

Price comparison platforms in the sector of food industry

Focus paper on sector inquiry into the food industry

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I. Background

Due to the increase in inflation since the end of 2021, the AFCA is focusing its competitive investigations and market observations in particular on those sectors, in which the **price increase is particularly noticeable** and has an especially strong impact on the living costs for the population. By these developments, the **food industry** is particularly affected. On **25th October 2022** the AFCA launched the “Sector inquiry into the food industry”¹. The AFCA may initiate a general investigation into an economic sector ex officio, if circumstances reveal that the competition in the sector is limited or distorted.

The AFCA analyses the following **four core questions** from a competition perspective:

1. Where in the value chain did most of the food **price increases** go to in 2022 (primarily processing or retail)?
 - Can any particular trade practices between suppliers and food retailers be linked to this?
 - Were international food corporations able to benefit on that situation to a particular extent?
2. How have the **competitive factors** in the sector of food industry developed in recent years (e.g. number of retailers and suppliers, range of goods, buying power, price transparency, etc.)?
3. How have the **concentrations** within a broad selection of product categories and the **proportion of private labels** on the shelves of food retailers developed?
4. What influence on competition in the food industry does the increasing **role of online trade** have?

¹ In the “Sector inquiry into food industry”, the focus was deliberately placed on the essential everyday foodstuff. Alcoholic beverages and non-food items (e.g. drugstore items, cleaning products, clothing, electronic devices, etc.) were excluded.

The AFCA has so far sent out 10 rounds of requests for information, questioning **700 retailers** and over **1500 suppliers**.

Questions were asked about turnover, product range, market shares, pricing, business practices, private labels, costs and passing on costs, market entry barriers, price transparency, and many other aspects. The focus is generally set on **34 product groups** (e.g. drinking milk, pasta, frozen pizza, bread and pastries, fresh meat, etc.).

In recent months, there has been intensive **public and political discussions** on the extent to which simplified price comparisons for daily grocery shopping can support consumers.

The Minister of Social Affairs Johannes Rauch, together with Vice-Chancellor Werner Kogler and Minister of Agriculture Norbert Totschnig invited to a **Food Summit on 8th May 2023**. There the issue of transparency was also discussed intensively. An increase in price transparency was considered expedient, which can provide an advantage to consumers in their selection decisions. Instruments under competition law to stimulate fair competition were also discussed, as they internationally already exist or are planned for introduction.

Resulting to the Food Summit, the Federal Government decided in **MRV 58/15 of 10th May 2023** to tighten competition law, e.g. by extending the powers of the AFCA in the context of sector enquiries, tightening merger control and increasing the resources of the AFCA. In this context the AFCA has communicated possible starting points from an enforcement perspective to strengthen competition law, to the Federal Ministry of Labour and Economic Affairs. On **12th May 2023** a **Round Table** was held at the invitation of the Minister of Labour and Economic Affairs Martin Kocher, with the involvement of experts and the AFCA to discuss measures to strengthen competition and **increase price transparency** in general. It was also a particular question, whether and how a **food price transparency database** should be set up.

This **AFCA's focus paper** addresses the latter aspects of the discussions. On one hand, structurally restricted competition, combined with a highly concentrated market can regularly lead to higher prices. On the other hand, an increase in competition can have a price-dampening effect. An essential factor for functioning competition is the possibility for consumers to choose between several offers. In order to be able to take advantage of this opportunities, consumers need to be as fully informed as possible about the offers available to them. The key to obtain this basis to make their decision is to provide maximally simple and transparent access to this information for consumers. At the same

time, legal measures must **not contribute to a reduction in competition between companies** or facilitation of collusion.

The AFCA has therefore taken up the issue of price transparency as a supplementary part of this sector enquiry and after completing its surveys and analyses, is presenting a **focus paper**, which contains a summary of a market survey and competitive recommendations to ensure **more transparency and comparability for consumers**.

II. Survey of the price comparison platforms

In Austria, there are already various price comparison platforms available for a substantial part of **consumer goods** (e.g. geizhals.at, idealo.at etc.). These enable consumers to compare the prices of various manufacturers and retailers for products (e.g. household appliances) in a simple way and so the consumers can make fully informed and economic purchase decisions. For the food industry this field has been rather sparsely occupied, which could be due to various obstacles. With regard to the design of these existing **price comparison platforms for food**, there are currently great differences in Austria. Now, only individuals who currently make their services available to consumers free of charge run the existing transparency initiatives in the Austrian food industry.






The AFCA sent questions to better-known price comparison platforms (“platforms”) in order to deepen the knowledge on their mode of operation, data collection, and factual/legal framework. Five platform operators provided comprehensive answers to the questions asked:

- **Hesse-Preise.io** (<https://hesse-preise.io>)
- **Preismonitor.at** (<https://preismonitor.at>)
- **Preisrunter.at** (<https://preisrunter.at>)
- **Supermarkt.at** (<https://www.supermarkt.at>)
- **Teuerungsportal.at** (<https://teuerungsportal.at>)

The results of the survey are summarised and abridged below:

1. AFCA Question: Which price comparison platforms for food in Austria do you know (especially concerning food retail), and what is their focus?

[Note: The following brief descriptions of the individual platforms surveyed consist of their own descriptions and information provided by the other operators about “third-party” platforms, as well as the impression gained by the AFCA in July 2023.]

 Heisse-Preise.io	Displays historical prices from 2017 to the present in tabular and graphical form. Has a focus on analysis with comprehensive statistic tools including a user guide. Provides separate filters for organic produce, discount private labels, and ten food categories. Covers ten Austrian, two German, and one Slovenian retailer. [Source code at https://github.com/badlogic/heissepreise]
 Preismonitor.at	Focused on selected product groups with price information from the last one to two years. Clear presentation of price changes per supermarket. Currently, the price monitor is limited to Austria's top 3 food retailers.
 Preisrunter.at	Graphically presenting the historical prices from 2017 to present. Has a separate section for price changes and promotional actions. Focuses on easy usability, including an AI-powered search to prevent typing errors. A shopping cart with shopping list and price tracking is creatable. Covers 13 Austrian and two German retailers, currently.
 Supermarkt.at	A comparison platform that includes not only promotional prices, but also all prices and has a separate section for promotions promotional prices. On the "supermarkt.at" platform, consumers can find the most important food products by the best-known manufacturers and brands. It is currently possible to view around 5,500 food items with daily-updated prices as well as promotional actions and offers from the shops and the static supermarkets (currently seven).
 Teuerungsportal.at	Lists products and price trends over the last few months and shows "inflation". The user-community is helping with the product categorisation. Contains a separate section for average electricity prices by postcode. Website also available in English and in dark mode. Currently maps eight Austrian retailers. [Source code at https://github.com/Zumpel96/Teuerungsportal]

2. AFCA Question: Are there regulatory factors that complicate or hinder operation of a price comparison platform for food?

- All platform operators mentioned the unclear or uncertain legal situation regarding "web crawling"², i.e. the automatic searching of web shops and the collection/analysis of the data, as a relevant topic.
- Some retailers explicitly prohibit the storage and display of their website content in their general terms and conditions; the general terms and conditions of one retailer are as follows "*insofar as the use is not compulsorily permitted by law, [...] any use of the content of this website, in particular storage in databases, reproduction, dissemination or editing [requires] express*

² See, for example, <https://de.wikipedia.org/wiki/Webcrawler>.

*written consent*³. According to one provider, it is surprising, that some retailers store metadata on their online shops in order to make crawling easier for Google and others.

To some platform operators it was not clear either whether they might be infringing on trademark/copyright rights or rights to images if they used product names/images on their websites. All but one of the operators have so far refrained from illustrating the products. Google acts therefore differently as products are shown pictorially in the search results.

- Protection of the own database was mentioned as a rather marginal topic, in terms of sui-generis database protection and copyright. Two website operators, have made their source code for the respective website available as open source on github.com, where it can be used and modified for individual purposes in accordance with the rules of open-source software.

3. AFCA Question: Are there any other reasons that make it difficult or hinder the operation of a price comparison platform for food?

- Technically, there are no general difficulties in operating a price comparison platform. According to several operators, only a simple server is necessary for operation of the website as well as for crawling. It is reported, that the running costs for operating the server are rather low.
- With the appropriate expertise and shown by the project Heisse-Preise.io, it is possible to write the source code in quite a short time. According to their own information, they created a first prototype in just a few hours, which was continuously revised and improved since.
- The amount of data generated by crawling or operating the website is also small and accounts for only a few megabytes. Therefore, the internet costs are also negligible.

4. AFCA Question: What are the difficulties for a price comparison platform in obtaining price data and updating them on a daily basis?

- Every product in each web-shop has its own internal number or identifier, now. "Matching" – i.e. forming product pairs across the individual online shops of the food retailers – by name is hard because there are often variant

³ Original quote in German language.

spellings for products (e.g. “Coca-Cola” or “Coca Cola”). In practice, this hinders the comparison of equivalent products.

- The online assortment does not necessarily reflect the entire offline assortment. Currently, the platforms can show and compare only (albeit very large) selections of the total range, which according to some operators is generally sufficient for the purposes of transparency.
- Some retailers list only promotional items online, which makes it difficult to compare their prices with those of other retailers.
- Smaller regional or local retailers generally do not operate an online presence or web shop, which means that they cannot be represented in the price comparisons.
- Some promotional items are only offered in certain outlets of the large food retailers and are not listed as promotions in the web shop.
- Determining price data occasionally presents an obstacle, since not all supermarkets offer or want to offer an API⁴. In some cases, only crawling via the websites makes it possible to access data directly of the respective online shops.
- As a technical obstacle, retailers could block the web scraping IP address of the comparison platform, which would prevent crawling. It is also possible to protect one’s own API from unauthorised access through security tokens.

5. AFCA Question: If the conditions were ideal for you / your company, would you be generally interested in improving, expanding and / or extending your price comparison platform for foodstuff? If so, how?

All of the five platform operators that answered the request for information are planning improvements in the near future for the benefit of consumers and other users (e.g. scientists, journalists, etc.).

Work is carried out on the following items, among others:

- Improved search functions and easier usability.

⁴ An API is a software interface that allows independent applications to communicate with each other and exchange data.

- Analytical tools for pattern recognition and price prediction.
- Shopping basket comparison between the retailers' web shops.
- Price alert.
- Mobile apps (Android, iOS).

6. AFCA Question: What legal changes are necessary to enable you to significantly improve, expand or extend the services of your price comparison platform for food?

- It was widely reported that publicly available price information (and possibly also the product images) for the purposes of a price comparison platform should be exempt from copyright and other IP rights.
- According to price comparison platforms, the collection, storage, processing and presentation of this price information should be permitted independently of retailers' general terms and conditions, in order to ensure to provide consumers with comprehensive information on sales prices.
- In the opinion of the respondents, food retailers – possibly only above a certain size – should be obliged to publish the entire assortment and not only promotional prices (in stationary trade), as a daily updated data set. It is expedient to take be carried out in a standardised and uniformly comparable form, so that this information can be processed by the price comparison platforms effectively and without errors.

7. AFCA Question: What further changes are necessary to enable you to significantly improve, expand or extend the services of your price comparison platform for food?

An API is needed, that is available free of charge for users to directly access the price data and other information of the articles would be necessary. The information via this interface must be available as a daily updated data set, whereby the retailers must adhere to the daily price they specify.

Several operators requested the following standardised information:

- Minimum: EAN (barcode), product name, brand, manufacturer, price per sales unit, quantity (grams/millilitres).

- Extended (in addition to minimum): Country of origin, promotion (yes/no), organic (yes/no), vegan (yes/no), allergens, quality label, category (e.g. “food/chilled goods/dairy product/milk” or “food/baking agents/flour”).

In addition, there were isolated requests to obtain (i) current price data of all products offered by the retailers, online and offline, and (ii) historical data (unless already available).

8. AFCA Question: How do you / your company go about identifying prices and price changes? What about product discontinuations and new products?

Across all platforms, these functions work according to a similar pattern:

- Every day (or several times a week), crawlers record, validate and normalise all products and the associated data (price, weight, quantity, etc.) and store this information in a database. Subsequently, a reconciliation partly automatically and partly manually takes place, in order to identify identical/similar products across the online shops for the price comparison (“matching”). New products will be recorded automatically. Discontinuations will be detected when a product is not displayed, several times in succession.

9. AFCA Question: Is there anything else you would like to tell us about transparency measures to strengthen competition in the food industry?

Two operators stated that from their point of view, there was evidence of price patterns and hence a need for action in this area, especially the following patterns:

- Simultaneous upward or downward price changes are recognisable between retailers. In some cases, the price changes took place only one day after those of the competitor.
- Discount brands are sometimes priced the same (to the cent), this in the entry-level and the mid-price segments.
- The price of some products increases after a promotion compared to the previous price, the promotions are used to increase the list price (i.e. the non-rebated normal price). In some cases, this happens over a longer period with several promotions and price increases.

10. AFCA Question: What other comments do you have on the AFCA's possible recommendations?

[Note: The first round of questions resulted in possible recommendations for the AFCA, concerning which the five platform operators were interviewed.]

- Several operators stated that they see a particular need for strict specifications for technical implementation of the API. This is to ensure usability of the API and avoid deliberate access restrictions or technical barriers. Among other things, they suggest that the design of the API should be in a simple format so that data can be retrieved without the use of search terms.
- The use of obsolete technologies should also be avoided in designing the API. In addition, clear specifications would be necessary on how access to or downloading of the accessible database has to take place. With regard to the URL to be used, it is suggested to define a standardised entry point for the interface after the access point to the API (in order to create an independent API end point) as well as the specification of standardised sub-items (e.g. prices) for structuring the content.
- The data packages available via the API should be subdivided into different pages in order to reduce the data volume of individual requests, whereby it would be necessary to specify the number of products to be listed on a single page (e.g. 50 or 100). It should be taken care to ensure that the food retailers' servers are not overloaded by accesses on the one hand and on the other hand that the download of data is not artificially slowed down by a very small number of articles per page or other precautions, on sometimes thousands of articles.

III. Information from the Austrian Retail Association on possible sources of error in information on price comparison platforms

In the context of its cooperation with the AFCA's sector inquiry, the Austrian Retail Association submitted an opinion on the specific issue of price comparison websites. In the same, **three possible sources of error** were explicitly named and explained, which, in the view of the Austrian Retail Association, would make the price comparisons of the platforms potentially "problematic".

The matching of the products performed by the currently accessible platforms is claimed to be often inconsistent, since, for example, branded products of one retailer are compared with discount private labels of another. In addition, allegedly it often happens that promotional prices of one retailer are compared with the list prices (i.e. the non-promotional standard prices) of others and, in addition, in many cases different package sizes quantities are compared with each other.

Tables showing specific errors of two platforms as examples accompanied the opinion of the Austrian Retail Association. The association's comments are subsequently included into this analysis.

In order to increase price transparency for consumers in the area of food as well as the accuracy of the information, it would therefore be of particular importance to eliminate – if and insofar as possible – the existing **sources of error through specification of uniform requirements**.

IV. Assessment

Functioning competition is usually given, when the prices of the individual products can be effective as signals (“price transparency”) and price changes are also recognised by a sufficiently high number of consumers (“area effect”). This **price transparency and area effect** must be accessible to consumers in a comprehensible and transparent manner, so that they can make their purchasing decision based on reliable information. Lower price transparency and/or area effect can therefore go hand in hand with higher prices.

High inflation can have a negative impact on how consumers process price information. Likewise, frequent price changes and promotional actions can make price comparisons more difficult. **High search costs**, i.e. difficulty of collecting information for an informed purchase decision, can thus contribute to less competition between retailers. Especially in times of high price volatility, price comparison platforms are used intensively, such as E-Control’s **fuel price calculator** after the start of the war in Ukraine.

Competition means, having a choice between comparable products or services. In order to make optimal use of this choice, comprehensive **transparency for consumers** is necessary. Therefore, from a perspective of competition law the AFCA assesses price transparency as a fundamentally **important driver of competition**, although the issue in its entirety is also a consumer policy issue. Transparency that only or predominantly benefits retailers can have a contrary effect. The goal of price transparency should be to enable consumers to benefit from it and to make their **purchasing decisions independently and objectively**, based on reliable information.

Demand-orientated and intuitive comparison options enable consumers to compare the prices of the desired products (e.g. as a shopping basket) between different retailers. This would also open up the possibility for smaller retailers or those who only operate stationary businesses (i.e. offline) to generate additional competition by appearing on a platform with competitive prices, a high-quality range of products, or a conveniently located retail location.

The extensive datasets and illustrative materials submitted by various price comparison platforms – and verified on a random-sample basis by the AFCA – indicate for a significant proportion of products that various **(price) patterns can be detected**, which can no longer be done manually (according to life experience) for thousands of products. It can therefore be assumed that operators of web shops in the food industry are already increasingly

crawling the prices of their competitors online and setting their own (online) prices accordingly – automated by **algorithms**. This can tend to **levelling of prices**, as competition should usually manifest in the form of differing prices and offers.⁵

Mutual market observation is common practice. Against this background it would be counter-productive, whether – due to new regulatory requirements – the price transparency thus increased also enabled or at least facilitated an automated exchange of information for the trading companies. In extreme cases, this could lead to tacit collusion based on algorithms, to the detriment of consumers. In this context, reference should also be made to the established case law of the Cartel Court and the Highest Cartel Court in Austria as well as the institutions of the European Union, according to which **(indirect) exchange of price information between competitors can already constitute an infringement of antitrust law**. It should therefore be ensured that any strengthening of **price transparency acts only in favour on the side of consumers**.

The current situation already presents itself with **asymmetric price information**. Retailers already have information at their disposal, they use for their own purposes but have so far been denied to consumers. Respectively, the latter did not yet have the same possibilities to utilise the flood of information, or to have it processed by third parties, to support decision-making.

More price transparency through price comparison platforms is generally to be supported even more, when asymmetric price information already favours companies, as it is the case in the food sector. It is to be expected that more price transparency for consumers will intensify competition, under otherwise identical conditions (i.e. the level of information of the companies remaining unchanged). In other words: In the current situation, mature price comparison platforms, as they are being developed, should have a positive influence on competition.

In the AFCA's view, such platforms should not be limited to just a few products, but should ideally also **render baskets of goods comparable**, too. Similarly, **not only discount products** but also all price segments should be compared.

The **opinion of the Austrian Retail Association** is indeed relevant, as all three items/sources of error complained about do occur in individual cases and could cause

⁵ It should be noted that observation of the market behaviour of competitors and the corresponding orientation of one's own market behaviour – with technical aids – does not constitute a violation of antitrust law standards in itself as long as this behaviour is the expression of autonomous entrepreneurial decisions and not based on coordination or other consultation with competitors.

erroneous price comparisons. The following recommendations address this issue. Content and comparisons must be of high quality in order to justify **consumer confidence**.

In the AFCA's view, it is necessary to implement a **structural transparency measure to strengthen competition**, which has a direct impact on consumers. The existing platforms in the food industry already show, under the current framework conditions, how much **creative power and innovation Austrian tech start-ups** have in this regard. Suitable legal framework conditions could further unleash the existing spirit of innovation and entrepreneurship in order to improve transparency in food retailing for consumers in a competition for innovation. The following section summarises some of the essentials of this transparency measure.

V. Key points to strengthen price transparency for consumers

1. Every food retailer operating an online shop – at best from a certain size, even independently of operating an online shop – could be obliged to make the products offered (and further information listed under key point 2) accessible to a qualified public under certain conditions via an API interface. An API is a software interface that allows independent applications to communicate with each other and to exchange data. The API could refer to the online shops from which the data are already available and presumably accessible to competitors by way of web crawling anyway. Under certain conditions, important and comparable information could be made available to a qualified public (such as price comparison platforms, the AFCA, consumer protection organisations, research departments and universities). Other retailers and competitors would have to be excluded from this access and its use. In the AFCA's view, the product information should be available via the API in a uniformly specified format and in a standardised manner. For the implementation of these measures, the obligated retailers should be given a reasonable amount of time.
2. The scope of the relevant information – made accessible via API – should include at least the following details: EAN (barcode), product name, manufacturer, brand, price per sales unit, quantity (in grams/millilitres/pieces), country of origin, promotional offer (yes/no), organic (yes/no), category according to a defined level scheme (e.g. "food/chilled goods/dairy product/milk"). The following additional information would be optionally useful: Vegan (yes/no), allergens, quality labels (e.g. AMA).
3. Legal framework conditions would have to be created to allow the use of the information – obtained from the API – for the purposes of storage, processing, etc. to the necessary extent. GTCs prohibiting use of web shop data should accordingly be considered "inapplicable" on this point.
4. Retailers not subject to the obligation under key point 1 should also be given the opportunity to provide their products via an API under the same conditions. This also opens up the possibility – primarily for small and stationary traders – to

create additional competition on the market and increase consumer presence by appearing on price comparison platforms.

VI. Possible legislative implementations

In favor of the AFCA, an amendment to the Price Indication Act (“PrAG”) or the E-Commerce Act (“ECG”) and/or the issuance of an ordinance based on the powers granted by the PrAG or the ECG (“implementation”), could – among other – be suitable for the legislative implementation of the above recommendations – in order to enable easy and reliable price comparison by platforms. An amendment to the Fair Competition Act (“FWBG”) would also be conceivable. The aim is to make comparison of food prices easier and more reliable for consumers.

In terms of content, it should be regulated/defined in any case that (a) certain retailers of an industry are subject to the obligation to (b) make certain information available via an API, under certain conditions free of charge, and to a qualified public (such as price comparison platforms, the AFCA, consumer protection organisations, research departments and universities). Other retailers should, as competitors, be explicitly excluded from this access.

Particularly with regard to

- (i) obligations that affect the retailers concerned in this sector,
- (ii) specific technical requirements concerning the information to be published, the technical description and mandatory design of the API and its access authorisations on the basis of concrete implementation specifications as well as
- (iii) the continuous updating of the data, clear content specifications should be made for the implementation.

Notes from the platform operators regarding implementation have been summarised under item II, sub-item 10.

Furthermore, the following aspects could also play a role:

- Should food retailers set up their own platforms, access to the APIs of other food retailers would have to be regulated/restricted accordingly;
- the independence of the platforms could be compromised if individual companies directly or indirectly own platforms, e.g. advertising, acquisition of shares, etc.;
- the intended obligations should be formulated in such a way that violations of the commitments resulting from the implementation can actually be punished.

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