of agricultural products in the cost price**[203] of the manufacturing companies surveyed by the BWB. As several suppliers several products with different characteristics, it is not possible to differentiate between product groups in a meaningful way. The boxplo t[(204)] shown is a graphical summary of the distribution of a variable and depicts five location parameters of the variable. The figure shows that (i) the influence of agricultural products costs can range from *non-existent* to *very large*, which makes it difficult to make general statements about the effect on end consumer prices. It can also be seen that (ii) the changes over the years are small, although substitution effects in the quality of input factors cannot be ruled out (cf. ski inflation in 6.4). For the sake of good order, it should be noted that the interpretability is restricted by the limited data quality. It should also be noted that the share of cost prices is not the same as the share of final consumer prices. However, the influence of price increases for agricultural products on the food industry can certainly be considered relevant. With regard to the increase in the

[203] **Cost of goods sold** refers to the costs incurred directly in the manufacture of the product. Typical components are material costs, labor costs, manufacturing costs and administrative and distribution costs.

[204] **Boxplot:** Specifically, these are the minimum, the 1st quartile (the value of the variable in an ordered data series below which 25% of the data lie; with 100 observations, it is therefore as large as the 25th smallest observation), the median (in the previous example, the 50th smallest observation), the 3rd quartile (the 75th smallest observation) and the maximum.
The lower horizontal line outside the box the minimum, the lower end of the box the 1st quartile, the horizontal line inside the box the median, the upper end of the box the 3rd quartile and the horizontal line above the box the maximum.

However, there has been no significant change in the share of agricultural products in the cost price.

Figure 112: Proportion of the cost price of agricultural products for manufacturing companies



Source: Request for information.

To strengthen competition in the food sector, the German government the **Food Transparency Report on** July 5, 2023[205], which will be published regularly from now on.([206]) The Food Transparency Report will enable the public to see the prices at which food retailers purchase 22 products and whether falling purchase prices actually reach them. This is intended to close a transparency gap. The report is published by the AMA and supplements the extensive market information it already provides.

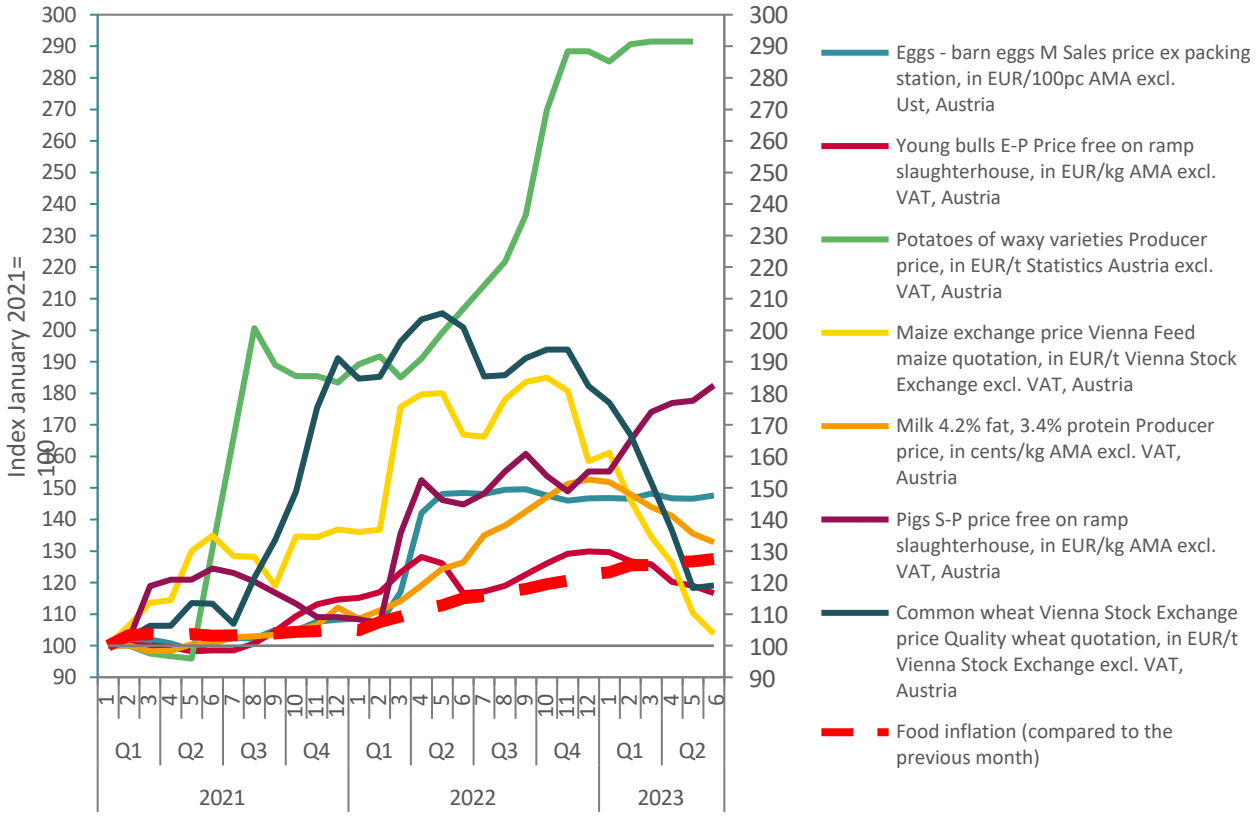
It should be noted that general statements are not easy to make due to the diversity of agricultural products. Figure 113 shows the indices presented by AMA Marktinformation in the section **Agricultural prices Austria**. It the development of (sales) prices at monthly level for eggs, young bulls (young, uncastrated and not yet sexually mature male cattle), potatoes, maize, milk, pigs and soft wheat. For orientation purposes, the monthly change in food inflation was also included (all based on January 2022

[205] https://www.bundeskanzleramt.gv.at/medien/ministerraete/ministerraete-seit-dezember-2021/66-mr-5-jul.html
[206] https://www.ama.at/marktinformationen/preistransparenz/aktueller-bericht

= 100). It shows the sometimes sharp increases, such as for potatoes or soft wheat, as early as 2021. In 2022, which is also the focus of the sector study, there is also usually a significantly stronger price increase than for food inflation. It is striking that certain agricultural market prices have been since the start of 2023. This applies in particular to maize, soft wheat and, to some extent, milk and young bulls. For others, such as eggs and potatoes, prices have stagnated.

Pig prices, on the other hand, are continuing to rise. Further price developments for pigs also on the spread of African swine fever (ASF), which has not yet occurred in Austria. However, due to numerous cases in Eastern Europe, the risk of importation is very high. If ASF occurs on a farm, all animals must be killed. If ASF occurs "only" in wild animals, comprehensive and large-scale trade restrictions must be observed in the affected areas. The disease therefore leads to major economic losses that will affect the entire domestic pig industry and downstream businesses[207].

Figure 113: Relevant Austrian agricultural prices according to AMA market information in Austria



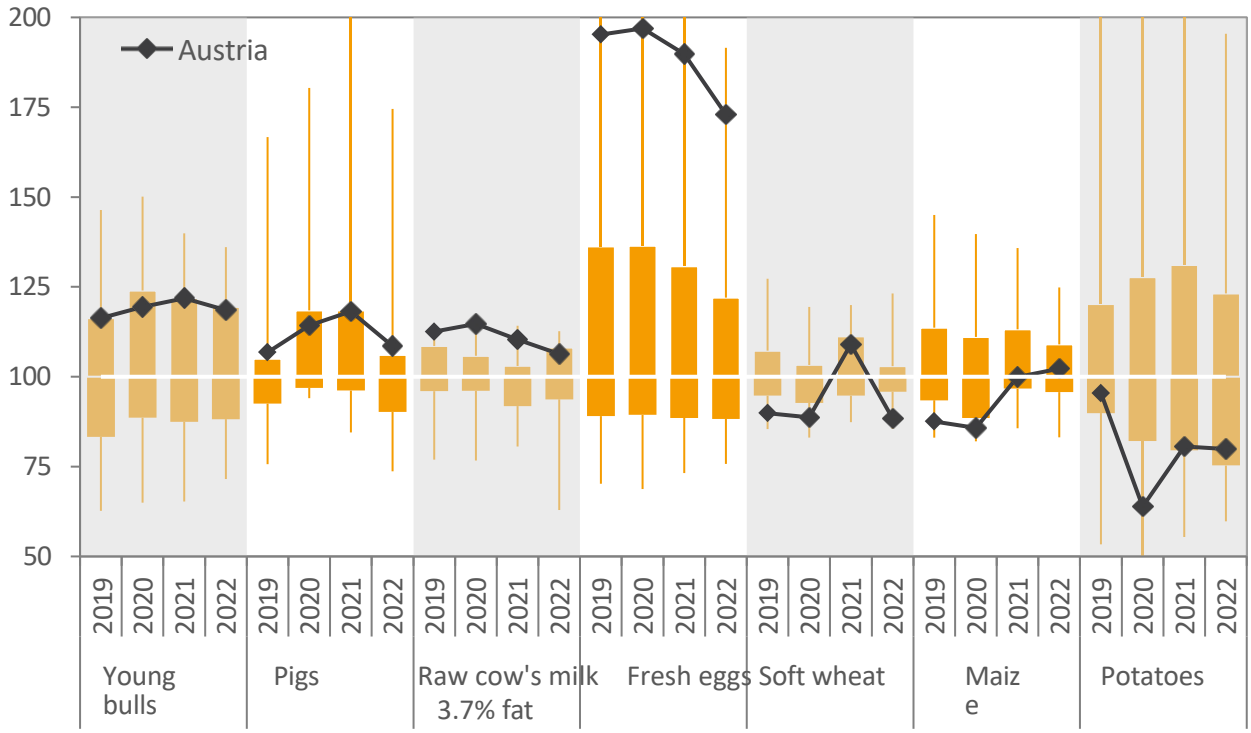
Source: AMA market information, Statistics Austria.

Figure 114 uses indices from Eurostat, which are similar to the indices from AMA Marktinformation in the agricultural prices Austria section shown above, to illustrate the relative development in an EU comparison. For this purpose, the prices are normalized to the median in the EU-27 to 100 and then

[207] https://www.verbrauchergesundheit.gv.at/tiere/krankheiten/asp_allg.html [as at: 20.10.2023]

as a boxplot (boxplots are explained in footnote 204). For each year, the figure shows the distribution within the EU-27 countries and the development in Austria (black line). If the black line is above the median, prices in Austria are above the EU-27 median; if it is below, prices in Austria are below. The development over time shows a deterioration in the price level in Austria compared to other EU member states for some indices in 2020/2021; for milk, eggs (a high level) and potatoes, the price level in the EU comparison has tended to improve for buyers, which puts the development in Figure 113 for waxy potatoes into perspective again somewhat. In 2022, where the AMA data a general absolute deterioration in the price indices for buyers in Austria, a relative improvement or at least sideways movement (e.g. for maize or potatoes) can be observed in the EU comparison compared to the previous year. The significant rise in agricultural market prices in Austria in 2022 is therefore put into perspective somewhat when looking at some indices in an EU comparison.

Figure 114: Relevant agricultural prices in international comparison

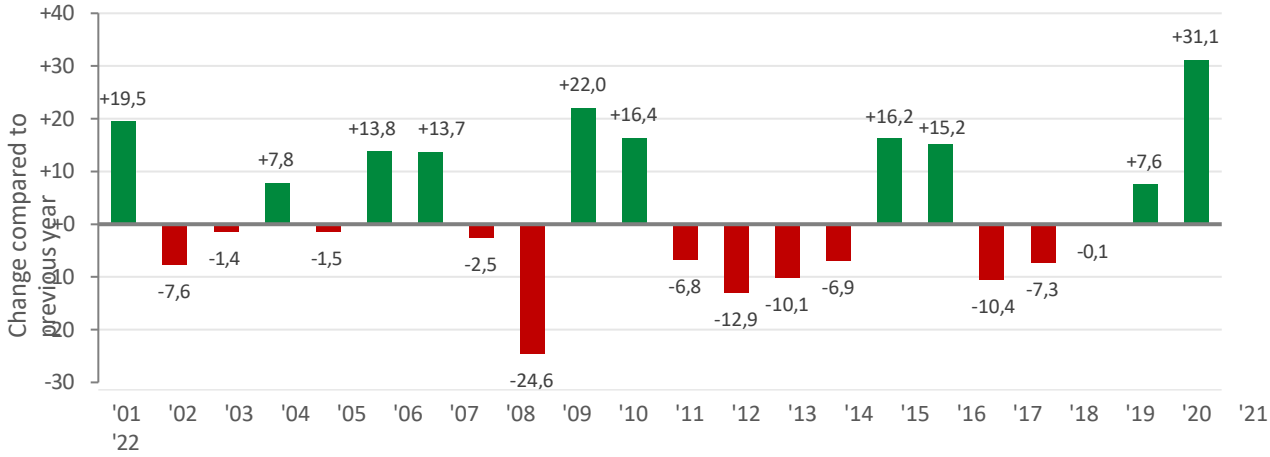


Source: Eurostat.

As part of the requests for information, suppliers were also asked whether there were differences in purchase price trends between **Austrian and foreign agricultural products.** It is true that no representative statement can be derived from the responses. However, the majority of suppliers responded that no significant differences in price negotiations or price increases had been identified and that international and Austrian reference points were very similar. It was also stated that there was hardly any room for negotiation in the case of longer-term contracts, for example.

The impact of the rise in agricultural market prices on **real net corporate profits** per non-paid worker in agriculture is shown in the agricultural accounts of Statistics Austria. **Adjusted for inflation,** these **rose by 31.1% (in real terms)** in 2022 (Figure 115).[208] There was already an increase of 7.6% in 2021. From 2020 to 2022, there was an increase in real net corporate profits per non-salaried worker of the equivalent of 41%. Agriculture thus benefited from the price trend for agricultural products in 2021 and especially 2022. This suggests that the cost increases - including the prices of input products used (fertilizers, animal feed, energy, etc.) - in 2022 will be lower than in the previous year.[209] With regard to income in 2022, the **Green Report 2023**[210] published by the Ministry of Agriculture shows that all types of farms[211] (with the exception of permanent crop farms), as well as mountain farmers and non-mountain farmers, benefited from this development. However, when differentiating between conventional and organic farms, conventional farms fare significantly better in terms of income development.

Figure 115: Real net corporate profits/non-salaried labor, year-on-year change



Source: Statistics Austria.

Over 80% of agricultural labor input is provided by people whose work is remunerated by the income generated agriculture. Their income therefore on the profitability of their agricultural business. Based on the agricultural accounts of Statistics Austria, **profitability in the agricultural sector** can be calculated at current prices.

[208] Non-salaried workers mainly comprise family workers whose labor input is remunerated by the profit generated in the agricultural economy.

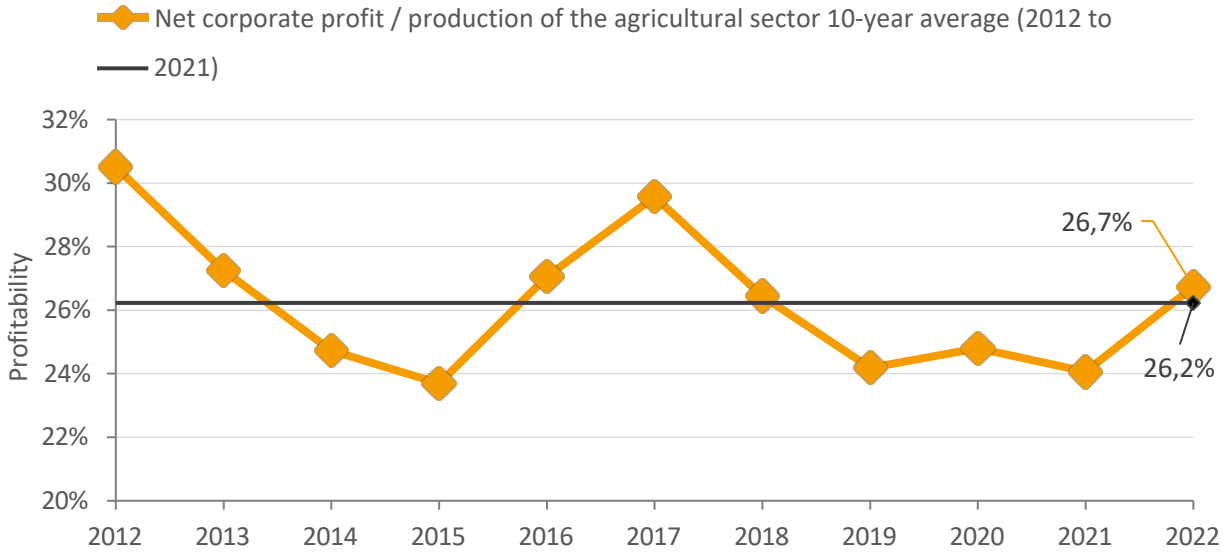
[209] See the press release from Statistics Austria dated April 27, 2023: https://www.statistik.at/fileadmin/announcement/2023/04/20230427LGR2022.pdf;

[210] Green Report 2023 https://gruenerbericht.at/cm4/jdownload/send/2-gr-bericht-terreich/2586-gb2023

[211] **Farm type**: cash crop farms, permanent crop farms, forage farms, processing farms, mixed farms and forestry farms.

calculate. To illustrate profitability, net business profits are set in relation to production in the agricultural sector and compared over time. The net entrepreneurial profit is the net operating surplus (paid labor). This measures the income from land, capital and non-remunerated labor (i.e. interest received is added and rents and interest paid are deducted). The production or production value in the agricultural sector corresponds to the sum of the production of the units in this sector. It includes agricultural goods and services as well as products from non-agricultural secondary activities that cannot be separated from the main agricultural activity. Both market production and non-market production for own use are taken into account. Figure 116 shows that **profitability rose sharply in 2022, slightly exceeding the 10-year average from 2012 to 2021**.

Figure 116: Long-term comparison of profitability in the agricultural sector



Source: Statistics Austria (Economic Accounts for Agriculture).

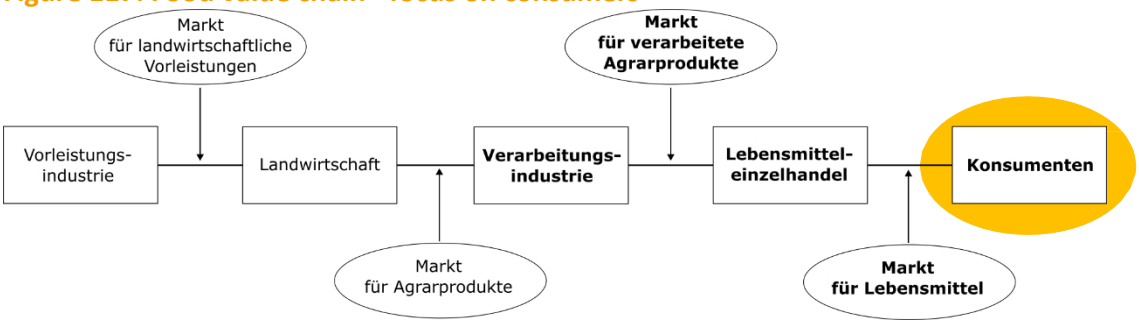
In light of the developments described above, there are many indications that the distortions on international agricultural markets, driven by the Ukraine crisis and the associated supply shortfalls and sanctions, are a significant impact on domestic agricultural prices. It can therefore be concluded that **agriculture is also "driven" by international developments**, in this case by increased international reference prices. Due to this international component and small-scale agriculture, which often tries to compensate for the resulting disadvantages through significantly stronger cooperatives**, restrictions on competition do not appear to have been directly responsible for the price increases for agricultural products in 2021 and especially 2022**. However, restrictions on competition cannot be ruled out in principle. As already mentioned at the beginning, a detailed examination of agriculture and the agricultural input markets is beyond the scope of this sector study and therefore no conclusive statement is possible.

In summary, it can therefore be stated that increased prices on the input market and international and geopolitical developments in the years since 2021/2022 have led to a tightening of the agricultural market, which has resulted in higher prices for agricultural products and higher profits for agricultural businesses. However, due to the data situation and the heterogeneity of agricultural products - as well as the food produced from them - it is not possible to make a serious statement about the general influence of these factors on shelf prices in food retail. However, the results suggest that these factors, as well as others, are reflected in the increased food prices.

9. Demand side, food retail consumers

The previous sections of this report dealt with the individual stages of the value chain at which different types of services are provided. The aim of all these individual stages is to enable consumers at the end of the value chain to purchase individually desired or requested products.

Figure 117: Food value chain - focus on consumers



Source: Own representation.

In order identify and evaluate the needs of individual consumers on the demand side, a **consumer survey** was conducted **in the food retail sector.** The questions, content and results are discussed in detail in section 9.1 below.

In September 2023, the BWB published a focus paper on the food sector study with the topic "Price comparison platforms in the food sector".[212] The most important key points of the focus paper are summarized in section 9.2 . belowIn addition, the paper discusses the great willingness of consumers to actually use the available price comparison platforms for a wide range of products.

9.1. Consumer survey in food retail

In the course of the industry study, some questions also arose that could no longer be answered by the available data material and simple research. Rather, these questions needed to be answered by consumers in the food retail sector. These open questions primarily concerned the demand side of food retail, in particular the purchasing behavior, **priorities and needs of consumers**, but also the relevance of individual and individual decision factors for the choice of the source of supply in food retail. In order to be able to provide qualified answers to these open questions

[212] The BWB's focus paper on the food industry study on price comparison platforms in the food sector is available online at https://www.bwb.gv.at/fileadmin/user_upload/Fokuspapier_Preisvergleichsplatt-formen_Sept_2023_barrierefrei_14.09.2023.pdf.

BWB commissioned a **consumer survey on food retail**[213] . TQS Research & Consulting KG was chosen from a selection of four offers (from six institutes approached) to carry out the survey in accordance with the best bidder principle.

For reasons of transparency, BWB has decided to publish the report on the results of the consumer survey on its website[(214)] at the same time as the report on the sector inquiry. Therefore, the general findings are summarized below and only specifically selected findings - namely (i) store density in food retail, (ii) price transparency and price comparison platforms, (iii) competition from online food retailers and (iv) private labels - are discussed in more detail. The full results report of the consumer survey is available on the BWB website.

In the course of the consumer survey, 1,000 people between the ages of 18 and 65 were interviewed online, representing a representative cross-section of the Austrian population. The exact composition and general characteristics of the consumers surveyed with regard to
(i) gender, (ii) age, (iii) federal state of residence, (iv) number of inhabitants in the home town/city,
(v) highest completed level of education, (vi) occupation, (vii) household size, (viii) children in the household, (ix) net monthly household income and (x) main or shared responsibility for grocery shopping or the purchase of everyday goods can be found in the detailed results report of the consumer survey.

9.1.1. General findings and overview of the individual questions asked

The answers to question 1 ("*Where do you food (supermarket, farm stand, online home delivery, etc.)*?") revealed unsurprisingly that **stationary supermarkets** are the **main source of food**. In addition, four out of ten consumers also buy their groceries from specialist food stores, one in three consumers also visits farmers'/weekly markets and one in five consumers also frequents "farm stores".

The answers to question 2 ("*Where do you usually your groceries?*") and question 3 ("*And which grocery store is your main place of shopping?*") clearly show that the **top 3 grocery stores in** particular **- Spar, Billa and Hofer** - frequented often by the vast majority of consumers and are seen as their main place of shopping, including purchases via their online home delivery service. The top 3 food retailers are jointly represented by

[213] Title: "Survey of food retail consumers"; Instrument: Questionnaire with open and closed questions; Target group: Austrians aged between 18 and 65 who are at least partly responsible for purchasing food and everyday consumer goods; Representative by age, gender and federal state; Method: CAWI - Computer As- sisted Web Interviews; Sample: 1000 interviews; Fluctuation range: ± 3 percentage points (for n = 1000); Research period: 13.09.2023 - 20.09.2023; Commissioned by: Federal Competition Authority; Contractor: TQS Research & Consulting KG. [(214)] BWB website, available at https://www.bwb.gv.at/.

Around 78% of consumers surveyed considered online home delivery to be their main shopping destination.

Question 4 ("*How much do you on your weekly grocery shopping?*") asked how much money the consumers surveyed spend on grocery shopping in a week. This revealed that, on **average, around EUR 135.00 is spent on weekly grocery shopping**, with around 46% of consumers between EUR 101.00 and EUR 200.00.

With regard to online grocery shopping, the answers to question 5 ("*Do you also buy groceries via online home delivery?*"), question 6 ("*What proportion of your grocery shopping is done via online home delivery?*") and question 7 ("*What is the reason why you do not use online home delivery?*") show that although the **proportion of grocery purchases made via online home delivery** is currently **still relatively low**, there **enormous potential for development** in this area, provided that the current resistance can be overcome in favor of consumers. With regard to the further findings of the consumer survey on online LEH, please refer to the detailed explanations under point 9.1.2 or to the results of the extensive surveys in the course of this industry study under point 6.5.

With regard to the individual distance or travel times of the consumers surveyed to stationary food retail stores, the answers to question 8 ("*Which method of transportation do you mainly use to get to your most frequently used supermarket store?*"), question 9 ("*How far is your most frequently used supermarket store your home?*"), question 10 ("*Would you be prepared to accept a longer journey to the nearest supermarket branch if it saved you money?*") and question 11 ("*How much would you save per week if you had to travel 10 minutes longer?*") show that **there a willingness to accept a longer journey in return for a noticeable saving of money**. Please refer to the detailed explanations in section 9.1.2 on the topic of store density in food retail.

With regard to the findings from question 12 ("*Please think of a normal weekly shop. How important are the following characteristics for your grocery shopping?*") and 13 ("*Which of the statements about private labels apply to you?*"), it can be that the consumers surveyed **consider** a **large selection of private label products to be far more important than a large selection of branded products**. Please also refer to the detailed explanations in section 9.1.2 on the topic of private labels in food retail.

The answers to question 14 ("*Which of the statements about "promotions" (e.g. 1+1 free, -25% on coffee ...) apply to you?*") and question 15 ("*In which areas do you try to make savings yourself or reduce your expenditure? In which areas have you done this very much, to some extent, not at all or not all?*"), it can be clearly seen that the

consumers would **prefer** to **find generally lower prices in food retail instead of only during various short-term promotions and price reductions**. In this regard, please refer to the detailed explanations under point 9.1.2 on price transparency and price comparison platforms.

In order to understand and accept the increased food prices among consumers, it can be seen from the answers to questions 16 ("*There were also price increases for everyday goods in the food sector due to inflation. In your opinion, how justifiable were the price increases in the food sector?*") and 17 ("*And in your opinion, how justified are the still higher prices in the food sector?*") show that consumers **do not consider** these **price increases to be justified or justifiable**.

With regard to the findings from question 18 ("*A 'hidden price increase' means that the content of a package has been reduced while the price has remained the same, e.g. 450g of butter instead of 500g. Which statements about "hidden price increases" to you?*"), it can be seen that consumers **believe supermarkets and food retailers have a duty to point out "hidden price increases"** and regard the commercial practice of reducing the pack size as "fraud" and then decide to buy a different product.

From the responses - on the topic of price comparison platforms - from question 19 ("*Suppose there was a free price comparison platform (app/website) for food with your desired functions, i.e. a kind of "cheapskate for food". Which of the following functions would be useful to you?*"), question 20 ("*Would you use such a free website/app with the functions that are useful to you?*"), question 21 ("*Would you also be prepared to pay something for such a website/app that enables you to compare prices?*") and question 22 ("*Suppose you used a price comparison platform and it turned out that you could save at least 10 euros a week by changing your grocer. What would you most likely do?*"), it can be seen that **consumers want to benefit from using price comparison platforms**. Private price comparison platforms can useful functions that can enable a comprehensive price comparison for a large number of individual products and product groups. There is a particular need for the ability to compare not only the prices of a few foodstuffs, but also **entire shopping baskets/shopping lists that** can be compiled **from all foodstuffs in the food retail sector.** In this regard, please refer to the detailed explanations in section 9.1.2 on price transparency and price comparison platforms.

The answer to question 23 ("*Do you have a customer card in the food sector (e.g. jö Bonus Club)?*") shows impressively that **almost 80% of consumers** have **(at least) one customer card in the food sector.** This is also consistent with the answers to question 14 ("*Which of the statements about "promotions" (e.g. 1+1 free, -25% on coffee ...) apply to you?*"), according to which cross-sector customer loyalty programs are seen as predominantly positive and useful.

For question 24 ("*Would you say that the changes in recent years (e.g. coronavirus crisis, inflation crisis) have meant that you have more, the same or less financial resources available for everyday life?*"), question 25 ("*And which of the following statements is currently most likely to apply to you personally?*") and the related question 15 ("*In which areas are you trying to make savings yourself or reduce your expenditure? In which areas have you done or tried to do this very much, to some extent, not at all or not at all?*"), a large proportion of **consumers** responded that the crises of recent years (especially corona, inflation) have meant that they have **slightly less or even much less financial resources available** on average **for everyday life** than before. In this context, however, it should also be noted that around half of consumers are nevertheless **financially satisfied or even carefree**. However, more than a third of consumers are currently facing a **tight financial situation.** In addition, it can also be seen that **consumers spread their savings across almost all areas of life and do not explicitly focus on the cost of grocery shopping**.

9.1.2. Findings on the specific issues

9.1.2.1. Store density in LEH

Question/background: "*Compared to Germany, Austria has a higher density of food retail outlets (according to Statista.de, around 60 outlets/100,000 inhabitants in Austria compared to 45.5 in Germany, i.e. over 30% more in Austria). This high number of stores is accompanied by higher fixed costs throughout Austria (especially for the operation of the stores), which have to be paid by consumers via the retail price. Do consumers want this high branch density or would fewer branches with lower prices in return be more desirable?*"

61% of all consumers surveyed choose the car as their primary method of transportation to the most frequently used supermarket (question 8). **At a** clear distance in second place **(23%), this journey is made exclusively on foot.**

For around half of all consumers surveyed, the most frequently used supermarket branch is **no more than five minutes** away (question 9). For another third of all consumers surveyed, it is a maximum of ten minutes; on average across all consumers surveyed, the most frequently used supermarket branch is around eight minutes away.

In response to question 10 - regarding the willingness to accept a longer commute in order to save money - **almost three quarters stated "very" or "rather likely"**. In response to the follow-up question 11 - regarding the required savings per week for an extra ten-minute trip - the consumers surveyed indicated an average expected saving of around EUR 25.00. If this is compared to the average weekly purchase (question 4) of EUR 135.00, this would mean a saving of 18.5% for an extra trip of ten minutes. A closer look at the individual income groups among consumers reveals a more differentiated picture, as households with higher weekly grocery shopping expenses are willing to an extra ten-minute trip for a lower saving in relation to their grocery shopping than households with lower weekly grocery shopping expenses.

Conclusions:

- Consumers are likely to have become **accustomed to the Austrian level of store density** - five to ten minutes to the nearest supermarket. An extraordinary willingness to accept ten additional (driving) minutes could only be offset by high monetary compensation.
- Rapid accessibility to the nearest shopping facility is therefore **key decision-making factor**. This underlines the importance of a narrow or regional market definition in the context of merger control.

9.1.2.2. Price transparency and price comparison platforms

Question/background: *"How do consumers rate the current price transparency in Austrian food retail? Would consumers prefer permanently lower prices (e.g. - 5% to the current level) instead of higher (e.g. -25%) but temporary discounts? What influence can price comparison platforms in food retail have on purchasing behavior?"*

-) Price intransparency through promotions and shrinkflation ("deceptive packaging")

Some of the companies surveyed that are active in food retailing stated that the price level in food retailing not comparable between Austria and Germany. This was largely justified or explained by the fact that in Germany the proportion of food sold on special offer is only 12%, whereas in Austria it is around 40%[215].

In the course of the consumer survey, consumers were therefore asked for their assessment of this issue. After all, the economic consideration that constant discounts and promotions can contribute to a lack of transparency regarding the prices of food retailers among consumers is not unfounded.

With regard to promotions or short-term discounts on individual products or entire product groups (e.g. 1+1 free, -25% on coffee), the consumer survey clearly shows that they would prefer to find more permanently low prices and fewer short-term promotions in food retail. At first glance, it seems contrary to this that consumers feel "good" after buying a product on promotion, as they would have saved something. The statement that the large number of promotions would cause stress among respondents received the least approval. This leads to the conclusion that consumers are able to cope with the high number of Austrian promotions.

Question 18 looked at the topic of "shrinkflation". This refers to hidden price increases in which the manufacturer reduces the filling quantity while the price remains the same - usually without explicit labeling. When asked about this, consumers unanimously stated that they believe food retailers have a duty to make customers aware of such quantity changes. They would prefer a "simple price increase" with the same quantity rather than the practice described. The VKI survey of 1,400 KONSUMENT community members in September 2023 also gave a very clear picture against the practice of shrinkflation (see point 6.4 and FN 108).

[215] https://www.derstandard.at/story/3000000176456/rewe-chef-haraszti-harte-arbeit-statt-showgipfel

Conclusions:

- Consumers want **fewer promotions and more price transparency**.
- Consumers **want permanent low prices**, i.e. lower regular sales prices. However, discounts also represent an emotional component to encourage consumers to make purchasing decisions or to choose the supermarket they visit.
- Consumers consider transparency to be particularly important. Undeclared quantity changes are therefore potentially perceived as "deception". **Price increases would be preferred over volume reductions**.
- Food retailers have sovereignty over the shelf price. Food retailers are jointly responsible for **making** undeclared **quantity changes or manufacturer intransparency visible in the event of changes to the product**. Essentially, this is a consumer protection law problem that could be solved by **adapting or tightening up the existing consumer protection provisions** in this regard. On the subject of "shrinkflation and skim inflation", see point 6.4.
- In order to improve **price transparency for consumers** in the case of promoted products, it is suggested that the open legal question of whether**, when announcing a price reduction** for tangible goods in amounts or percentages, this price reduction must be measured on the basis of the lowest price of the last 30 days or whether this must only be stated in the sense of an additional information obligation be clarified[(216).]

-) Price transparency through price comparison platforms

The aim of questions 19 to 22 was to various functions of price comparison platforms according to their usefulness. As a result, all the available functions were rated as "very useful" or "very useful".
rated "rather useful". Overwhelmingly, 85% of respondents were willing to use a free price comparison platform with the functions that were useful to them. Equally striking was the fact that 25% of those consumers who would use a price comparison platform would even be willing to pay to use it.

The result is also significant in that from a weekly saving of at least EUR 10.00, around 40% of the consumers surveyed would change grocery retailers, even if they ten minutes further away. An analysis of the consumer groups according to weekly grocery expenditure shows that the willingness to change grocery retailer is broadly based and does not decrease significantly even with high weekly expenditure.

In this context, it also seemed necessary to investigate the question of whether a saving of 3.3% or more (e.g. 10% for purchases of around EUR 100.00 per week) appears possible through the use of price comparison platforms. Among other things, the surveys on the topic of price comparison

[(216)] This topic was discussed at the national conference on consumer protection and product safety on 28.6.2023.

platforms have shown that there is price parity for many foods - between the largest food retailers. Surveys by the AK[217] and the VKI[218] show that there are nevertheless price differences - in comparable shopping baskets - between different food retailers. These show, for example, a price difference of around 5% for (i) branded products or just under 3% for (ii) entry-level products. The potential and need for well-functioning and informative price comparison platforms is therefore unrestricted.

Conclusions:

- At 85% of respondents, **the majority of consumers are willing to use price comparison platforms**, 25% of whom would even pay to use a price comparison platform. At least 80% of all respondents show a willingness to change grocery retailers if this would them to save at least EUR 10.00 on their weekly shopping. The demand and need for well-functioning and informative price comparison platforms undisputed. See also the separate section on "Price comparison platforms" under point 9.2.
- It is to be welcomed that the responsible ministry has indicated that it intends to implement the recommendations set out by the BWB in the "Focus paper on price comparison platforms" - at least in part - so that private price comparison platforms have **unbureaucratic, decentralized and fast access** food retail data. However, exploiting the potential of well-functioning and informative price comparison platforms - for the benefit of all consumers and especially the lower income groups - requires a sufficient density of information on the products to be compared. Price comparison platforms are only attractive to consumers if they have access to information on **all foods and** not just limited to "staple foods". Otherwise, the benefits of such price comparison platforms for consumers would be limited.

9.1.2.3. Competition through online LEH

Question/background: *"How widespread is the use of online home delivery? What obstacles exist to online home delivery becoming a "threat" to brick-and-mortar food retailers?"*

The answers to questions 5 to 7 show that almost 25% of the consumers surveyed also use online home delivery for groceries, covering almost a third of their grocery shopping. However, from the point of view of the consumers surveyed, there are also several reasons that speak against the use of online home delivery when buying groceries. The desire to see the goods before buying them is particularly noteworthy. The payment of delivery fees, on the other hand, is not of major importance. In the area of online home delivery, the importance of the top 3 food retailers is also significantly greater (14%) than the proportion of online grocery retailers that are not active in stationary food retailing (9%). An exclusive chapter is dedicated to online grocery, which can be found in section 6.5.

[217] Available online at https://noe.arbeiterkammer.at/warenkorb.

[218] Available online at https://konsument.at/supermarktpreise22.

Conclusions:

- **Online LEH is likely to become even more important in the future**.
- The growth of online LEH is hampered by the fact **that many consumers face barriers to buying their groceries online**.

9.1.2.4. Own brands/branded articles

Question/background: *"Do consumers need a large selection of brands for their purchases and are they willing to accept a higher price level to cover the costs of the selection? Or is the trend towards own brands, which in some cases are replacing or replacing branded products, also in the predominant interest of consumers?"*

The question about consumer attitudes towards private labels and branded products is particularly interesting. The results of the survey show that the majority of consumers are of the opinion that private labels offer monetary savings compared to branded products and are of equal quality. In contrast, only a few of the consumers surveyed believe that private labels are completely replacing branded products. However, it is clear that the consumers surveyed **consider** a **large selection of private labels to be far more important than a large selection of branded products**. A separate chapter is dedicated to the topic of "Product and range policy", which can be found under point 6.2.4.

Conclusions:

- The partly publicly discussed displacement of branded products by private label products seems to be of secondary importance for consumers. Few consumers also view this critically. Rather, a **large selection of private labels** seems **far more important** to them **than a large selection of branded products.**

9.2. Price comparison platforms

On 15.09.2023, the BWB published the **focus paper on the food sector study on the topic of price comparison platforms** in the food sector.[219] This focus paper deals with the topic of strengthening competition in food retail by increasing price transparency for consumers. The key points of the focus paper summarized below. For detailed explanations, please refer to the content of the focus paper to avoid repetition. The consumer survey commissioned by BWB in the food retail sector clearly shows that the majority of consumers willing to use price comparison platforms to gain a monetary advantage (see point 9.2.2).

(219) The publication of 15.09.2023 and the full-text document Focus Paper on the Food Sector Inquiry on Price Comparison Platforms are available online at https://www.bwb.gv.at/news/detail/branchenuntersu- chung-lebensmittel-fokuspapier-preisvergleichsplattformen.

9.2.1. Summary of the focus paper on price comparison platforms

Due to increasing inflation, a food summit was in May 2023 with the participation of several federal ministers and the BWB. Among other things, the possibility of a transparency database for food prices was discussed. BWB took this as an opportunity to survey five existing Austrian food price comparison platforms on the status quo.

Some of the price comparison platforms surveyed differ in their focus. Some historical price histories, while others work on specific shopping baskets or filters (e.g. organic farming) to offer consumers useful tools for effective price comparisons. The operators of price comparison platforms are confronted with various legal uncertainties, including the general terms and conditions of grocery retailers and "web crawling" (the automatic search of available online stores) in general. "Matching" - i.e. creating product pairs across the various online stores of grocery retailers - particular effort when operating a price comparison platform. In the survey, the operators expressed clear wishes and ideas for a simpler, more effective and legally compliant continuation of their price comparison platforms. The content of these wishes correlates with a statement from the German Retail Associationwhich highlighted three specific sources of error in price comparison platforms. In order to improve the functionality of price comparison platforms in general, these sources of error and legal uncertainties need to be eliminated.

The submissions from the operators of the price comparison platforms and the surveys and interviews conducted by BWB in this revealed indications that food retailers already independently monitor competitors' prices and automatically adjust their own prices accordingly. The current situation shows asymmetric price information in favor of companies, whereas the lower price transparency for consumers can lead to generally higher prices in food retail. In times of high inflation and frequent price changes, price comparison platforms offer consumers the opportunity to compare prices more effectively in order to make informed purchasing decisions and stimulate competition in the food retail sector.

The BWB therefore proposed the following **measures** (abbreviated here) **to strengthen price transparency in the food retail sector:**

1. Obligation of larger food retailers in particular to make certain product information accessible via an API interface, i.e. to enable the download of data. A qualified public (such as price comparison platforms, the BWB and consumer protection organizations) should be granted access under certain conditions.
2. In addition to product information that must be made accessible in any case (in particular EAN barcode, product name, manufacturer, brand, price per quantity sold, quantity, etc.), further information (e.g. allergens) is also conceivable as an option.

3. Creation of a legal framework to allow the use of information from the API and to override any conflicting terms and conditions.
4. Voluntary participation of retailers who are not subject to the obligation under point 1 in order to further increase competition.

For the legal implementation of the above recommendations, the amendment of the Price Indication Act (PrAG), the E-Commerce Act (ECG) and the Fair Competition Act (FWBG) was proposed. These could define the obligations of certain retailers, the specific requirements and the ongoing updating of data thus ensuring the easier and more secure operation of price comparison platforms. To the best of our current knowledge, the responsible ministry is working on implementing the recommendations made by the BWB in the focus paper on price comparison platforms.

9.2.2. Consumers want to and can benefit monetarily from price comparison platforms

The consumer survey commissioned by BWB in the food retail sector (see point 9.1 for details) clearly shows that the majority of consumers surveyed are willing to use a free price comparison platform and would also switch food retailers for monetary benefits. The benefit or advantage for consumers could be further increased by the sustainable establishment of highly functional price comparison platforms, as this could lead to additional reductions in the average price in food retail. With a comparable measure, the practical example of Israel shows that a price-reducing effect can be achieved through greater transparency; prices there have fallen by an average of 4-5%[220].

This high willingness is based on the fact that price comparison platforms useful functions that enable a comprehensive price comparison for a large number of products and product groups. There is a particular need to recognize that these price comparison platforms can be used to compare not only the prices of a few groceries, but also entire shopping baskets or shopping lists. Based on these shopping baskets, an effective comparison of planned purchases can then take place and the actual shopping behavior can be planned or adjusted according to the consumer's individual preferences. To this end, it is **essential to ensure that the price comparison platforms have access to information on all foodstuffs in the food retail sector** and not to restrict this to "basic foodstuffs". If this were restricted, there would be a risk that product groups that are relevant or necessary for a large number of consumers would not be available for a price comparison and that the full potential of price comparison platforms could not be exploited due to missing product groups. Another important cornerstone for a successful model is that private price comparison platforms provide the necessary data **unbureaucratically,**

[220] *Ater/Rigbi*, The Effects of Mandatory Disclosure of Supermarket Prices, 2017.

decentralized and quickly; the creation of restrictive regulatory structures and processes could turn this advantage into the opposite.

In question 19 of the consumer survey ("*Suppose there was a free price comparison platform (app/website) for groceries with your desired functions, i.e. a kind of "cheapskate for groceries". Which of the following functions would be useful for you?*"), the following desired functions, some of which already exist and some of which are planned, were rated as "very useful" to "rather useful":

- Price comparison with other food retailers for individual products.
- Price comparison with other grocers for my shopping cart ("My shopping list").
- Cross-retailer search function for products according to product groups, e.g. staple foods/baking agents/flour/grip.
- Price alert for products, i.e. when a product reaches or falls below a maximum price defined by me.
- Historical price history of a product at a specific food retailer (e.g. "Price change in the last 6 months").
- Cross-retailer search function for products according to filters, e.g. organic, vegan, quality seal, allergens, regionality.

If price comparison platforms are given the necessary backing by the legislator and, in particular, offer the functions described above (as far as possible), consumers will have a far-reaching opportunity in future to compare prices in food retail, save money when buying food and thus strengthen the demand side.

10. Fair supply relationships in the agricultural and food supply chain

10.1. Introduction

10.1.1. Regulatory framework

Directive (EU) 2019/633 on unfair trading practices in business-to-business relationships in the agri-food supply chain[221] (UTP Directive), which came into on 17 April 2019, obliges EU Member States to ensure a minimum level of protection for suppliers of agri-food products against the use of unfair trading practices by their customers that are the result of an imbalance in negotiating power, which is particularly common in this sector.

The recitals of the UTP Directive point out that, although business risks occur in all economic activities, uncertainty factors are particularly significant in agricultural production due to its dependence on biological processes and its susceptibility to weather conditions. The perishability and seasonality of many products exacerbate this situation.

The protected suppliers are agricultural producers or any natural or legal person or group of such persons (e.g. producer organizations) who sell agricultural and food products (e.g. farmers, processors, but also retailers/wholesalers). Sales to consumers are not included.

Buyers are natural or legal persons (including groups of such persons) who purchase agricultural and food products (e.g. processors, traders, purchasing alliances, local authorities, etc.).

The term agricultural and food products includes products listed in Annex I to the TFEU (e.g. meat, milk, vegetables, but also cut flowers) as well as foodstuffs made from such products (e.g. fruit yoghurt, chocolate cream).

The annual turnover of market participants is used as an indicator of the imbalance between suppliers and buyers, with the UTP Directive setting thresholds for its applicability. Turnover must be determined on the basis of the Annex to the SME Communication of the

[221] OJ L 2019/633, 59.

European Commission[222]. This means, among other things, that the turnover of so-called partner companies[223] must be taken into account proportionately and that of affiliated companies[224] in full. Central components of the UTP Directive are a list of practices that are prohibited in any case (black list) and a list of practices that are prohibited unless they have been clearly and unambiguously agreed between supplier and buyer in the supply agreement or in a subsequent agreement (gray list). Furthermore, EU Member States must (at least) establish an **enforcement authority** with a minimum set of powers. As this is a minimum harmonization, EU Member States are free to maintain or introduce stricter rules.

In Austria, the UTP Directive was implemented by an amendment to the Federal Act on the Improvement of Local Supply and Competition Conditions, which is now known as the Fair Competition Conditions Act (FWBG) (Federal Law Gazette I No. 239/2021). The legislator has hardly gone beyond the **minimum requirements** of the UTP Directive. The two lists of prohibited practices were adopted as Annexes I and II to the FWBG, whereby Annex I (absolutely prohibited practices, blacklist) was supplemented by a discrimination clause and a provision to protect direct marketing. With regard to the turnover thresholds, an additional threshold was introduced - limited until December 31, 2025 - so that business relationships between suppliers with an annual turnover of no more than EUR 1 billion and buyers with an annual turnover of more than EUR 5 billion also fall within the scope of the UTP provisions of the FWBG.

The BWB was appointed as the enforcement authority in Austria, whereby its powers essentially correspond to those in the area of antitrust law enforcement. It can apply to the Cartel Court to impose a fine of **up to EUR 500,000.00** on buyers who violate the prohibitions contained in Annexes I and II.

In addition to the BWB, the Federal Cartel Prosecutor, the Austrian Federal Economic Chamber, a Chamber of Agriculture or the Presidential Conference of Chambers of Agriculture, associations representing the economic interests of entrepreneurs, other supplier organizations and associations of such organizations, if these interests are affected by the subject matter of the proceedings, and any entrepreneur whose legal or economic interests are affected by the subject matter of the proceedings, are entitled to assert claims for injunctive relief in connection with prohibited trade practices before the Cartel Court.

The FCA had already addressed the issue of unfair trading practices before the UTP Directive came into force, although it did not focus on the agricultural and food supply chain.

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[222] Recommendation 2003/361/EC concerning the definition of micro, small and medium-sized enterprises, OJ L 124, 20.5.2003, p. 36.

(223) Shareholding in another company with regard to capital or voting rights of 25% to 50%.

(224) An entity holds a majority of the voting rights of another entity or has the ability to exercise a controlling influence over another entity.

limited. In October 2018, in response to complaints about problematic business practices - which are the result of an imbalance in the supply chain - the BWB published the Position on Business Conduct (**Fairness Catalog**). This cross-industry guide was intended in particular to help shape supplier-customer relationships. Following the implementation of the UTP Directive, the FCA published a revision of this guide in 2022[225].

In addition to the enforcement authority, the amendment to the FWBG also established an independent first point of contact - the "Fairness Office" as an office of the Federal Ministry of Agriculture, Forestry, Regions and Water Management - to which suppliers can also turn anonymously and confidentially with complaints about unfair trading practices. The aim is to resolve conflicts in an unbureaucratic manner. The Fairness Office can - with the consent of the complainant - refer the matter to the respondent or a suitable interest group and, at the request of the complainant and respondent, to an arbitration board. Contacting the first point of contact is particularly useful if a supplier wishes to clarify whether it is exposed to an unfair trading practice that falls under the prohibitions of Annexes I and II of the FWBG and if an amicable solution to the problem is sought in the interests of a prosperous continuation of the business relationship with the buyer. However, referral to the Fairness Office is neither a prerequisite for a complaint to the BWB, nor does it preclude such a complaint.

The new provisions came into force on 01.01.2022. This does not include the provision that the BWB to file an application for a fine with the Cartel Court (Section 6 para. 2), which only into force on 01.05.2022. Until this date, supply agreements that had already been concluded before the UTP provisions came into force also had to be brought into line with the new legal requirements.

10.1.2. Background and objectives of the investigation into unfair trading practices

Possible restrictions or distortions of competition, which make the initiation of an industry investigation appear expedient, can have various causes. The prevalence of unfair trading practices in the agricultural and food supply chain that fall within the scope of the FCA can provide valuable information in this context. In recent years, the BWB has already been confronted with complaints about problematic business practices that are the result of an imbalance in the supply chain, whereby the companies concerned were mostly unwilling to provide detailed information from which their identity could be deduced.

The BWB only received explicit complaints or information in connection with the new legal situation regarding unfair trading practices in the course of 2023. One of the reasons for this reluctance may again be the so-called "**fear factor**", i.e. the fear of affected

[225] https://www.bwb.gv.at/fileadmin/user_upload/_BWB_Fairnesskatalog_.pdf.

Suppliers fear that a complaint to the enforcement authority legal proceedings in which their identity would ultimately become known could lead to the termination of business relationships. Other enforcement authorities in the EU are also confronted with the problem of the fear factor. This assumption is underpinned not least by the Fairness Office's activity report[226]) for 2022. For the reporting period, this report shows **only 21 substantiated complaints** in connection with facts of the FWBG. At the same time, however, it is also noted that none of these cases could be forwarded to the BWB because the complainants were too afraid of disclosing their identity and thus losing the business relationship.

Against this background, the BWB considered it appropriate to take closer look at the relationship between suppliers and buyers as part of the sector inquiry into foodstuffs in order to obtain an overview of the prevalence of unfair trading practices and how companies deal with them. Although the results of such an investigation cannot be equated with those of an investigation conducted on the basis of a specific case of suspicion, they are nevertheless suitable for drawing conclusions for the efficient enforcement of the FWBG and for any necessary legislative measures.

10.1.3. Method

BWB conducted an online survey of **over 1,500 suppliers of the four largest Austrian food retailers based in Austria** and (on a voluntary basis) in Germany supplied food products (excluding alcoholic beverages) above a turnover threshold of EUR 100,000.00 in 2021 or 2022. The questions related, among other things, to the structure, size and turnover of the companies, their dependence on their customers and their experience with the unfair trading practices contained in Annexes I and II to the FWBG. In addition to the customers of the four market leaders in food retail, the latter also related to the two market leaders in food retail and other customers from food retail and food retail. Subsequently, the four market leaders in Austrian food retail were also confronted with questions on the scope of application of the FWBG. The key results of these surveys are in the following chapters. This is followed by BWB recommendations.

[226] https://info.bml.gv.at/dam/jcr:6a430dd3-bd71-44b0-8c70-19b27812b943/T%C3%A4tigkeitsbericht%202022%20-%20Fairness%20B%C3%BCro.pdf.

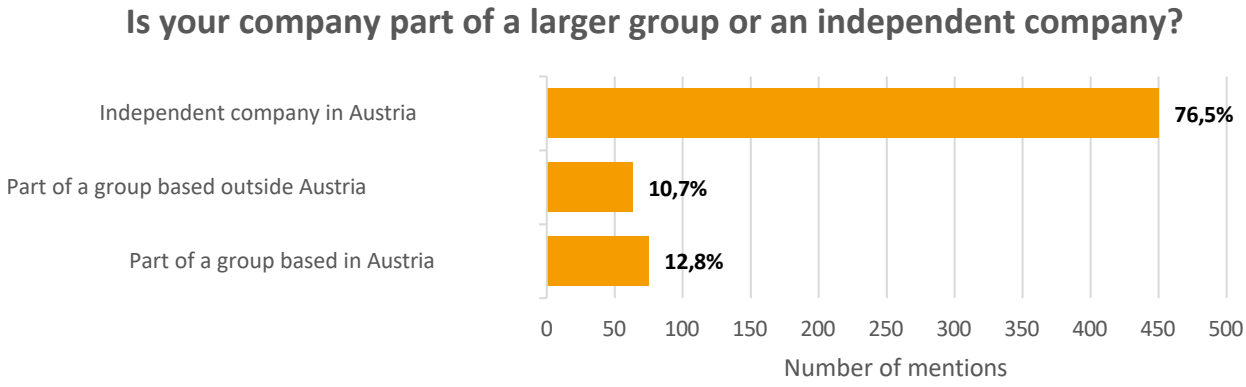
10.2. Request for information from food retail suppliers

10.2.1. Introductory remarks

In March 2023, 1,000 food retail suppliers from Austria and - on a voluntary basis - 500 from Germany were surveyed on the FWBG. In total, 670 (45%) of the suppliers responded to the request for information in full, with 633 (63%) [227]) of the Austrian suppliers and only 37 (7%) of the German suppliers responding. Due to the very low response rate from Germany, the German responses were excluded in their entirety for the following analysis and the focus was placed purely on Austria.

The following four charts provide an overview of the basic composition of the **588** company responses for the assessment.[228] The charts therefore represent the factor n=588 as the basic variable.

Figure 118: Company structure

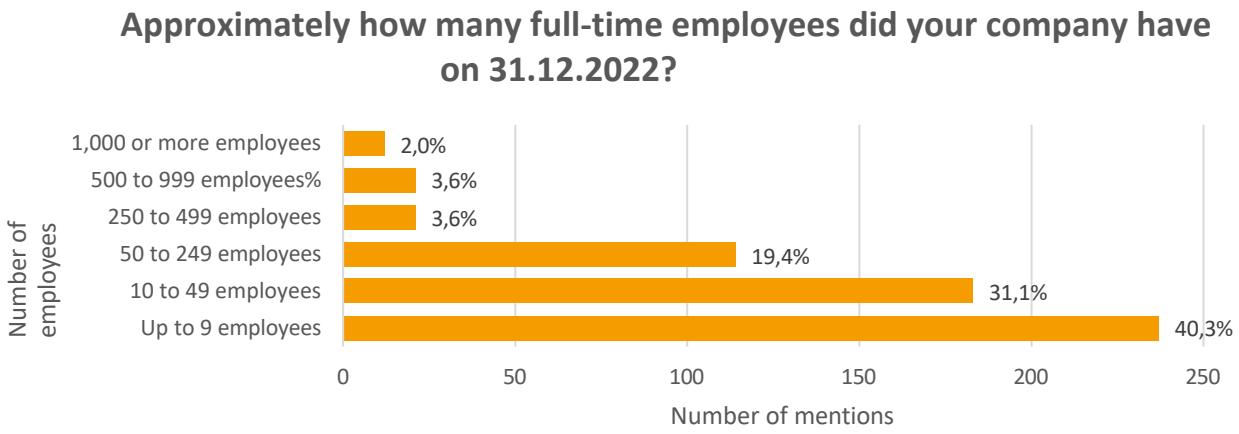


Source: Request for information.

[227] In principle, there is a legal obligation to respond to requests for information from the BWB. However, due to the tight schedule, a possible role of the "fear factor" and the satisfactory response rate for the purposes of the sector inquiry, the authority has refrained from ordering the provision of information by official notice in the remaining cases.

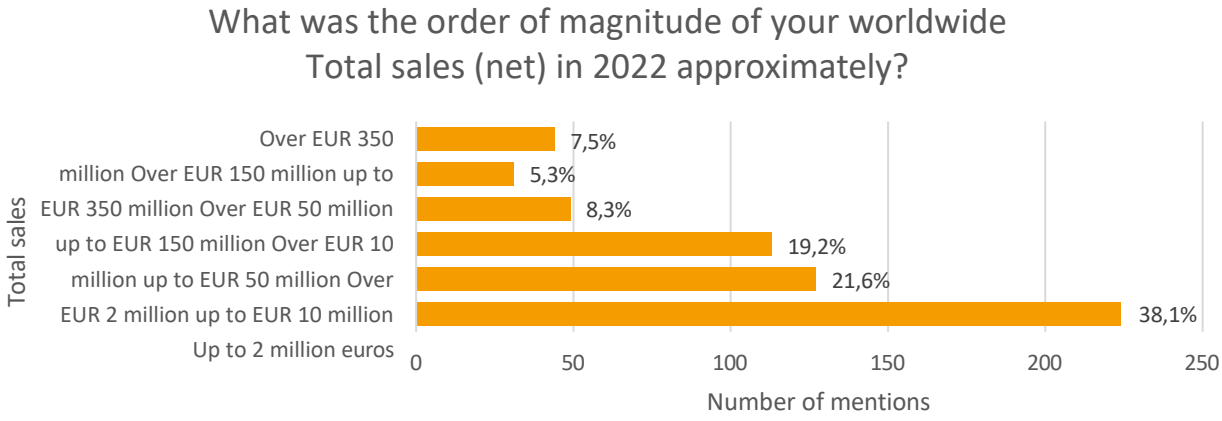
[228]) The following companies were excluded from the 633 responses: (i) does not supply food retailers; (ii) not a food supplier; (iii) duplicate responses that did not match; and (iv) German companies.

Figure 119: Number of employees



Source: Request for information.

Figure 120: Total sales



Source: Request for information.

As be seen from the charts above, the vast majority are independent companies with fewer than 50 employees. Company structure and total turnover are relevant insofar as certain imbalances in the balance of power between suppliers and distributors must exist for the FWBG to apply (see previous section on the FWBG). As the sector study focuses on the last two stages of the value chain, the following sections focus on the food retail sector, in particular the **top 4**, namely REWE, Spar, Hofer and Lidl.

For the evaluation in the following sections, a breakdown was made according to the common SME classification[229] or in accordance with the balance of power levels pursuant to Section 5a (2) FWBG on the basis of global turnover. Only Austrian companies are included in the six groups.

[229] https://www.bmaw.gv.at/Services/Zahlen-Daten-Fakten/KMU-in-%C3%96sterreich.html

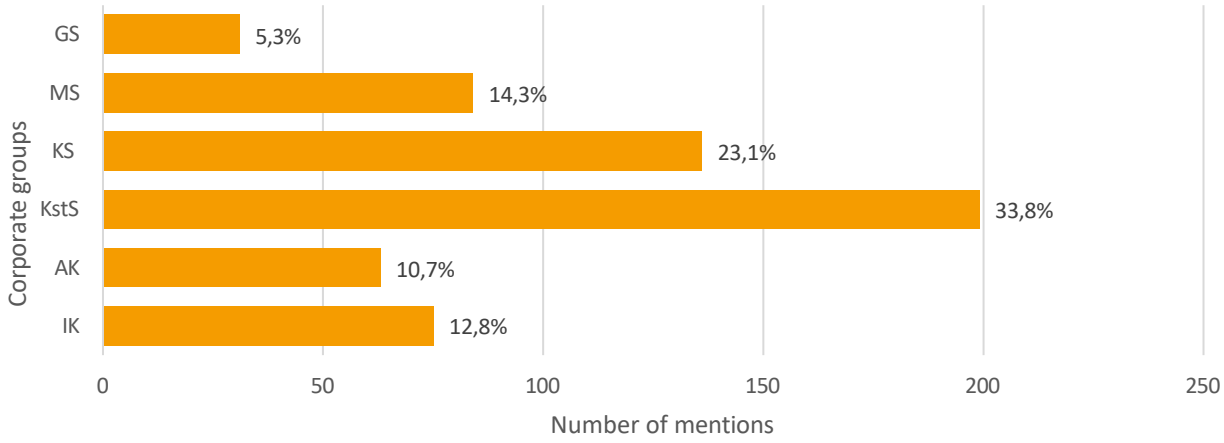
companies that are either independent or part of a group. These six groups were defined as follows:

Table 17: Breakdown of the companies surveyed on the FWBG into groups

Abbreviation	Description	Global sales [EUR]
GS	Large companies (self-employed)	>50 million
MS	Medium-sized companies (self-employed)	>10 million to 50 million
KS	Small business (self-employed)	>2 million to 10 million
KstS	Microenterprise (self-employed)	Up to 2 million
AK	Affiliated companies of a foreign group	No turnover limits
IK	Affiliated companies of a domestic group	No turnover limits

Source: Request for information.

Figure 121: Corporate groups

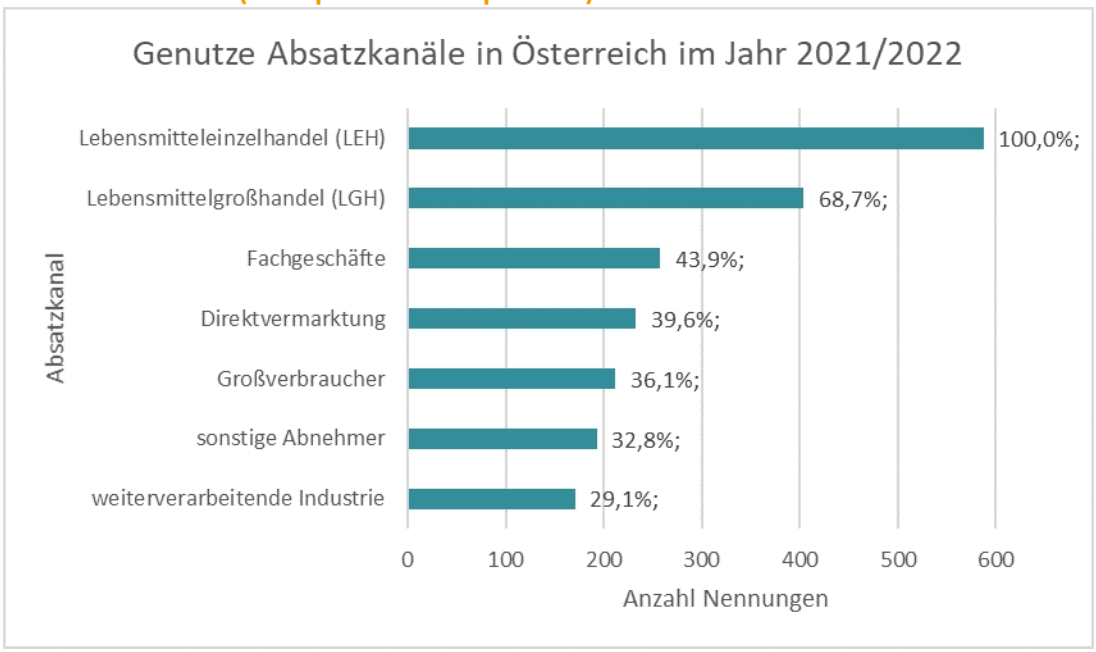


Source: Request for information.

10.2.2. General findings

In order better classify the information provided by suppliers on their exposure to unfair trading practices, they were also asked to answer general questions about their sales channels and relationships with their customers. The next five charts again show the reference factor n=588.

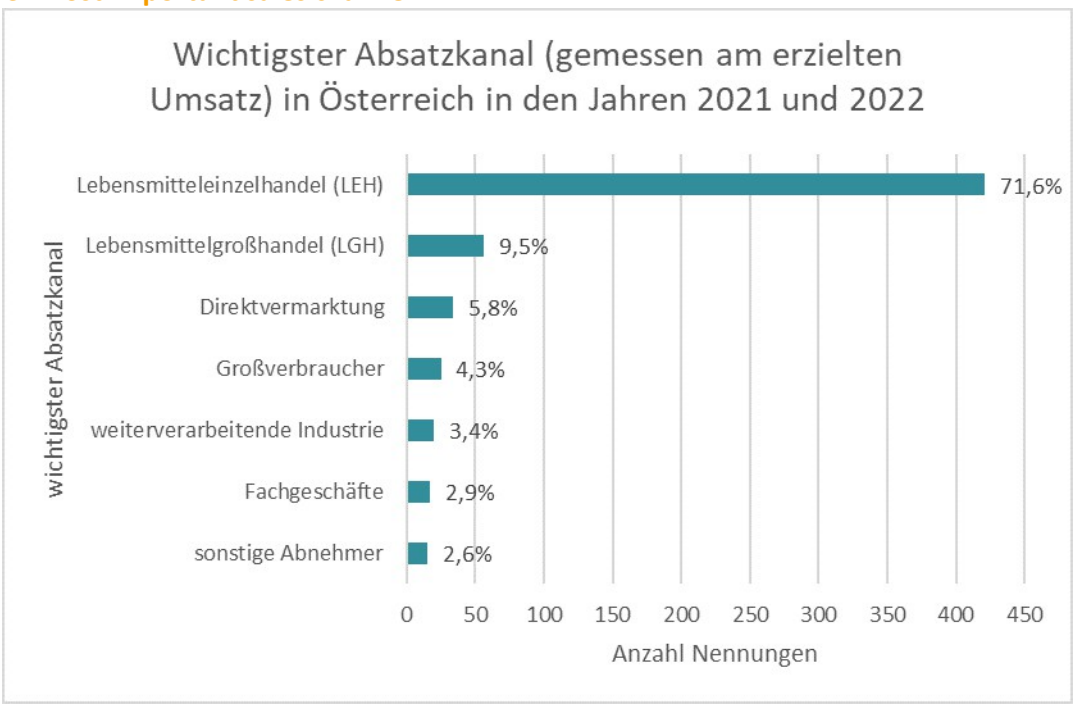
Figure 122: Sales channels (multiple selection possible)



Source: Request for information.

Multiple answers were possible to this question. Reminder: For the purposes of the evaluation, companies that stated that they do not supply food retailers were excluded. This means that the food retail sales channel comprises 100% of respondents and represents the reference value for the assessment. It is worth noting the large gap between the LEH and LGH (68.7%) and specialist stores (43.9%). In other words, Austrian suppliers presumably also supply food retailers in many cases, in addition to possible other customers.

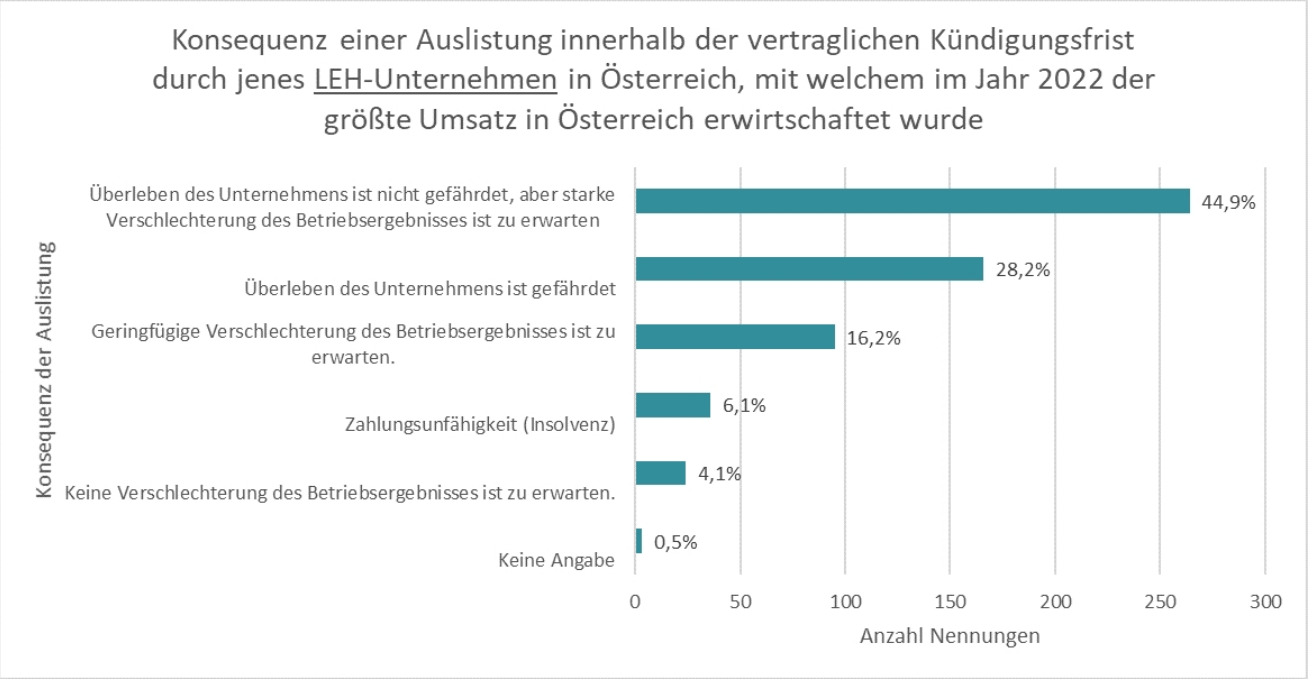
Figure 123: Most important sales channel



Source: Request for information.

The second chart on sales channels significantly reinforces the impression just gained. More than **70% of the companies surveyed stated that food retail is the most important sales channel of all.** The LGH, as the second most important sales channel, lags far behind with less than 10%. This chart therefore clearly differentiates the presentation in the previous chart to the effect that, although LGH may often be supplied in addition to LEH, the importance of LGH does not come close to that of LEH.

Figure 124: Dependence on customers



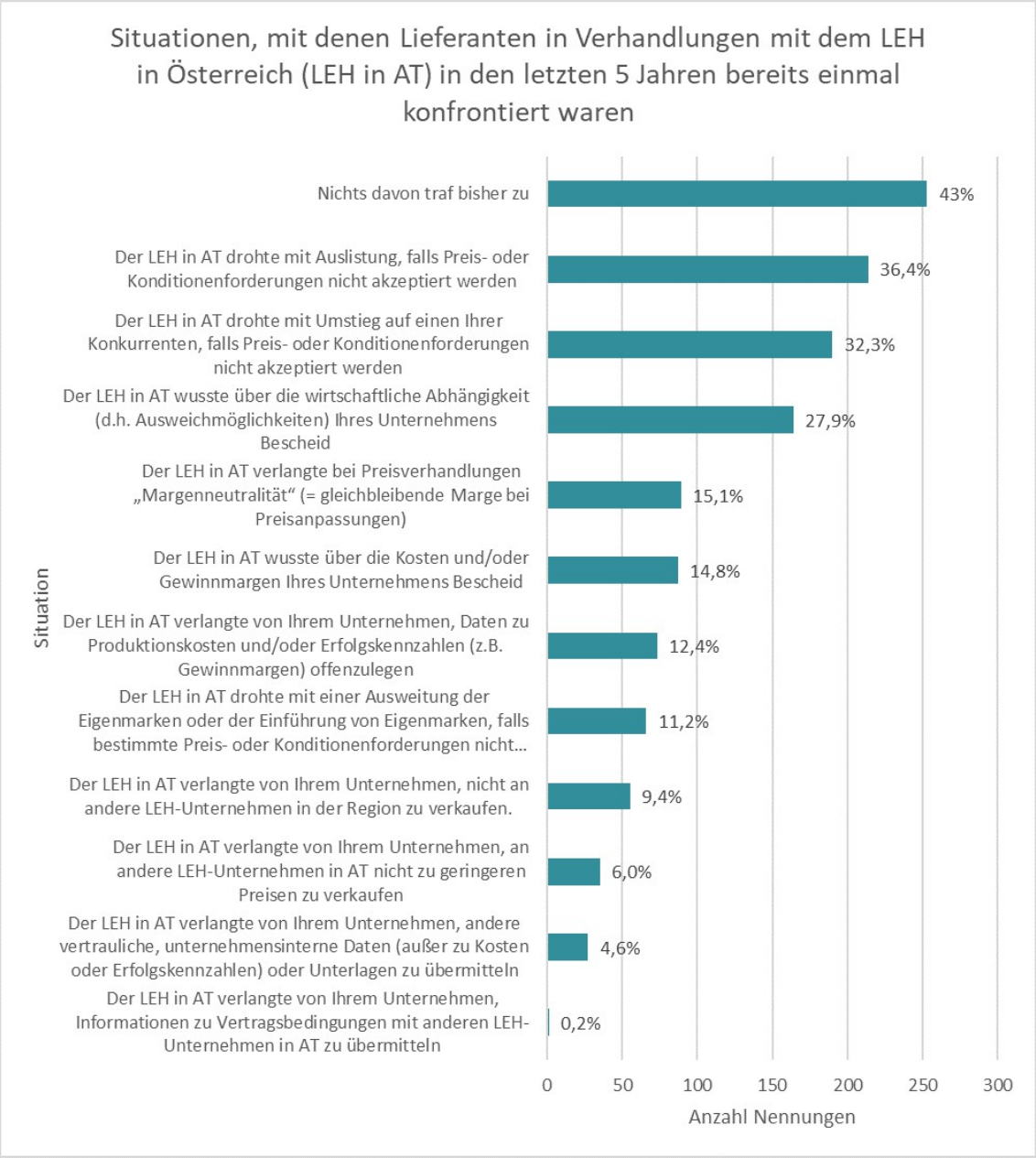
Source: Request for information.

When asked about the effects of being delisted by the most important customers from the food retail sector, the following picture emerged: around a third stated that this would lead to existential problems - insolvency or a threat to survival. A further 45% stated that there would be a sharp deterioration in operating results. Only around a fifth (20.3%) would be able to cope with the loss of their most important customers with little or no loss of earnings. A delisting would therefore have a noticeably negative impact on four-fifths of all suppliers.

The information on the importance of the individual sales channels and the effects of delisting by the most important customer from the food retail sector indicate that a large proportion of Austrian suppliers are dependent on their food retail sales partner, which could give the latter **relative market power within the meaning of Section 4a KartG 2005.**

The following two charts situations that can arise from such an imbalance of power.

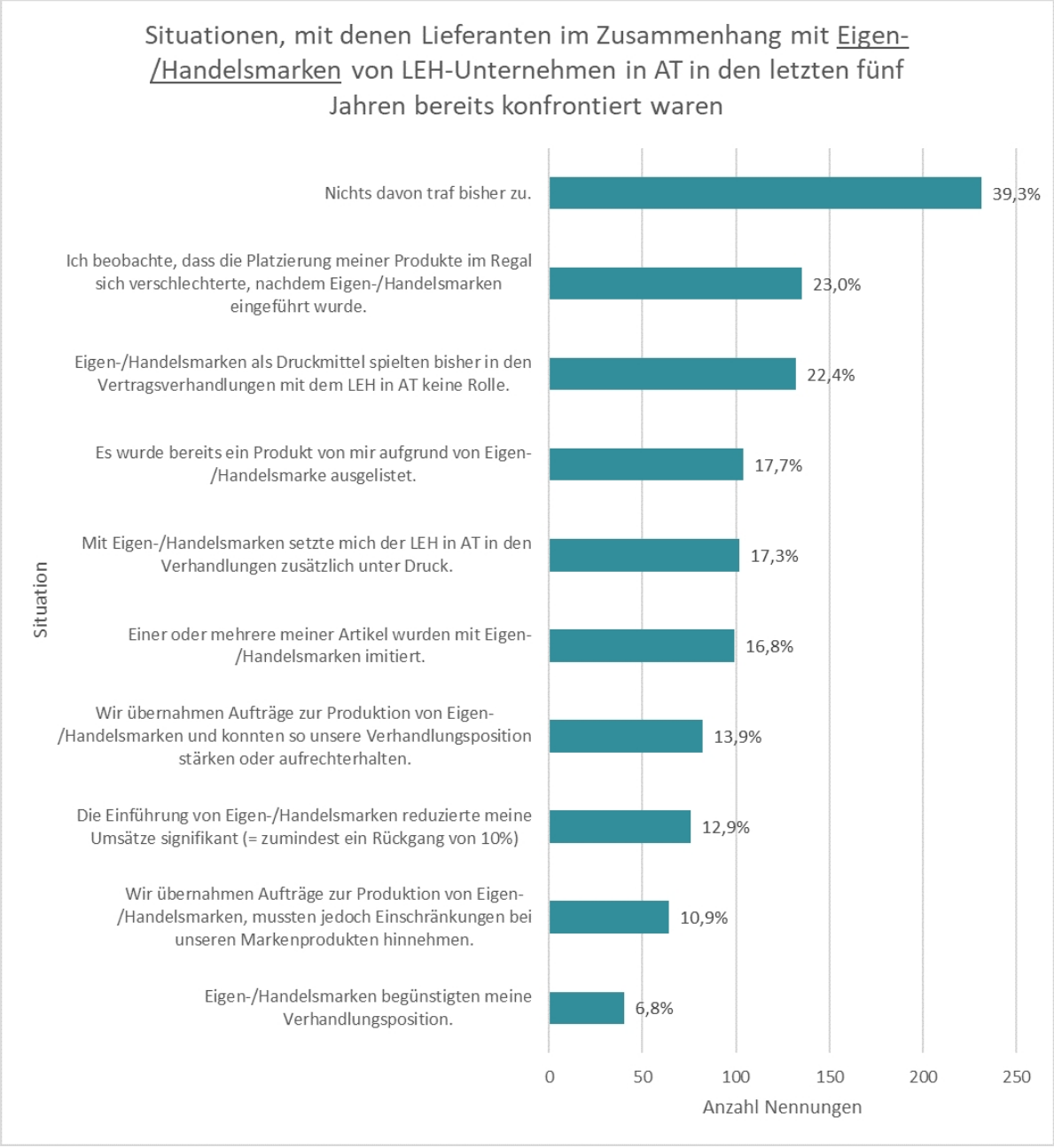
Figure 125: Negotiation situations (multiple selection possible)



Source: Request for information.

According to their own statements, **around a third** of all suppliers have already been confronted with (i) the threat of discontinuation or (ii) switching to a competitor in the last five years if price or condition demands are not accepted. Around one in nine suppliers have been threatened with (iii) the introduction or expansion of private labels for the same purpose. Every seventh to eighth supplier found themselves in the situation of (iv) having to disclose their production costs or (v) the food retailer already knew them.

Figure 126: Situations in connection with own brands/trademarks Own brands/trademarks (multiple selection possible)



Source: Request for information.

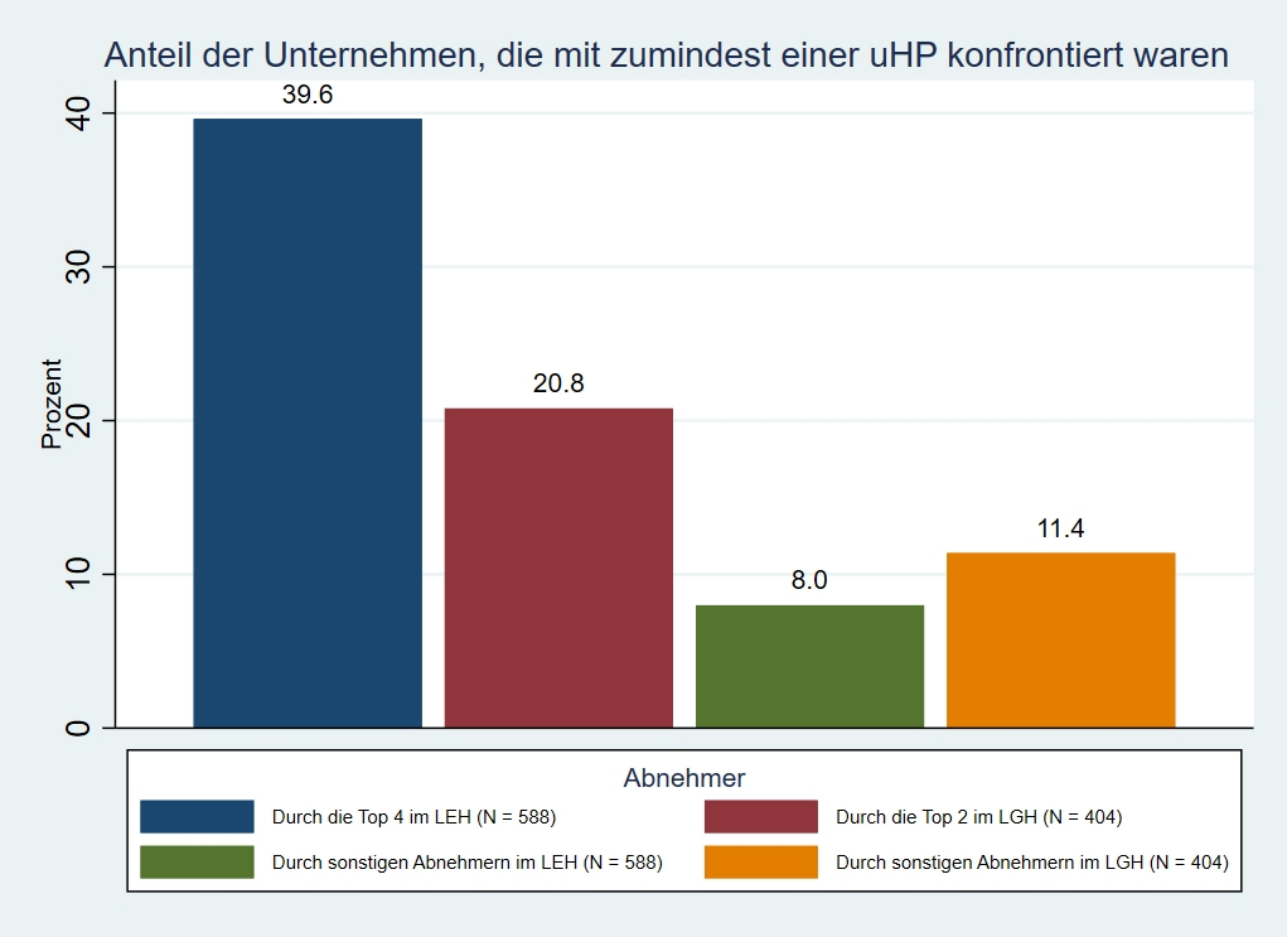
Almost one in four suppliers stated that their **products** were **less well placed on the shelves after the introduction of private labels.** About the same number stated that own/trade brands not play a role as a means of exerting pressure in negotiations with food retailers. Every sixth supplier was confronted with (i) delisting, (ii) product imitation and/or (iii) the threat of private labels as a means of exerting pressure. Overall, negatively connoted mentions clearly outweigh the positive and neutral mentions.

10.2.3. Information from suppliers on "unfair trading practices" in accordance with Annex I

In this section, the perceptions and assessments of the suppliers with regard to unfair trading practices ("***uHP***") according to Annex I, the so-called "**black list**" of the FWBG

which contains the trade practices prohibited under all circumstances. As a rule, the questions related to the top 4 food retailers, the top 2 food retailers (i.e. Transgourmet and Metro) and other food retailers and food retailers in order to be able to make comparisons.

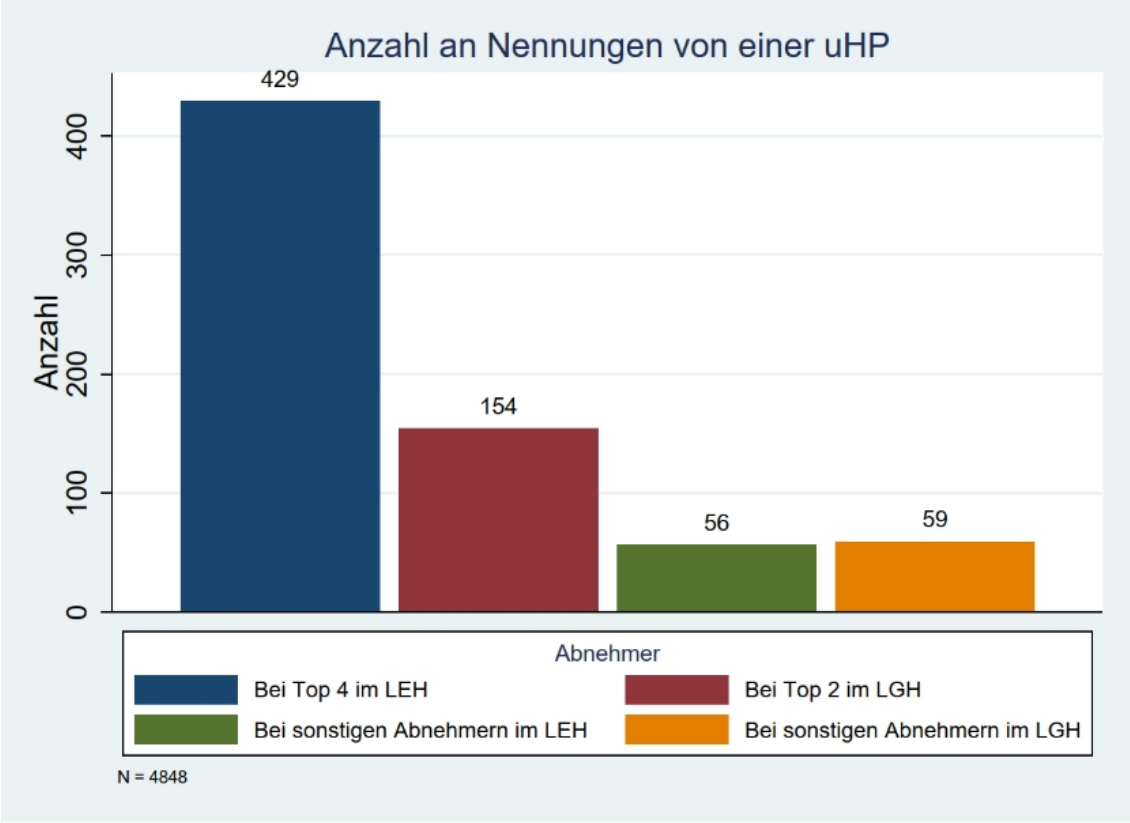
Figure 127: Distribution of trade practices according to Annex I



Source: Request for information.

Around **four out of ten suppliers** who supply at least one of the top 4 food retailers stated that they had been confronted with at least one Annex I IP. Among the suppliers of the top 2 food retailersonly two out of ten and thus only half of the suppliers affected were affected. The gap between the top companies in food retail and LGH and other customers is also striking.

Figure 128: Trade practices according to Annex I in the "Subsample LEH+LGH"



Source: Request for information.

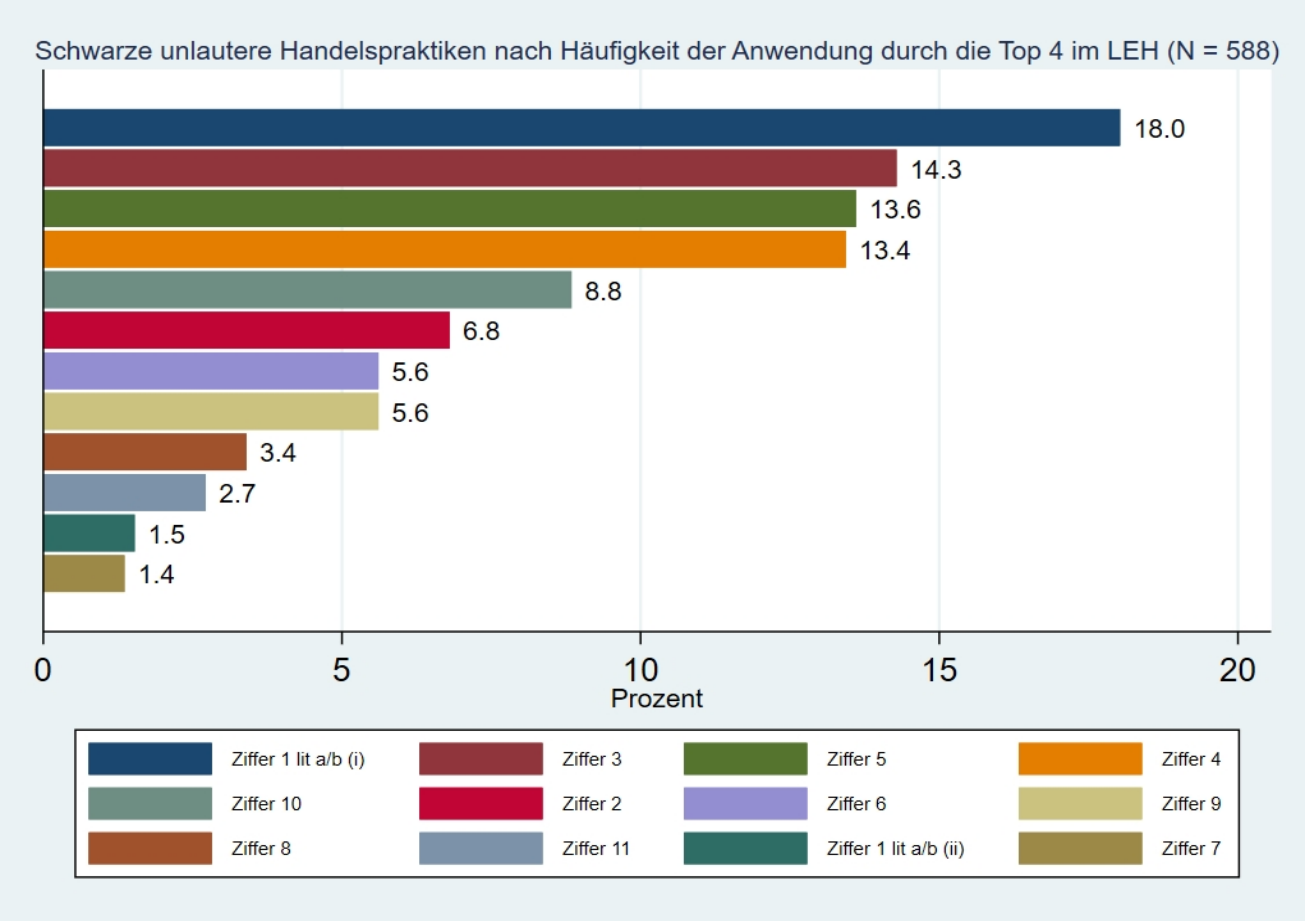
This chart reinforces the impression of the previous one. If we look only at those 404 (out of 588) companies that supply both food retailers and food service retailers, there were around **2.7 times more mentions** of uHP by the top 4 food retailers than by the top 2 food service retailers.[230] These suppliers stated that more different types of uHP were applied to them by a customer in the top 4 food retailers than by a customer in the top 2 food service retailers.[231]

In the following charts on the blacklist of uHPs, the focus is predominantly on the top 4 food retailers, as - as explained in section 2.3 - the industry survey only focuses on food retailers at the last stage of the value chain and the top 4 food retailers clearly stand out from the LGH according to the findings presented above.

[230] The reference value n=4848 in this chart the maximum possible number of mentions. In other words, the 404 companies surveyed were each able to specify a maximum of 12 uHP (n = 404*12 = 4848).

[231]) This cannot be explained by the fact that there could *theoretically* be twice as many points of contact - and thus opportunities for infringement - among the top 4 food retailers compared to the top 2 food retailers. Rather, a comparison of the supplier lists of the top 4 food retailers showed that the majority of all suppliers (around 80%) only supply one of the top 4 food retailers and that the group that supplies more than two is less than 10%. An exact comparison was not possible due to the lack of a clear identifier (e.g. the company register number), which is why approximations were made by comparing the (i) company name,
(ii) e-mail address or (iii) address.

Figure 129: Trade practices according to Annex I by the top 4 food retailers

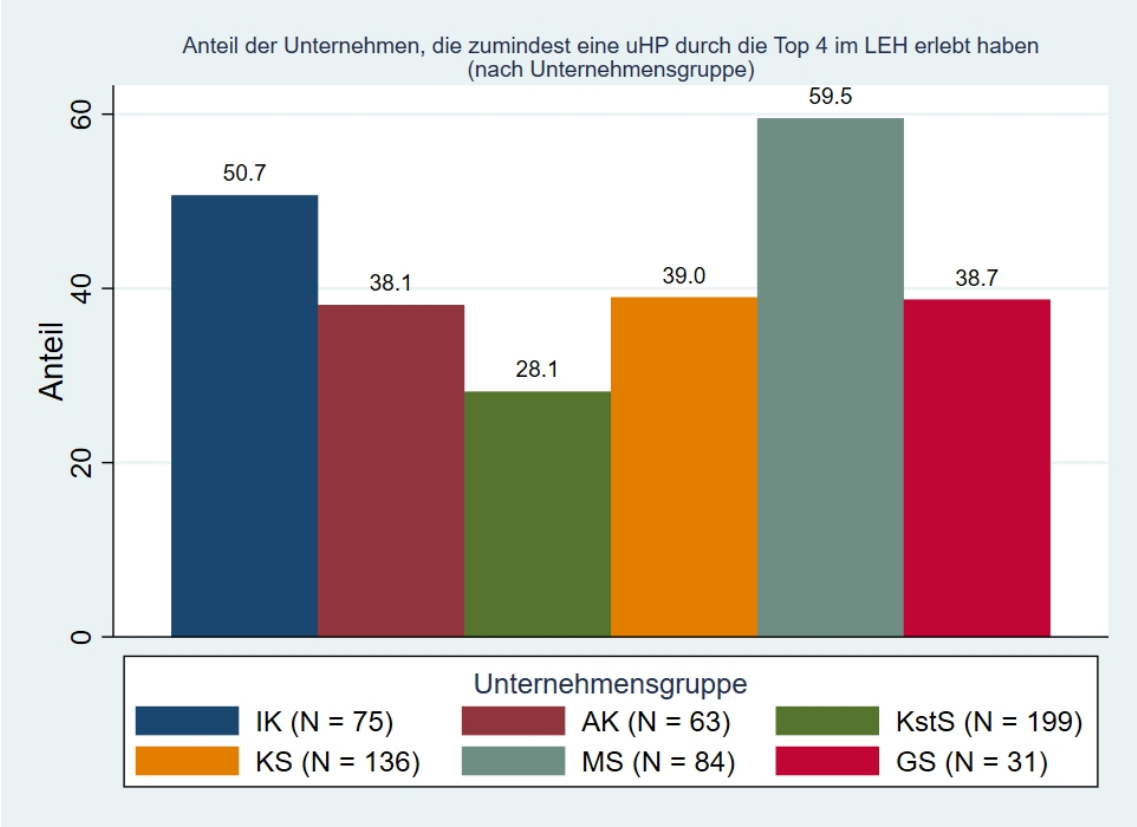


Source: Request for information.

The chart above shows which of the blacklisted uHPs the top 4 food retailers are said to have used most frequently according to the suppliers:

- At 18%, point 1 lit. a/b (i) of Annex I was mentioned most frequently, i.e. **payment later than 30 days for perishable agricultural and food products**.
- This is followed - with around 14% each - by breaches of clause 3 (**unilateral amendment of supply agreements**), clause 4 (**request for payment without consideration**) and clause 5 (**payment for loss of quality not caused by the supplier**).
- With occurrences of more than 5%, this is followed by item 10 (**discrimination against other customers**), item 2 (**short-term order cancellation**), item 6 (**refusal of a written supply contract**) and item 9 (**reimbursement of costs for complaint handling**).

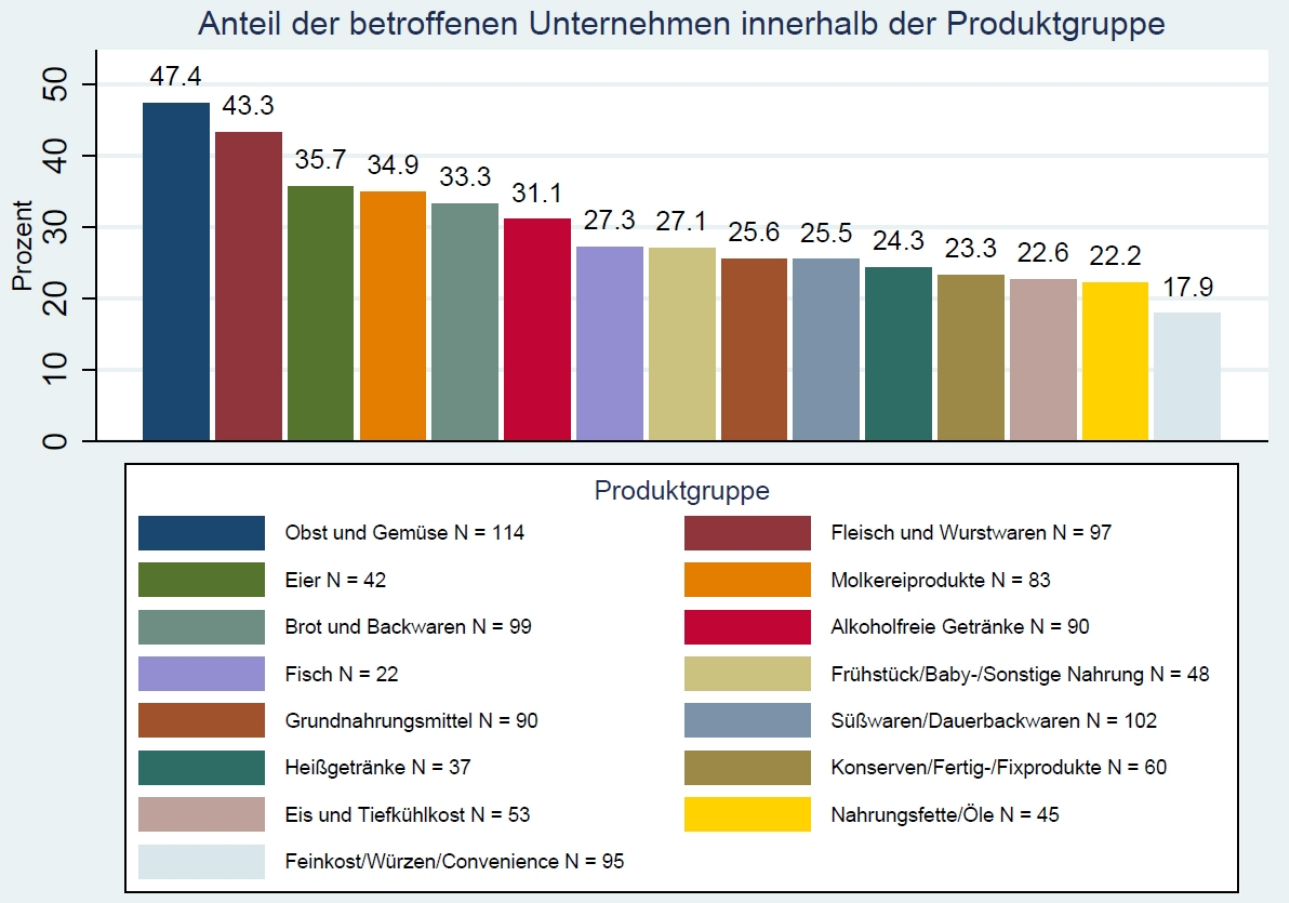
Figure 130: Affectedness by company group



Source: Request for information.

The chart shows the distribution of the uHP applied by the top 4 food retailers across the company groups defined above. At six out of ten, the highest number of companies affected are medium-sized independent companies. Larger or smaller companies, with around 30-40% of affected companies, were less likely to have been the target of uHP. At around 50%, associated companies of domestic groups still stand out.

Figure 131: Affectedness by product group



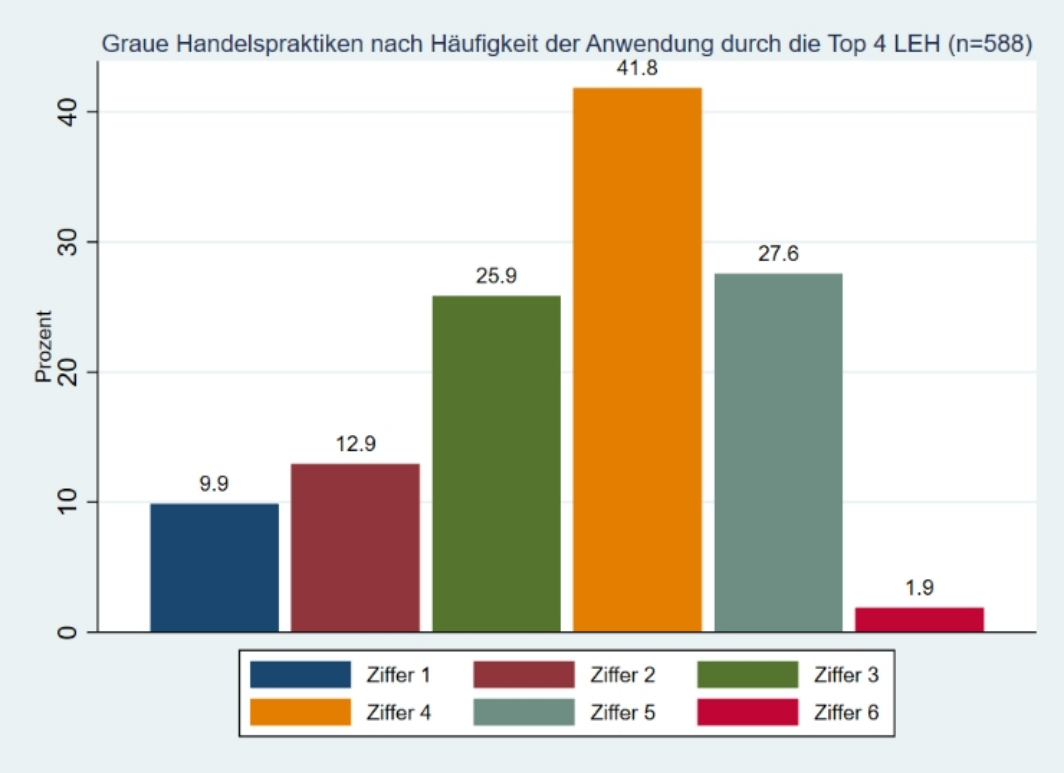
Source: Request for information.

This chart illustrates that there are also considerable differences between the various product groups in terms of the reported exposure to uHPs in the food sector as a whole (i.e. by the food retail sector and the food service sector). Accordingly, more than one in three suppliers of "fruit and vegetables" are affected by uHPs, closely followed by "meat and sausage products", "eggs", "dairy products" and "bread and bakery products". On the other hand, suppliers of "delicatessen/spices/convenience" and "Food fats/oils" were much less likely to the target of uHP.

10.2.4. Information from suppliers on "unfair trading practices" in accordance with Annex II

In the following, the so-called **gray unfair trading practices** of Annex II are highlighted, which are only prohibited if there is no explicit agreement between the trader and the respective supplier.

Figure 132: Distribution of trade practices according to Annex II

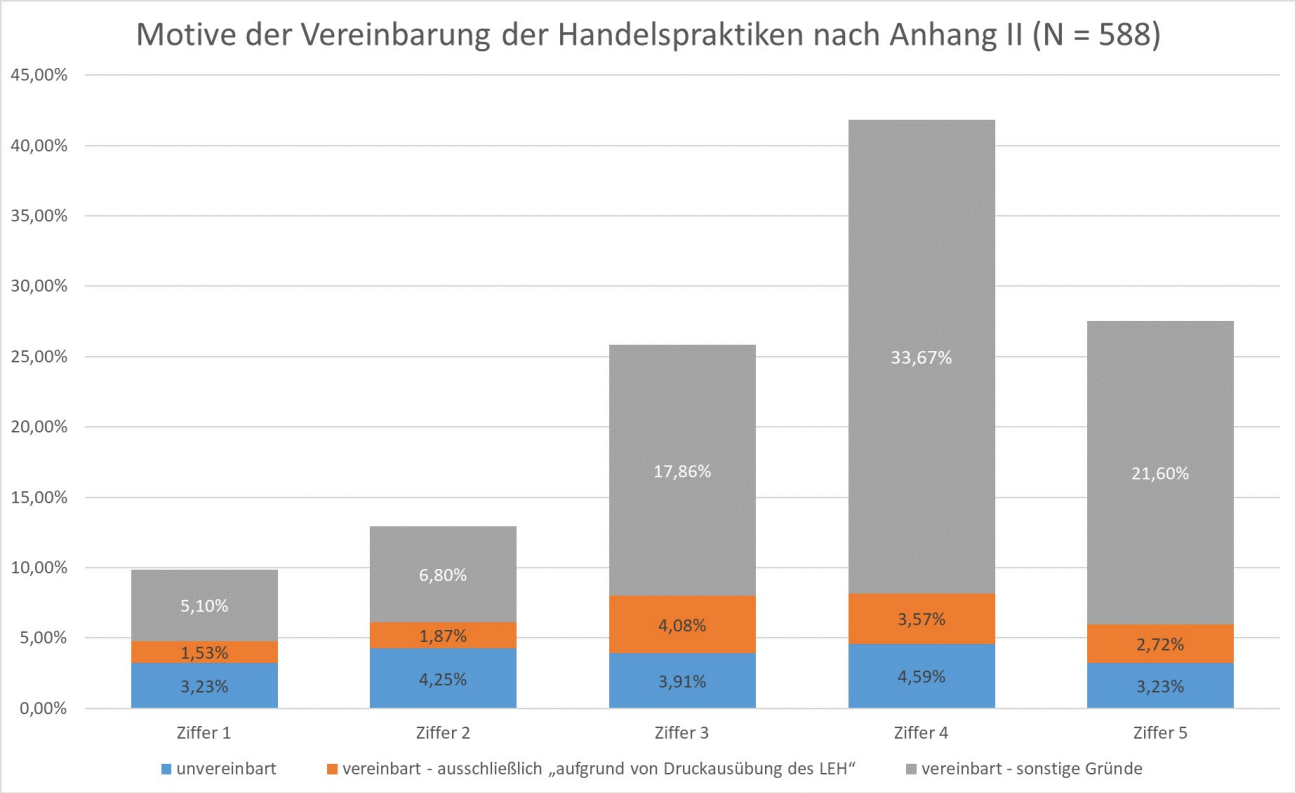


Source: Request for information.

The chart above provides a general overview of the prevalence of Annex II practices in business relationships with the top 4 food retailers, without, however, making any statement about their permissibility:

- It can be seen that point 4 of the gray list is used most frequently at around 42%. This relates to **payments for advertising measures for agricultural and food products**.
- In second place with around 28% is paragraph 5, which provides for **payments for the marketing of such products**.
- In third place with around 26% is item 3, i.e. **payments for the cost of price reductions as part of sales promotions without providing information about the period of the promotion and the expected quantity of products ordered at the lower price before it begins**.

Figure 133: Motives for the agreement and proportion of unauthorized use



Source: Request for information.

The above chart shows in the blue part of the bar those cases in which there are no agreements between the top 4 food retailers and the suppliers for the practices used and which would therefore be prohibited. This means that the frequency of potentially prohibited practices according to Annex II is in the range of around 3-5%. Item 6, i.e. **payments for personnel costs incurred in equipping salesrooms**, falls significantly with less than 1% of incompatible cases and has therefore been removed from the chart for better readability.

In order to a comprehensive picture, the reasons why a supplier:agrees to a practice listed in Annex II were also asked, with multiple answers possible. The possible answers to the question about the reasons for agreeing to these practices were as follows:
(i) for their own benefit, (ii) for the benefit of both parties, (iii) due to pressure exerted by the food retailer,
(iv) due to the fear of serious economic consequences and (v) without reservations.[232] This also made it possible to filter out those cases in which the agreement did not correspond to the actual will of the supplier. For the purpose of a conservative analysis, the BWB has only shown separately those cases that came about exclusively "due to pressure exerted by the food retailer". In the chart, these are represented by the orange parts of the bars. If we now consider the cases in which no agreement exists (blue bars) together with those in which

(232) The further answer option "due to pressure exerted by the LGH" is not relevant in this context.

it was only due to pressure (orange bars), the following results in particular appear critical:

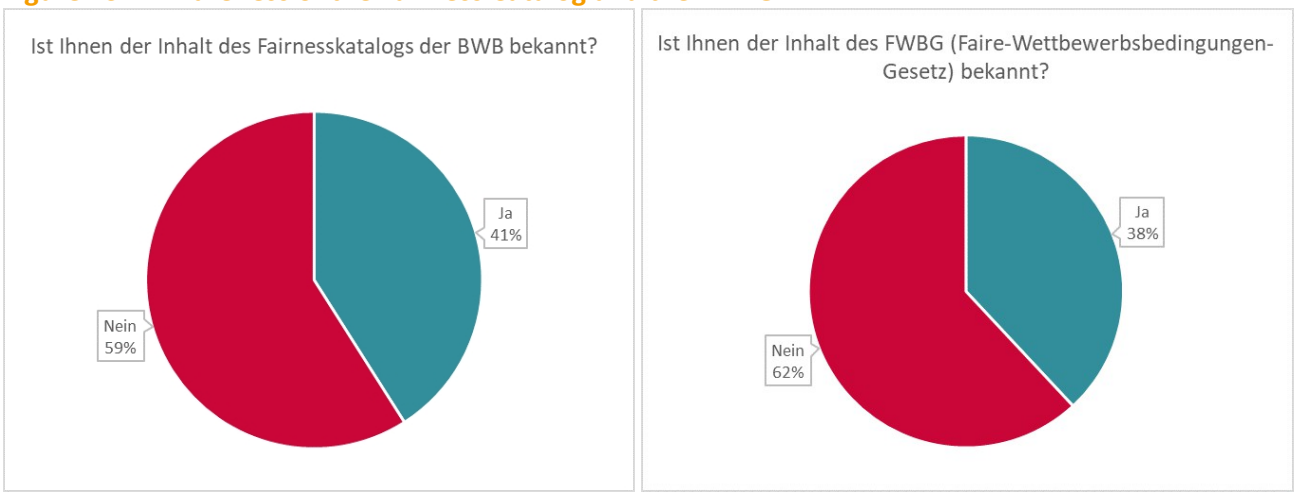
- Item 4 of Annex II, i.e. **payment claims for advertising measures for agricultural and food products**, now almost reaches the value of the fifth most frequent black uHP at 8.2% (see point 9.2.3.).
- Item 5, **payment claims for the marketing of agricultural and food products**, falls short of this figure by around 6%, but is therefore close to item 4.
- Item 3, i.e. **payment claims for the costs of price reductions in the context of sales promotions** without providing information about the period of the promotion and the expected quantity of products ordered at the lower price before it begins, achieves a similarly high value of around 8%.

A less conservative approach, i.e. including cases in which the supplier (also) agreed to an agreement due to fears of serious economic consequences, results in values of up to almost 13%.

10.2.5. Awareness and opinion of suppliers with regard to the FWBG

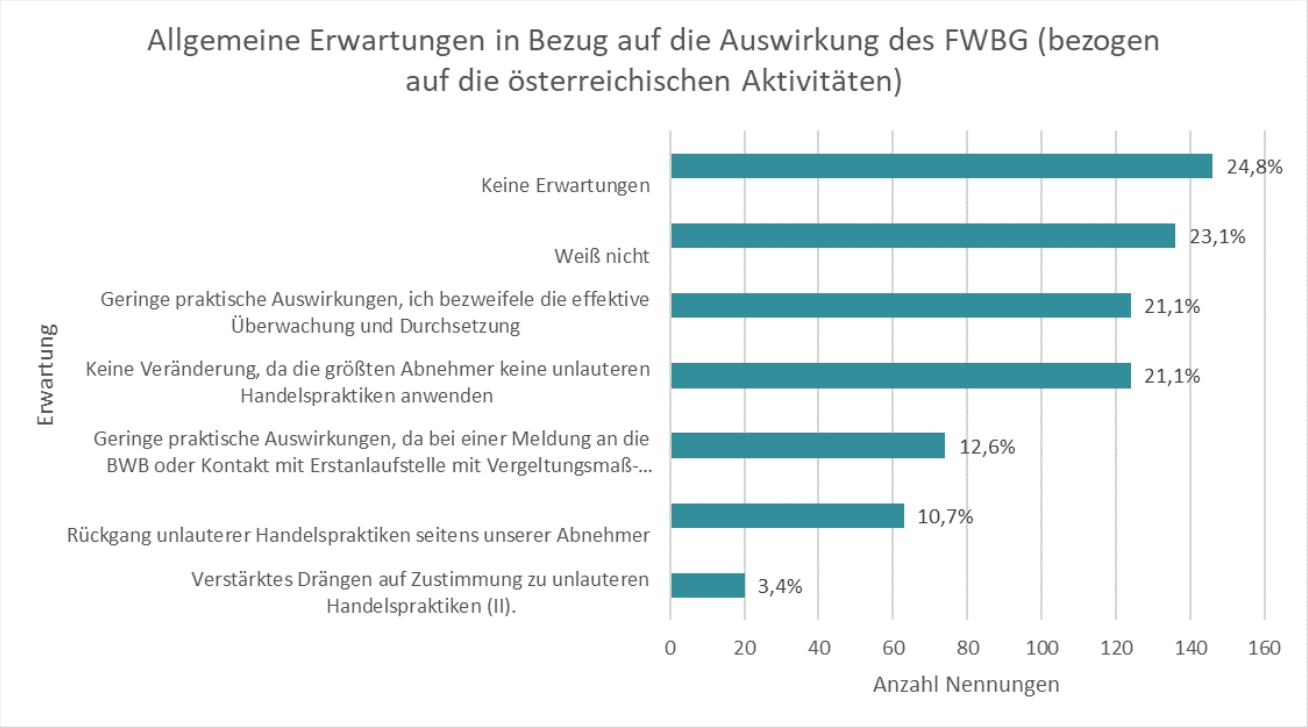
Three additional questions were asked to shed light on knowledge and opinions on uHP. The reference value for the charts is again n=588.

Figure 134: Awareness of the Fairness Catalog and the FWBG



Source: Request for information.

Figure 135: Expectations regarding the FWBG



Source: Request for information.

Around four out of ten suppliers are aware of the BWB's Fairness Catalog or the FWBG. The majority of all companies stated that they expected little or no impact from the FWBG and its enforcement. In contrast, around 11% expect a decrease in uHP.

10.3. Request for information to the top 4 LEH

10.3.1. Introductory remarks

In order to obtain as balanced a picture as possible on the topic of unfair trading practices, the four food retail companies that together cover over 90% of the Austrian market (SPAR Österreichische Warenhandels-AG, REWE Group Österreich, HOFER KG, LIDL Österreich GmbH) were asked about their perceptions in this regard as part of a request for information. These mainly concerned compliance measures, complaints in connection with the FWBG and the handling of issues that may be relevant in connection with the FWBG.

Three companies submitted detailed responses, whereas one only provided a cursory response to three aspects of the request for information, stating that the BWB does not have the instrument of sector inquiries at its disposal with regard to the FWBG because its enforcement is not mentioned in Section 1 WettbG. One of the companies that provided complete answers also expressed concerns in this regard. The BWB does not share this legal opinion. In particular, there is no restriction to the effect that, in the context of an industry investigation, it can only investigate facts that directly constitute a (potential) infringement of the KartG or the relevant provisions of the KartG.

European legislation. Distortions of competition can also from other types of conduct, whereby existing legal provisions, such as the FWBG in particular, are indicative. The BWB refrained from ordering the provision of information by means of an official decision because it could not be assumed that the proceedings would be legally concluded before the report was published and the three extensive responses received are in any case sufficiently informative.

In view of the confidentiality of the responses from the three trading companies, they are presented in a highly condensed and anonymized form so that no conclusions can be drawn about an individual company. The responses are summarized in particular for those eHPs in Annex I that are used most frequently according to the suppliers.

10.3.2. Information from the three food retail companies on unfair trading practices

General statements on the FWBG

All three companies stated that they had conducted training courses and/or distributed information documents on the FCA to all or higher-ranking employees. One of the companies also provided very detailed documents and stated that the FWBG was a topic in its annual antitrust law training sessions. All three companies also stated that they implement effective compliance. Only one company named a central person responsible for the FWBG, including contact details. For the other two, the FWBG is included as part of compliance with the applicable regulations and laws.

The companies stated that they had not been confronted with any specific allegations of violations by suppliers since the FWBG came into force. One company mentioned an investigation that was pending with the BWB but was discontinued due to the lack of a violation.

Information on late payment for perishable agricultural and food products [Z 1 lit a/b (i) Annex I of the FWBG]

The three companies stated values that were only a few days below or above the maximum duration of 30 days regulated in the FWBG and that they had not received any complaints from suppliers in connection with the FWBG to date.

All three companies emphasized that there were no "late" payments, but only legal or factual reasons for a justified later payment, which in this sense would then have to be made at a later date.
"timely" payment. The reasons given included: incorrect or improperly issued invoices, differences in amounts due to changes in purchase prices, discrepancies between quantities ordered and quantities delivered or inaccurate bank details.

Information on unilateral changes to supply agreements (Z 3 Annex I of the FWBG)

All three companies answered the question of unilateral changes in the negative or stated that supply contracts only provide for mutually agreed changes. One company mentioned that in the event of legal changes, a unilateral adjustment to the new legal situation would be conceivable at best.

Information on requests for payment without consideration (Z 4 Annex I of the FWBG)

In particular, cash discounts, listing fees, volume discounts and advertising cost subsidies were named as monetary benefits from suppliers and factual justifications were provided in each case. All three companies stated that such monetary benefits are agreed in advance and individually with the suppliers, are voluntary and have no influence on the commencement or continuation of the business relationship.

Information on requests for payment due to quality defects [Z 5 Annex I of the FWBG].

Two companies emphasized that financial compensation could only be agreed with suppliers in the event of culpably caused quality reductions. The third company stated that, depending on the individual case, an opinion would be obtained from the supplier and they would be asked to take measures to remedy the situation.

Other information on Annex I of the FWBG

All three companies stated that they generally conclude written supply agreements and do not refuse to confirm the terms of the contract in writing.

Likewise, there is no unequal treatment or discrimination against individual suppliers for equivalent services.

10.4. Assessment of the requests for information and summary

The evaluation of the survey of food suppliers in the food retail and food service sector that violations of the FWBG occur on the Austrian market to a not inconsiderable extent.

The top 4 food retailers stand out in the information provided by suppliers compared to customers of the LGH, as twice as many suppliers (around 40%) stated that they were affected by uHP and, moreover, a disproportionately high number of different Annex I numbers were reported by each affected supplier in the top 4 food retailers. **Medium-sized Austrian companies and subsidiaries of domestic groups are** particularly **affected**, with every second company reporting one or more IPs by the top 4 retailers. The four most common IPs in Annex I were points 1(a/b)(i), 3, 4 and 5. These were mentioned by 13% to 18% of the suppliers surveyed, i.e. around one in seven.

A more differentiated picture emerges for gray practices: incompatible and therefore prohibited IPs in accordance with Annex II significantly less common than black IPs, accounting for only around 3-5% (around one in thirty suppliers). However, if one takes into account those agreements that came about solely as a result of pressure exerted by the food retail sector, this picture shifts and the figures rise to 6-8%. If those agreements that came about due to fears of serious economic consequences are included, the peak value is almost 13%.

These values must be compared with the information provided by food retailers, according to which they have not yet received any complaints from suppliers with regard to the FWBG. Furthermore, with regard to the facts of Annex I - such as late payment - aspects were put forward that could rule out a violation.

In any case, the **completely contradictory information provided by suppliers and food retailers** on some practices in Annex I is remarkable. While the food retailers had no perceptions of the following points, the suppliers stated the following:

- 14.3% were subject to unilateral contract amendments (item 3 Annex I).
- 13.6% received a request for payment without consideration (point 4 Annex I)
- 13.4% received a request for payment for a loss of quality that occurred at the food retailer through no fault of their own (point 5 Annex I)
- 5.6% stated that they had not received a written contract despite requesting one (Figure 6 Annex I).

No explanation for the contradictory information could be found, particularly with regard to these points.

At this point, should be recalled that a sector inquiry is a general investigation of an economic sector if the circumstances suggest that competition in this sector is restricted or distorted. It must therefore be from investigations into specific facts. The aim of the part of this investigation relating to uHP was therefore not to prove specific violations of the FWBG. Rather, the aim was determine whether the agricultural and food supply chain - in particular the relationship between food retailers and their suppliers - actually contains significant imbalances in terms of negotiating power that are highly likely to result in unfair trading practices. It should also be determined whether potentially relevant practices are perceived to a relevant extent, so that adverse effects on competition can be assumed.

The results presented above in this section demonstrate the existence of this bargaining power and are also an indicator of the prevalence of relevant uHP. Nevertheless

It should be emphasized once again that this does not a statement on actual violations of the FWBG. The following aspects are particularly relevant in this context:

- The information provided by suppliers regarding their dependence on their customers in food retail.
- The ability of food retailers to exert pressure to obtain suppliers' consent to practices in accordance with Annex II to the FWBG.
- The dissemination of any practices relevant under Annex I.

The fact that the Fairness Office 21 substantiated complaints in this regard in 2022 also indicates a relevant spread of unfair trading practices. The much-cited "fear factor", which has also prevented these complaints from being forwarded to the BWB, can be seen as a central problem in uncovering and combating them. The BWB itself also encounters this phenomenon in the course of its investigations, which in connection with Section 2 of the FWBG have so far been initiated exclusively ex officio and not on the basis of supplier complaints. A comparison of the number of complaints received by the Fairness Office and the information on the prevalence of unfair trading practices in the responses to the BWB's request for information suggests a high number of unreported cases of such practices in Austria. This is also likely to apply to other EU Member States, particularly Germany in terms of market structure.

10.5. Recommendations for fair supply relationships and further action by BWB

10.5.1. Market studies based on the FWBG

Since suppliers affected by unfair trading practices refrain from filing complaints with the BWB for fear of retaliation (e.g. delisting), the official initiation of investigation proceedings will be unavoidable in the future. As the exchange with other enforcement authorities in Europe has also shown, the main indications for the initiation of proceedings often result from market investigations.

As already mentioned, the BWB is of the legal opinion that, in the context of a sector inquiry pursuant to Section 2 para. 1 no. 3 WettbG, it can investigate not only matters that are directly related to the KartG or the relevant European legislation, but also those that concern other relevant provisions, in particular those of the FWBG. As this report shows, two major market participants in the food retail sector questioning this. In order to ensure efficient enforcement, the BWB is therefore a clarification in the FWBG, according to which it has the power to initiate targeted market investigations solely on the basis of the presumption of the use of unfair trading practices.

10.5.2. Legal certainty for suppliers

In order to increase legal certainty for suppliers, the BWB proposes that the written form be made mandatory for all contracts within the scope of application of Section 2 of the FWBG and that it no longer be made dependent on the supplier's request.

Alternatively, at least for Annex II practices, the written form could be provided as an additional requirement for their admissibility.

10.5.3. Counteracting the pressure to agree to Annex II practices

The practices in Annex II are only prohibited if they have not previously been clearly and unambiguously agreed in the supply agreement or in a subsequent agreement between the supplier and the buyer. The written form requirement proposed above is intended to contribute to this clarity and unambiguity. However, as has been shown, food retailers have the opportunity to exert pressure to enforce suppliers' consent to these practices. In order to address this problem, the FCA proposes that practices for which the buyer has exerted objectively unjustified pressure should be treated in the same way as Annex I practices.

10.5.4. Focus on BWB enforcement

As the competent enforcement authority, the BWB is focusing even more strongly on combating unfair trading practices. In doing so, it will also take into account the findings of this sector inquiry. The BWB will report on its activities in this area on an ad hoc basis. Proceedings are currently pending at BWB against a company in the food retail sector.

which is suspected of having demanded payments from its suppliers that are not related to the sale of agricultural and food products. In additionan investigation was previously conducted against a retailer in the top 4 food retailers, which was discontinued due to a lack of evidence. Another pending investigation concerns a different stage of the value chain.

11. Overview table BWB shopping cart

Table 18: BWB shopping cart detailed presentation (1/6)

Goods basket	Product group	Description	Examples
Non-alcoholic drinks	Carbonated soft drinks	Alcohol-free lemonades enriched with carbon dioxide	**Ex:** cola drinks, fruity/flavored lemonade **excl.** sparkling fruit juices, energy drinks or isotonic/sports drinks
	Fruit juices and nectars, sparkling drinks with fruit juice content (≥ 25%), smoothies	Unchilled and chilled ready-to-drink fruit juices, nectars, fruit drinks, smoothies	**incl.** fruit juices mixed with water (still/sparkling) **excl**. vegetable juices, lemon juice, fruit juice concentrates, baby fruit juices/drinks
	Mineral, table and soda water as well as (slightly) flavored water ("near water")	Mineral, table or soda water (without and with carbonic acid);	**Example:** Active O2, baby water, "near water" **incl.** water enriched with oxygen
	Still drinks and soft drinks with a low fruit juice content (< 25%)	Still lemonades/drinks with less than 25% fruit juice content	**E.g.:** cherry lemonades, Dreh&Trink, various Multivit/ACE/BCE beverages in PET bottles. Multivit/ACE/BCE drinks in PET bottles **excl.** tea-based drinks
Hot drinks	Roasted bean coffee (whole beans or ground)	Roasted coffee (whole bean or ground)	**incl.** ground coffee in a pack, in pods or capsules **excl**. coffee substitutes (coffee substitutes made from malt, grain, chicory, etc.), coffee substitute blends (with coffee beans)
	Soluble Coffee beans (instant coffee)	Instant coffee (fast-dissolving powder or granules made exclusively from roasted coffee and water)	**incl.** specialty coffees (cappuccino, latte macchiato) **excl.** instant coffee substitute (fast-dissolving powder made from coffee substitute)
Meat	Fresh meat (excl. poultry)	Fresh meat from pork, beef, veal, sheep/lamb, game, rabbit, horse, etc., including offal and bones, served and self-service;	**incl.** ready-to-cook meat (seasoned/marinated, possibly also breaded); whole, in pieces, sliced, minced, pre-formed (fresh burgers, cevapcici, etc.) **excl**. pre-cooked meat (e.g. sous-vide) for chilled ready meals
	Fresh poultry	Fresh poultry meat (chicken, turkey, goose, duck, pigeon, game birds, ostrich, etc.), including offal, served and self-service;	**incl.** ready-to-cook fresh, raw poultry (seasoned/marinated, e.g. "ready to grill", possibly also breaded); in parts (halves, quarters, breasts, legs, wings, Schnitzerln, sliced, minced, etc.) or whole **excl.** pre-cooked poultry (e.g. sous-vide) for chilled ready meals / poultry convenience foods

Table 18: BWB shopping cart detailed presentation (2/6)

Fish	Fresh fish and fresh seafood	Fresh, edible fish (saltwater and freshwater animals)	**Ex:** salmon, trout, carp **incl.** fresh, ready-to-cook/ready-to-oven, seasoned products (oven salmon in aluminum tray or trout seasoned) **excl**. seafood (e.g. shrimps, scampi and mussels or octopus, squid), smoked fish (e.g. salmon, mackerel), fish marinades, fish delicatessen in sauces, processed (smoked, pickled, marinated, in aspic, etc.) fish
Sausage	Sausage, ham and bacon (open and pre-packed from service or self-service)	Fresh sausage/sausages/ham/bacon from service or self-service, i.e. open or pre-packed	**Ex:** extra sausage, raw/cooked ham, mortadella, meat loaf, cheese sausage, aspic sausage **incl.** vegetable aspic, meat spreads **excl.** canned sausage/spread, corned beef, meat & sausage snacks, vegetarian sausage substitutes
Eggs	Eggs fresh and cooked (open and packaged)	Fresh and cooked hen's eggs, open or packaged, eggs from wild birds (e.g. quail eggs)	**incl.** dyed hen's eggs, liquid whole egg, egg white, egg yolk **excl.** vegetable egg substitute (starch-like powder)
Fruit	Fresh fruit, unprepared (open, pre-packed, incl. peel fruit)	Fresh fruit, open or pre-packed from the fruit and vegetable department	**Ex:** berries, citrus fruit, exotic fruit (incl. avocado), pome fruit, stone fruit, shell fruit, other fruit (incl. rhubarb) **incl.** shelled fruit (e.g. walnuts, peanuts in shell), mixed fruit crates **excl.** pre-cut fruit, fresh fruit salads, canned fruit/compotes, dried fruit, nut/fruit mixes ("trail mix"), snack nuts (e.g. shelled nuts, pistachios) for savory snacks
Vegetables	Fresh vegetables (open and pre-packed)	fresh vegetables, open or pre-packed from the fruit and vegetable department;	**E.g.:** (leaf) lettuce, cucumbers, peppers, tomatoes, pulses (such as beans), fresh herbs, potatoes, cabbage, other root vegetables, corn on the cob **incl.** salads, (soup) vegetables (washed, cut, pre-cooked) **excl**. canned vegetables, dried pulses
Bread/bakery/ pastry goods	Bread and pastries (open and pre-packed, incl. baked goods)	Open and pre-packed bread and pastries, breadcrumbs, bread cubes, baked bread and pastries	**E.g.:** whole and sliced bread, toast, rolls, cookies, breadcrumbs/bread cubes **incl.** finished and semi-finished (pre-baked) products (e.g. chilled herb /garlic baguettes) **excl.** sweet pastries, cakes/pies/delicate baked goods, chilled doughs/fresh doughs, tortillas, fajitas, flatbreads for rolling/filling

Table 18: BWB shopping cart detailed presentation (3/6)

Dairy products	Drinking milk (fresh/ESL/shelf stable)	Animal milk without added flavor and with different fat contents. fat content: Fresh milk, ESL milk, long-life milk	**Ex:** whole, semi-skimmed, skimmed milk **incl.** cow's milk, goat's milk and sheep's milk **excl.** mixed milk drinks (e.g. cocoa milk), sour milk (e.g. buttermilk), coffee milk/condensed milk (coffee whitener), plant-based milk alternatives
	Natural yogurt (incl. kefir and skyr)	Animal milk thickened by lactic acid bacteria and thus preserved for longer - without additives	**incl.** yogurt made from cow's, goat's and sheep's milk, kefir and skyr **excl.** plant-based yogurt alternatives
	Fruit yogurt (incl. kefir and skyr)	Animal milk thickened by lactic acid bacteria and thus preserved for longer - with additives (honey, muesli, various flavors and fruit flavors) Additives can be stirred in, layered or present in corners/lids	**incl.** yoghurt made from cow's, goat's and sheep's milk, kefir and skyr with flavor **excl**. plant-based yoghurt alternatives, milk-based desserts, sour milk with added fruit (e.g. Fru Frau)
	Hard cheese, semi-hard cheese and soft cheese	Hard cheese: Cheese with a firm to very firm cheese paste and low water content Semi-hard cheese: slightly softer than hard cheese Soft cheese: soft, smooth consistency (all forms: pieces, slices, cubes, portions, grated cheese)	**Ex:** Hard cheese: Emmental, mountain cheese, Cheddar, Grana, Parmesan Semi-hard cheese: Gouda, Edam, Tilsiter, large-hole cheese, butter cheese, raclette cheese Soft cheese: Camember, Brie, Gorgonzola, St. Albray **incl.** cheese from all types of milk (cow, sheep, goat or mixtures), vegetarian cheese alternatives. **excl.** cream cheese, processed cheese, sour milk cheese, spreadable cheese/spreads)
	Butter, margarine and mixed fats (**yellow fats**)	Butter, margarine (spreadable fat made predominantly from vegetable substances) and mixed fat (all shapes: cubes, blocks, cups, portions, etc.)	**Example:** Rama Culinesse **incl.** semi-fat butter, butter with additives such as herb butter, liquid vegetable cream, animal and vegetable fats **excl**. edible fats/white fats (e.g. coconut fat, lard), edible oils (e.g. coconut oil)

Table 18: BWB shopping cart detailed presentation (4/6)

Basic food	Cooking oil	liquid edible fats at room temperature (e.g. all common vegetable oils, mixed oils, single-variety)	**E.g.:** corn oil, rapeseed oil, pumpkin seed oil, olive oil, safflower oil and sesame oil **incl.** special oils, flavored oils (partly with visible additions of herbs/spices)
	Rice	all types of sprouted rice (i.e. real grain), raw rice, pre-cooked/microwave rice, unseasoned and seasoned/flavored rice, mixtures of rice and other cereals, if these consist mainly of rice;	**Ex:** long grain rice, risotto rice, round grain rice, basmati rice, jasmine rice, boiled bag rice, express rice **incl.** wild rice **excl.** spelt rice, lentil rice etc. (cereals milled into rice form, pulses), dry ready meals made from rice (e.g. Knorr Risi Bisi, Knorr Sweety milk rice), ready-made risotto
	Stuffed pasta (uncooled and dry)	all uncooled, dry pasta, filled	**Ex:** tortelloni, ravioli **excl.** chilled pasta
	Pasta unfilled (unrefrigerated and dry, excl. Asian pasta)	all uncooled, dry pasta, unfilled, in all shapes and colors	**Example:** pasta made from durum wheat semolina with/without egg, but also other types of grain (e.g. spelt, wholemeal, buckwheat, kamut, maize, millet, etc.) **incl.** pasta with additives, such as a higher vegetable content (e.g. tricolore, spaghetti), grated pasta (spaetzle, tarhonya, etc.), pasta in rice grain form (e.g. Greek kritharaki, Italian risoni), unrefrigerated potato gnocchi; lasagne sheets, canneloni tubes, soup garnishes in the form of pasta **excl.** Asian pasta (rice noodles, udon, etc.), dry pasta ready meals (Italian, Asian, etc.) e.g. Knorr Spaghetteria, Maggi Magic Asia, soup garnishes (baked peas, pancakes, Schöberl), chilled pasta
Convenience	Muesli and traditional cereals	Traditional cereals: breakfast products made from cereals for adults and children. Muesli is a preparation of rolled oats and other cereal-based products (e.g. corn flakes) as well as fruit or dried fruit, which is usually eaten for breakfast with milk, soy milk, yoghurt or fruit juice. In contrast to *porridge*, the oat flakes are not cooked, but merely soaked	**E.g.:** Cornflakes, Choco Balls/Chips/Rice, Loops, Cini Minis, Smacks, Honey Pops, Traditional/Classic Flake Mueslis, Crunchy Mueslis, Porridge Oatmeal, Breakfast porridge/meals **incl.** muesli toppings (e.g. made from cereals and seeds) **excl.** baby cereal porridges (for baby food - dry baby food)
	Chilled soups, wet and dry	contains dry soups/pouched soups and wet soups can be kept unrefrigerated or refrigerated	**E.g.:** dry soups (which have to be boiled with water), instant soups (which only need hot water poured over them), wet soups (e.g. in cans, jars, pouches or cups) **excl.** clear bouillons (in cubes, powder/granules, etc.), stocks as a base for soups & sauces, frozen soups, soup garnishes

Table 18: BWB shopping cart detailed presentation (5/6)

Frozen food	Frozen vegetables, fruit or herbs	contains frozen vegetables (raw/unseasoned) frozen fruit/fruit, frozen herbs, frozen mushrooms and frozen tomato paste	**Ex:** Iglo vegetable ideas, Iglo à la carte vegetable-rice pans **incl.** ready-to-eat vegetables refined with cream, bacon, etc., roasted and stir-fried vegetables**,** frozen smoothies and compotes (also with added sweetened fruit juice) **excl.** frozen vegetable pans (rich pans (without meat) that can be regarded as a separate dish) - for frozen ready-to-eat meals
	Frozen potato products	Contains frozen potato products	**Ex:** French fries, croquettes, fried potatoes, potato pancakes, rösti (also filled), rösti/potato pockets, Wegdes, smiles, duchess/princess potatoes/fries duchesse, mini potato gratins **excl.** frozen potato dumplings, potato noodles - for frozen ready meals
	Frozen fish or seafood (without garnish)	Frozen fish without garnish: whole or in other forms (fillets, blocks, steaks, sticks, etc.), natural (unbreaded and unprepared), breaded (traditionally breaded, lightly breaded (incl. batter (not puff pastry) or crispy breading (e.g. pumpkin seed breading, potato crust, etc.), processed into fish loaves, prepared (seasoned, marinated, marinated on skewers with/without vegetables, etc.)	**E.g.:** Polar cod fillet blocks, fish sticks, fillets natural or breaded, Müllerin style **incl.** fish burgers, fish cakes, also substitute products made from soy, wheat, etc., which are labeled as "fish" or similar (e.g. vegan fish sticks / fish sticks) **excl**. frozen seafood (e.g. prawns, scallops, octopus, scampi, Norway lobster, calamari, baked squid rings, etc.), frozen fish in puff pastry or for gratinating ("Schlemmerfilet") with a layer of ingredients as a topping, fish dishes, casseroles, sushi or similar.
	Frozen pizza, snacks or -baguettes	TK Pizza of any kind (Italian, American, Greek, Lahma-cun=Turkish pizza)	**incl.** mini pizzas (e.g. Wagner Picollinis, Dr. Oetker Pizza Burgers), frozen pizza snacks, boats, corners, slices, buns, pockets (e.g. Wagner Focac- cini, Wagner Rustipani, etc.), baguettes (e.g. Dr. Oetker Bistro Baguettes), overbaked sliced bread specialties (e.g. Wagner Stone Oven Baker's Crust, etc.).similar), baguettes (e.g. Dr. Oetker Bistro Baguettes), overbaked sliced bread specialties (e.g. Wagner Steinofen Bäckerkruste, Spar Hüttenbrot) **excl.** frozen savory/sweet tarte flambée, frozen filled whole baguette breads (e.g. herb baguette)
	Frozen poultry products without side dishes	all frozen poultry products without garnish, which are pre-cooked or pre-baked, breaded or unbreaded or offered with sauces (also with dip)	**incl.** substitute products made from soy or seitan that are labeled as "chicken", "turkey" or similar (e.g. vegan nuggets) **excl.** frozen poultry dishes with side dishes - for frozen Ready to Serve Meals, raw frozen poultry meat (e.g. goose, chicken)

Table 18: BWB shopping cart detailed presentation (6/6)

Confectionery	Chilled and non-chilled bars	Non-chilled bars: all non-chilled confectionery in bar form (normal or mini) mostly with, but also without chocolate coating, which are narrow enough bite off across the entire width - also known as "Stän- gel" (e.g. Frey Stängel). They are offered individually and in multipacks (their minis, but not the miniatures, are also included). Chilled bars: all chilled bars, such as cake bars, wafer bars, chocolate bars and cream cheese bars, i.e. vitrine-chilled desserts in bar form	**Ex:** - Non-chilled bars: chocolate bars (e.g. Mars), wafer bars (e.g. Milka Leo), cookie bars (e.g. Twix), cake bars (e.g. Milka Tender), muesli bars (e.g. Corny), cereal bars (e.g. Kellogg's Smacks), fruit bars/slices: classic, fruit mass between 2 wafers - Chilled bars (e.g. Nesquick Chocolate Snack, Kinder Maxi King, Kinder Choco Fresh) **incl.** muesli bars, cereal bars, fruit slices/bars, fitness/energy & protein bars, marzipan bars **excl.** bars in bar-like packaging (e.g. children's chocolate), Toblerone, miniatures of bars (in praline size)
	Chocolate bars (excl. cooking chocolate)	Chocolate bars (eating chocolate) include all chocolate bars that are shaped in such a way that they can be broken into mouth-sized pieces. Most bars have regular breaking grooves and are square or rectangular. However, other shapes that can be broken into pieces also count as chocolate bars; they can also be portioned (as pieces or bars) as long as they are offered in a normal-sized bar-like package	**incl.** Toblerone, Lindt chocolate sticks, Schogetten, children's chocolate **excl.** household/cooking chocolate, eating chocolate in other forms (e.g. cat tongues, naps/napolitains, chocolate coins, chocolate umbrellas, etc.), bars in a gift box/chocolate-like character (e.g. Merci variety, classic chocolate bars such as Mars, Bounty, etc.)
Savoury snacks	Potato potato chips and sticks	Potato-based snacks that are not extruded, such as trad. Potato chips in a bag (cut from whole potatoes), stacked chips (pressed, baked chips made from potato flakes and other ingredients such as oil etc.) and potato sticks (cut from whole potatoes)	**Ex:** potato chips in bags, stacked chips, potato sticks (e.g. Kellys Mini-Fritts) **excl**. tortilla chips, extruded snacks made from potato dough (e.g. Pom-Bear, Lorenz Pom- mels) or peanuts (e.g. snips/peanut curls)
	Pretzel and savory pastries	contains pretzels & savory cookies. Lye cookies: snacks with a typical, shiny brown surface, which is obtained by special pre-treatment during baking, savory cookies: other savory cookies	**Ex:** - Pretzel pastries: pretzel sticks (e.g. Soletti), pretzels, mixes (e.g. Party Mix) - Salty cookies**:** other salty cookies and crackers (e.g. grissini, puff pastry sticks/biscuits, cheese taler, Goldfischli, TUC, LORENZ Clubs) **excl**. potato potato chips, potato sticks, stacked potato chips, tortilla potato chips or other forms of crispy snacks (nuts, etc.)

12. List of illustrations

13. List of tables

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