# Rebalancing the Market Power: Manufacturer and Retailer Brands in the German Food Retail Market

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# Rebalancing the Market Power. Manufacturer and Retailer Brands in the German Food Retail Market

#### **Abstract**

The German food retail market is considered to be one of the most competitive markets worldwide. A narrow oligopoly of domestic retail chains dominates competition at the national and regional levels, driven mostly by price competition and extensive market coverage. As a result, market entrance for potential newcomers is highly restricted, even for such global players like Wal-Mart, which retreated in 2006 after nine years of substantial financial losses in Germany. There have been discernable attempts by the domestic incumbents to rebalance the traditional "task division", affecting the range of customers choices as well as retail brands. However, within ten years the share of large retailers brands earnings in the total food retail market increased from 21.8 percent to 38.8 percent in 2012, as "house brands" optimized their assortment, increased their independence from main suppliers and squeezed out competitors. The empirical analysis presented below describes the role played by different retail brands in German food retail market as measured by their market power, and considers its political implications.

**Keywords**: manufacturer brands, retailer brands, market structure, market power, food retail **JEL**: E23, L1, L81, O34

### Introduction

The economic interdependences of manufacturer and retailer brands<sup>2</sup> have attracted growing research interest. Many economics related works focus on the link between retailer brands and consumer demand [Baltas, 1997; Baltas et al., 1997; Gonzales, Mieres et al., 2006; Glynn, Chen, 2009]. Some researchers have also explored the role of leading retailers in the current growth of retail brands [Davies et al., 1986; Fitzell, 1993; Hoch, 1996; Dhar, Hoch, 1997; Dunne, Narasimham, 1999; Burt, 2000; Kumar, Steenkamp, 2007; Mills, 1995; Steenkamp, Dekimpe 1997; Steiner, 2004]. In addition, the literature considers the relationship between retailers and suppliers and the role that retail brands play in this interdependence [Shaw et al., 1992; Bhasin et al., 1995; Cotterill, Putis, 2001; Scott-Morton, Zettelmeyer, 2004; Johansson, Burt, 2004].

The current research analyzes the German food retail market from an empirical perspective, showing the impact of market structures on its functioning and analyzing how changes in competition affect the role of incumbents. The article focuses first on market structures and resulting market power, ignoring the impact of competition processes on the food retail market. Based on a concept originated from the Harvard School [Schmidt, 2005, pp. 56-62] of the "market structure-conduct-performance paradigm" we use a quantitative approach of market share analysis relying on data provided by the German food retail market survey of the German Federal Antitrust Office Bundeskartellamt in 2014, which provides information on the role of retail brands in food products retailing in the 2008-2014 period. In the second part, we consider the interaction of large retailing enterprises and their suppliers in two food categories in the period 2008–2010. When analyzing market structures we rely on policy instruments used by German and European policies makers for the short and medium term. When a long term perspective is considered competition concepts of the Chicago and Austrian Schools [Schmidt, 2005, pp. 14-25] are employed to address evolutionary market processes. Both approaches suggest questions for future research.

# **Food Retail Market in Germany**

The volume of the German food retail market is about 165.9 billion € in 2015, making it one of the biggest in Europe [Statista, 2015]. This retail market has some exceptional characteristics in terms of domestic competition, as illustrated by statement of the former CEO of the German retail chain Metro Hans-Joachim Körber, who labelled the German market as "the hardest in Europe" and its competition as a "chalybeate bath" [Grabitz, Seidel, 2006]. According to analysts and practitioners, the German food retail sector

is intensely competitive, mainly through prices charged by the leading domestic retail enterprises [Der Handel, 2014; Bundesverband der deutschen Ernährungsindustrie, 2015; Hoffmann and Loy, 2010, p. 1]. As a result of this competition in the last two decades any attempt to enter German market by foreign retailers has failed, as illustrated by the French retailer Intermarche in 2004 and the U.S. retailer Wal-Mart in 2006 [Spiegel online, 2006; Handelsblatt, 2004]. There are multiple reasons for those failed attempts, including excess supply capacities, very small business margins, and the unique characteristics of German customers. Given those failed attempts it is not surprising that leading global retailers, such as the British Tesco or the Dutch Ahold, hesitate to enter the German market. Nevertheless, customer prices for food items in Germany are not lower than in the rest of Europe, as the food price in Germany reached (in 2014) an index of 109.6 in comparison to the EU-28 average (see Figure 1).

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110,0
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FIGURE 1. Food price levels in European Union in 2014 [index, EU-28 = 100, PPP]

Source: own elaboration based on Eurostat (2015).

The German food price index positions Germany roughly in the middle of the EU. Countries such as France, the U.K, and Poland have lower price indices [Eurostat, 2015] and Denmark was considered the most expensive country for customers (index value of 135.2). Clearly, competition in the German retail market is not generating major price discounts as compared to other European market. Economic theory implies that price levels result from market processes, competition and, specifically, the behavior of incumbents or potential entrants. The current above average food price level in Germany therefore

reflects the effects of firms' competitive behavior counteracting and partially compensating competitive pressure on the food market. The implications of this competitive process for manufacturer and retail brands are analyzed in this paper. Our research does not cover consumers market behaviors as well as the distribution density effects resulting from the deviation of market shares and market power of competitors.

TABLE 1. Distribution of earnings on German food retail market by leading enterprises in 2006 and 2010

Earnings in food retail in Germany (food and non-food)				
Enterprise	Earnings 2010 [bill. €]	Earnings 2006 [bill. €]	Share of entire earnings 2010 [%]	Share of entire earnings 2006 [%]
Edeka	30-35	25-30	25-30	20-25
Schwarz Gruppe	25-30	20-25	20-25	< 20
– Lidl	< 20	< 15	10-15	10-15
- Kaufland	< 15	< 10	5-10	5–10
Rewe/Rewe Dortmund	20-25	< 20	15-20	15-20
Aldi	15-20	< 20	15-20	15-20
Metro	< 10	> 5	5-10	5–10
Midsize group (every retailer): Tengelmann, Globus, Norma, tegut, Bartels-Langness, Netto Stavenhagen, Dohle, Coop	< 3	< 3	< 3	< 3
Small size group (every retailer): Bünting, Jibi, Klass+Kock, Wasgau (now Rewe)	< 1	< 1	< 1	< 1

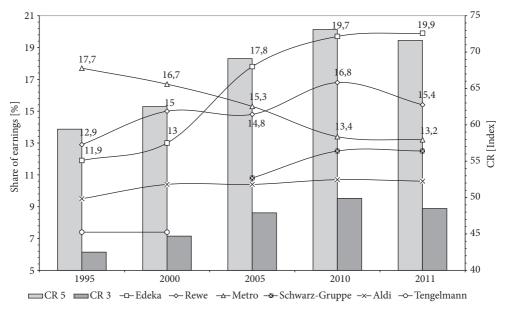
Leading oligopolists Edeka, Schwarz Gruppe, Rewe, Aldi in gray.

Source: own elaboration based on BKartA (2014), p. 78.

Considering the market supply side, food retail in Germany is clearly dominated by a narrow oligopoly of domestic retailers³, which has remained stable over the last two decades (see Table 1). Four large incumbents, Edeka, the Schwarz Gruppe, Rewe and Aldi hold the overwhelming share of the retail market, followed by Metro [BKartA, 2014, p. 78]. The largest enterprise (Edeka) classified in 2010 by the Bundeskartellamt according its earnings in food retail of between 30 and 35 billion €, holds a market share of 25–30%, and the second largest, Schwarz Gruppe, represented by Lidl and Kaufland, earned 25–30 billion € and holds a 20–25% market share. Rewe, as the third largest retailer, earned 20–25 billion €, holding a share of 15–20%. The discounter Aldi holds a market share of 15–20%, with 15–20 billion € in earnings. Because of its focus on the discount market segment, Aldi is only partially comparable to other leading retailers. The group of large retailers also includes Metro, though with smaller earnings (less than 10 billion €)

and a share of 5-10% followed by a group of eight mid-size retailers, each with earnings of less than 3 billion €, and a smaller sized group with earnings of less than one billion €. In 2006-2010 the leading retailers, especially Edeka and the Schwarz Gruppe, increased their market shares by expanding earnings, whereas Rewe, Aldi and Metro increased their earnings only by the market average growth rate.

FIGURE 2. Distribution of earnings and concentration ratios of leading enterprises in food retail (incl. non-food sales) in Germany 1995–2011



Leading oligopoly Edeka, Rewe, Metro, Schwarz Gruppe, Aldi (since 2005), Tengelmann (until 2005). 2011 estimated prognosis.

Source: own elaboration based on Monopolkommission (2012), pp. 359 f.

The Monopolkommission measured the distribution of earnings and concentration ratios of the leading retailers in food retail (incl. also non-food sales) in 1995–2011 [Monopolkommission, 2012, pp. 359 f.]. Data showed that Edeka developed from the third-largest retailer to a leader by increasing its market share from 11.9 to 19.9% (see Figure 2). Despite the legal corporate structure of Edeka, it acts on procurement and retail markets as an economic entity with a uniform brand policy for stores, homogenous assortment and bundled procurement structures. The largest retailer in 1995, Metro, lost share (from 17.7 to 13.2%), whereas the second largest incumbent, Rewe, increased share from 12.9 to 15.4%. The discounter Aldi held a constant share of around 10% in the German market. Until 2000 the retailer Tengelmann belonged to the top five largest enterprises.

In 2005 it was superseded by the Schwarz Gruppe. According to the Monopolkommission, the five leading enterprises held in 2011 a share of 71.6% of total retail earnings. This indicates a very high concentration in food retailing which has increased by 12.2 percentage points since 1995. The group of the three largest retailers captured 48.5% of the market (CR 3) in 2011, showing an increase of 6 percentage points and signaling an even more intensified concentration of market power<sup>4</sup> among the Big Three on the German market. Based on an evaluation of competitive market power, the five largest enterprises maintain a dominant position in food retail whereas concentration ratios indicate that a group of the three largest firms remain below the threshold signaling market dominance.

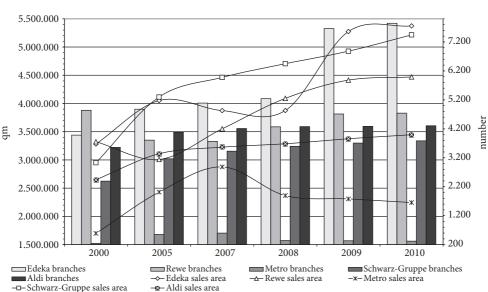


FIGURE 3. Number of branches and sales area sizes of leading food retailers in Germany 2000–2010

 $Leading\ oligopoly\ Edeka,\ Rewe,\ Metro,\ Schwarz\ Gruppe,\ Aldi.$ 

Source: own elaboration based on Monopolkommission (2012), pp. 353-359.

An important source of the market power of the leading retailer oligopoly is its extensive market coverage, inducing excessive oversupply capacities and thereby limiting "space of operation" for near competitors. Figure 3 shows on the left scale the expansive development of sales area sizes of the five leading retailers from 2000 to 2010 [Monopol-kommission, 2012, pp. 353–359]. The two leading companies, Edeka and the Schwarz Gruppe, increased their capacities (Edeka from 3.28 to 5.37 mill. m², Schwarz Gruppe from 2.95 to 5.21 mill. m²). Concerning the number of branches, indicated at the right

scale, Edeka expanded its presence on the market (from 3.983 to 7.846 branches). Aldi and the Schwarz Gruppe also increased the numbers of shops. In contrast, the second largest retailer, Rewe, reduced its sales sites slightly to 4.740 locations and Metro, with 320 branches in 2010, relied mostly on larger-sized stores, which makes comparisons with other retailers problematic.

In terms of retail branches only two large enterprises, Edeka and Rewe, are represented in all store formats nationwide, with the exception of hard discounter sales (see Table 2) [BKartA, 2014, pp. 82 f.]. They operate consumer and supermarkets of all sizes as well as soft discount stores at the national level. Only the regional retail chain Bartels-Langness provides a nearly comprehensive spectrum of sales areas in Germany. The third large national retailer, the Schwarz Gruppe, provides a broader variety of products than do supermarkets.

TABLE 2. Store formats in food retail in Germany in 2010

Store formats	Number of products	Share of private brands in total earnings [%]	Size of stores [m²]	Retailer
Large consumer store	20.000-160.000	3–18	> 2.500	Edeka, Rewe, Metro, Bartels- Langness, Schwarz Gruppe, Coop, Bünting, tegut, Dohle, Globus
Small consumer store	12.000-74.000	1–19	1.000-2.499	Edeka, Rewe, Bartels-Langness, Schwarz Gruppe, Coop, Bünting, Tengelmann, Klaas+Kock, tegut, Dohle
Large supermarket	11.000-27.000	5–28	400-999	Edeka, Rewe, Bartels-Langness, Coop, Bünting, Tengelmann, Klaas+Kock
Small supermarket	5.000-17.000	6–33	100-399	Edeka, Rewe, Bartels-Langness, Tengelmann
Discounter				
– Soft discounter	1.400-4.900	30-80	-	Edeka, Rewe, Schwarz Gruppe, Norma, Netto Stavenhagen
- Hard discounter	850-1.000	82-100	-	Aldi

Source: own elaboration based on BKartA (2014), pp. 82 f.

In 2010 the share of earnings generated by private (retail) brands (in total sales) reached 3–18% in large consumer stores and 1–19% in smaller consumer stores, which is less than in supermarkets (5–28% in large and. 6–33% in small ones). Schwarz Gruppe, which includes soft discounter Lidl, provides 1.400–4.900 products. The share of earnings

generated by private (retail brands) are as high as 30–80%. The major discount chain, Aldi, provides assortments of only 850–1.000 articles. In majority they are private (retail) brand items (82–100% of total earnings). Most discounters on the German market remain in soft discount sector They force price competition with hard discounters, but act as price leaders only in some market segments.

TABLE 3. Upstream vertical integration of leading food retailers in Germany 2010

Retailer	Food sector	Production facilities	
Edeka	Meat products and sausages	15 meat processing plants	
	Bakery products	17 industrial bakeries	
	Fruit juices	Sonnländer Holding GmbH	
	Mineral waters	Schwarzwald-Sprudel GmbH	
	Wines	Ortenauer Weinkellerei	
Schwarz Gruppe	Meat products and sausages	Kaufland Fleischwaren	
	Bakery products	1 industrial bakery	
	Mineral waters	Mitteldeutsche Erfischungsgetränke GmbH & Co. KG	
	Chocolate products	Solent GmbH & Co. KG.	
Rewe	Meat products and sausages	Metzgerei Wilhelm Brandenburg	
	Bakery products	Glocken Bäckerei, Bäckerei Rothermel	
Aldi	Coffee	2 Aldi roasting plants in Weyhe & Herten	
Wasgau	Meat products and sausages	1 meat processing plant	
	Bakery products	1 industrial bakery	
Globus	Meat products and sausages	local butcheries	
	Bakery products	local bakeries	
Bartels-Langness	Meat products and sausages	1 meat processing plant	
Klass+Kock	Meat products and sausages	1 meat processing plant	
Coop	Bakery products	1 industrial bakery	
Bünting	Tea	Bünting Teehandelshaus	

Leading oligopoly Edeka, Schwarz Gruppe, Rewe, Aldi in gray. Source: own elaboration based on BKartA (2014), pp. 79 f.

In past years many large food retailers have intensified their vertical integration (upstream integration) with the food supply sector to lower their dependence on large suppliers and optimize their value chains (see Table 3) [BKartA, 2014, pp. 79 f.]. The most advanced integration in terms of product spectrum and production quantities is exhibited by the largest retailer, Edeka, which produces their own meat, sausages, bakery products, fruit juices, mineral waters and even wines for its own stores and for partners. Other leading

retailers, like the Schwarz Gruppe and Rewe, also engage intensively in food production. The discounter Aldi runs two coffee roasting plants and is the largest producer of roasted coffee in Germany. Some smaller retailers also practice intensively in vertical integration, mostly in meat and sausage or bakery products, securing their own competitive supply in these core product categories. This upstream integration has improved the position of retailers.

# **Retail Brands and Market Power in Germany**

In the period 2008-2014 retail brands continuously increased their importance in the retail market, as indicated in the Figure 4. [Nielsen Company, 2015a]. After several years of stagnation their share in total earnings increased from 38.6 in 2010 to 41.3% in 2014, indicating an expansive international trend of brand development by large retailers seeking new profit opportunities and securing supply of retailer-customized products.

42 41,5 41,3 41 41 40,5 40,1 Share [%] 40 39,5 39,2 39 38,7 38,6 38.4 38,5 38 37,5

FIGURE 4. Share of retail brands in earnings on retail market in Germany 2008-2014 [%]

2008 Source: own elaboration based on Nielsen Company (2015a).

2009

37

In Germany however, the food retail market has, in contrast to European trends, maintained a 24% share in 2014, which is a medium share, in retail brands earnings [IRi, 2015], as indicated by Figure 5. Countries like France (29.1) or Netherlands (27.3) have significantly larger retail brand shares; others, like Italy (18.0), have smaller ones. The smallest share is recorded in the U.S., where the retail brand share is 16.4%. Some countries in Europe, such as Spain and the UK, have 42.0 and 51.5% shares respectively. Hence, the emergence of retailer brands in Germany is still lagging behind the leading

2012

2013

2014

European economies and remains 17.3%-points below the current share prevalent in the German general retail sector.

60 51.5 50 42 share [%] 29,1 24 20 18 16,4 15,4 10 0 U.K. Spain France Netherlands Germany Italy U.S.A. Greece

FIGURE 5. Retail brands shares in earnings generated in food retail markets in selected countries in 2014 [%]

Self-service-warehouses and supermarkets in Spain, Greece, Netherlands, France and Italy; Kantar Worldpanel total market U.K. 52 weeks at 14/09/2014 in U.K.; Supermarkets and convenience stores in U.S.A.; self-service-warehouses, supermarkets and drugstores in Germany.

Source: own elaboration based on IRi (2015).

German retailers not only expanded the quantity and the share of retail brands. They also improved diversification of their assortments and market penetration [BKartA, 2014, p. 107]. Table 4 shows the effects of retail brand policies beyond the original assignment of covering the low price segment, which is regarded as a basic must-stock. All retailers provide at least one medium price retail brand assortment, mostly with ecological or quality characteristics, that are often also combined with regional products (a policy that extends to discounters). The visible advance of nearly all large retailers (including all discounters) with positioning of their brands in the premium segment is also very striking. During the last several years retailers substantially increased their efforts to establish retail (private) brands in various market segments to accompany manufacturers brands. Along with the large, established production facilities, described above, the strong sales market power of leading retailers on the German market permits them to directly compete with large producers, owners of strong manufacturer brands. As a result, dependence on large suppliers has diminished and the market power of large retailers on the procurement side has increased, with the hard discounter Aldi as an outstanding example. The soft discounter Lidl, like the large full-range retailers Edeka and Rewe and the substantially smaller enterprise Dohle, engaged in price competition and retail brand expansion, being the only discounter present in all retail brand segments.

TABLE 4. Retail (private) brand segments of leading food retailers in Germany in 2010

D stailer	Low price	price Medium price segment		Premium	
Retailer	segment	Quality	Ecological	Regional	Premium
		Full-range re	etailers		
Edeka	x	X	x	X	x
Rewe	X	X	X	X	x
Metro	X	X	X		x
Kaufland	X		X		x
Tengelmann	X		X		x
Bartels-Langness	X	X	X		
Dohle	X	X	X	X	x
Соор	X			X	
Globus	X	X			x
Bünting	X	X	X	X	
Jibi	X	X	X	X	
Klaas+Kock	X				
Wasgau (now Rewe)	X		X		x
Discounters					
Aldi	X	X	X		x
Lidl	X	X	X	X	x
Penny	X	X	x		x
Netto	х	X	X		x
Norma	х	X	X		x

Leading oligopoly Edeka, Schwarz Gruppe (Kaufland, Lidl), Rewe, Aldi in gray.

Source: own elaboration based on BKartA (2014), p. 107.

Despite the general expansion of food retail brands their prevalence differs strongly among particular food categories on the German market as indicated by Figure 6 [Nielsen Company, 2015b]. The average share of retail brands in food retail in 2014 was 42.8%, only slightly higher than the year before and most food categories experienced small year per year-share variations. Remarkably, among seven food categories, including bakery (53.3%) and milk products (54.7%), those with retail brand shares exceeding 50% included self-service cheese (59.7%), sausages (58.4%), wet finished products (57.2%), wine & sparkling wine (44.7%), and ice cream (50.2%). The lowest shares of private (retail) brands included cheese with service (3.0%) and beer (12.8%), revealing that habits and preferences of customers, which rely more on familiar (manufacturer) brands, intensively determine their purchases. In case of wine and ice cream products retailers gained substantial market share despite competition from strong international brands, which suggests the intensified future expansion efforts also in other food categories with strong customer brand affinity.

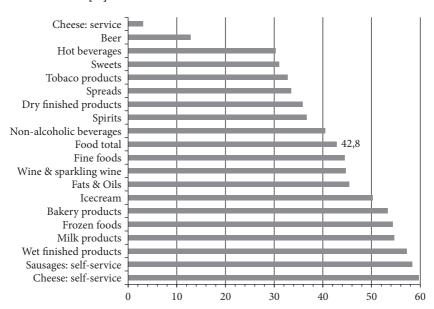


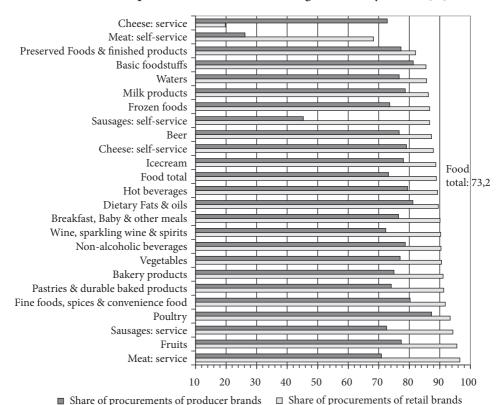
FIGURE 6. Share of retail brands in food retail in Germany (incl. drugstores) in 2014 [%]

Source: own elaboration based on Nielsen Company (2015b).

Large retailers, as measured by their sales area size, number of branches and nationwide distribution network, have strong negotiating power on the procurement markets. [BKartA, 2014, pp. 151-154]. In 2010 the aggregated share of procurements on the food market of the leading oligopoly (Edeka, the Schwarz Gruppe, Rewe and Aldi) reached 84%, which provides them with unique market power. Given that the Schwarz Gruppe consists of two different economic entities (Kaufland and Lidl) the corresponding threshold for market dominance of the leading oligopoly is  $CR_s = 66.67\%$ . These companies enjoy a joint market position according to the joint power concept of horizontal market power. Their procurement share varies between food categories, ranging from 71.1% in ice cream to 87.6% in fruits. In the procurement of manufacturer brands the leading oligopoly enjoys a 73.2% share, leaving smaller competitors a slightly larger market share than in the whole market. This indicates a lesser comparative disadvantage of smaller competitors in this product (brand) category. Under most conservative estimates the joint share of the large firms (considering Kaufland and Lidl as formally independent entities) is still 6.53% points above the market dominance threshold according the concentration ratio CR<sub>s</sub>. When considering particular food categories, the procurement shares of the "big four" reveal major differences: the spectrum varies from 26.2% in meat (self-service) to 87.3% in poultry. Aside from the meat category, the procurement share in self-service sausages is 45.3%, which is rather small, indicating that large retailers rely mainly on other

supply sources. In contrast, all other food categories reveal procurement shares above 70%, signaling a major market power against the supply side. When the procurement of retail brands is considered, the differences of oligopoly market shares are even higher: the spectrum ranges from 19.8% in cheese (service) to 96.6% in meat (service). With the exception of meat (self-service), all other food categories exhibit procurement shares above 82%. The average share in total food is 88.9%, which indicates that large retailers can use their dominant market power on the demand side in retail brands even more than in manufacturer brands procurement. In 11 of 24 food categories they reach retail brand procurement shares above 90%, including such consumer products as meat and sausages (service), fruits or bakery products, and wine, sparkling wine and spirits.

FIGURE 7. Aggregated share of leading retailers in procurements of manufacturer brands and private brands in food retailing in Germany in 2010 [%]



Leading retailers: Edeka, Schwarz Gruppe (Kaufland, Lidl), Rewe, Aldi. Positions of food segments ranked by share of retail brand procurements.

S o u r c e : own elaboration based on BKartA (2014), pp. 151–154.

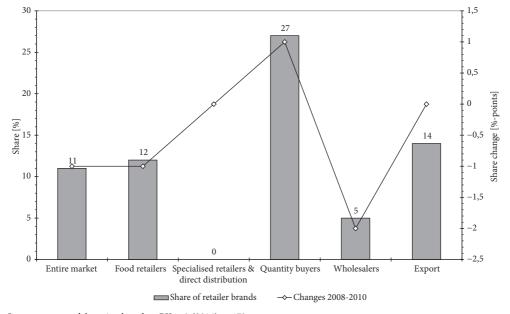
# Manufacturer and Retailer Brands in Selected Food Market Segments

To analyze in more detail the strong interdependence of large German retailers and suppliers on the procurement market for food, two food categories are selected: sparkling wine and roasted coffee. This choice was based on some unique aspects of representation and substantial differences between particular market segments.

## Sparkling Wine Manufacturer and Retailer Brands

The retail sales of sparkling wine in Germany are clearly dominated by manufacturer brands. Their share reaches 89% of total earnings, which reduces the role of retail brands in this market segment to a minor level of 11% (Figure 8, left scale) [BKartA, 2014, p. 172].

FIGURE 8. Share of retailer brands in total earnings (left scale) [%] in retailing of sparkling wine in Germany in 2010 and its dynamics in 2008–2010 (right scale) [%-points] by distribution channels



Source: own elaboration based on BKartA (2014), p. 172.

Food retailers only reach a comparable manufacturer-retailer brand ratio with larger shares of brands among quantitative buyers (27%) though the strong role of manufacturer

brands is evident. There appears to be a high concentration of manufacturer brands among specialized retailers and direct distributors, which is absent in retail brands. The retail brand shares for all distribution channels, with the exception of quantitative buyers, decreased slightly in 2008–2010 (see Figure 8, right scale), strengthening the position of manufacturer brands [BKartA, 2014, p. 172]. When the market shares of leading retailers in sparkling wine procurements are considered, the market shares of the three large enterprises exceeded 15%, with the Schwarz Gruppe being the largest (see Table 5) [BKartA, 2014, p. 173]. In 2008-2010 their shares remained constant, with the exception of Rewe, which improved its procurement position. As was the case of manufacturer and retail brands, the remaining retailers have maintained an aggregated share of only 5-10%. In manufacturer brand procurement Edeka and the Schwarz Gruppe held shares of 20-25% each, with Rewe being the third largest buyer (15-20%). the data for hard discounter Aldi are not available, but it did not engage in manufacturer brands procurements. By contrast, Aldi held a 45-50% share in procurements of retail brands in the German market and was expanding its position in 2008-2010 against the shrinking general market trend. In the market for sparkling wine the concentration ratio CR, indicates a dominant market position of this hard discounter. The next largest retailer on the demand side, the Schwarz Gruppe, maintained only 10-15% of procurements. Two dominant sellers, Edeka and Rewe, held relatively small market shares of less than 5% and 10%, respectively. Since the concentration ratio CR<sub>e</sub> (even when a "conservative" approach is used) fell, the above mentioned firms still maintain a dominant market position. As a result on the demand side manufacturer brand procurements are represented by three to four large retailers; in retailer brands the level of concentration on the demand side is even higher, with two to three retailers.

TABLE 5. Market shares of retailers by manufacturer and retailer brands of sparkling wine in Germany in 2010 [%]

Retailer	Entire market share	Share in manufacturer brands	Share in retailer brands
Edeka	15-20 (0)	20-25 (+5)	< 5 (-5)
Rewe	15-20 (+5)	15-20 (0)	5-10 (0)
Schwarz Gruppe	20-25 (0)	20-25 (0)	10-15 (-5)
Metro	5-10 (0)	5-10 (0)	< 1 (0)
Aldi	5-10 (0)	-	45-50 (+5)
Remaining retailers	5-10 (0)	5–10 (-5)	5-10 (0)

Leading enterprise gray.

Market share category changes 2008–2010 in percentage points in brackets.

Source: own elaboration based on BKartA (2014), p. 173 [data available for 2010].

TABLE 6. Market shares of wine producers by manufacturer and retailer brands in Germany in 2010 [%]

Producer	Entire market share	Share on manufacturer brands	Share on retailer brands
Rotkäppchen-Mumm	40-45 (+5)	50-55 (+5)	-
Henkell	15-20 (0)	10-15 (0)	30-35 (+5)
Freixenet	15-20 (-5)	15-20 (-5)	15-20 (0)
Peter Herres	< 5 (-)	< 5 (-)	20-25 (-)
Schloss Wachenheim	< 5 (-5)	< 5 (0)	15-20 (0)
Rüdesheimer Weinkellerei	< 5 (0)	-	5-10 (0)

Leading supplier in gray.

Market share category changes 2008-2010 in percentage points in brackets.

Source: own elaboration based on BKartA (2014), p. 179.

The supply side of sparkling wine for procurements is also highly concentrated, as table 6 shows [BKartA, 2014, p. 179]. With respect to food retail distribution channels, the entire market is dominated by one supplier, Rotkäppchen-Mumm with a market share of 40-45% in sparkling wine, and a potential to increase by 5% points a year. The two next largest competitors, Henkell and Freixenet, hold substantially smaller shares (15–20%), and the remaining firms hold only minor market shares. When considering the supply of sparkling wine using all measured concentration ratios (CR<sub>1</sub>, CR<sub>2</sub> and CR<sub>3</sub>) the incumbents hold a dominant market position, signaling their overwhelming market power. If manufacturer brands are considered, the leading producer, Rotkäppchen-Mumm, holds an even larger share of 50-55%, whereas the share of Henkell declined to 10-15%. Here, as in the entire market, the supply side of manufacturer brands is mainly concentrated among three large enterprises with one leading producer, which not only dominates the field but was also able to expand its position. Hence, the supply side of manufacturer brands shows for all delineations of leading enterprises concentration ratios not only above the threshold of dominance but also above that of the entire market. In contrast, regarding retailer brand supply another market constellation can be stated: the supplier structure of retail brands is different from manufacturer brands, absent the leading player Rotkäppchen-Mumm, which concentrates only on higher revenue margins, and with stronger position of smaller suppliers, with lower margin but nevertheless sufficient large markets for their businesses. The leaders are Henkell, with the largest (30-35%) and fastest growing market share, followed by Peter Herres with 20-25%, Freixenet and Schloss Wachenheim (15-20% each) and Rüdesheimer Weinkellere,, with a 5-10% share. Some suppliers, like Henkell, Schloss Wachenheim and especially Peter Herres, focus more on retailer brands (as indicated by their market shares). The winery Rüdesheimer Weinkellerei uses only retail brands, which is not the case for Rotkäppchen-Mumm. For the group of leading enterprises in retailer brands the market concentration is CR, and CR, (CR,

refers to a dominant market power level), which is smaller than for manufacturer brands, when considering  $\mathrm{CR}_5$ , an even larger concentration is visible. Hence, the existing market concentration is large enough to develop substantial market power on the supply side and induce strong interdependences between demand and supply side on the procurement market. Finally, in the sparkling wine procurement market three to four major retailers are faced with three to four major suppliers, which creates intensive market interactions and interdependences.

#### Manufacturer and Retailer Brands in Roasted Coffee

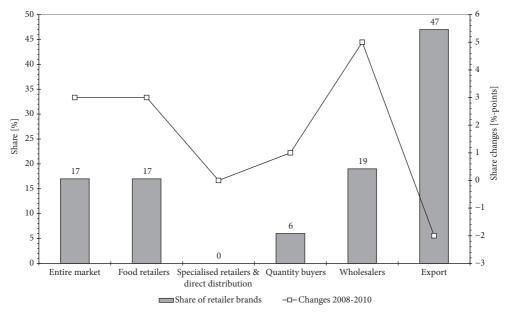
German roasted coffee retail sales are also dominated by strong manufacturer brands. They account for 83% of total earnings, leaving little room for other brands in this market (17% as indicated by Figure 9 on left scale) [BKartA, 2014, p. 208]. Food retailers exhibit a similar manufacturer-retailer brand market ratio. Export distribution channels maintain a 47% share of retail brands. As in the case of sparkling wine, specialized retailers and direct distributors reveal that the German coffee market is characterized by a high concentration of manufacturer brands, whereas quantity buyers (similar to the observed wine pattern), represent a marginal share of retail brands (6%). This suggests the major role of strong manufacturer brands in the coffee market (with the exception of export), in which retail brands account for nearly half of market volume. In 2008–2010, retail brands shares in all distribution channels (with the exception of export and specialized retailers and direct distribution) increased (right scale) [BKartA, 2014, p. 208], particularly at the wholesale level (by 5%-points).

When the market shares of leading retailers of roasted coffee are considered, three large firms, Edeka, Rewe and the Schwarz Gruppe, have market shares of between 15–20%, (see Table 7) [BKartA, 2014, p. 209].

The two other large retailers, Metro and Aldi, hold only small shares of the market. For Aldi this small share results from its own large production facilities, which make the company independent from external suppliers and their market power. Of all retailers, only Rewe improved its procurement position. All other retailers shares remained constant or shrunk in 2008–2010 and the remaining retailers providing manufacturer brands maintained constant aggregated shares of 15–20%. In manufacturer brand procurement leading Edeka, reached a share of 15–20%, whereas Rewe and Schwarz Gruppe each secured 10–15%. The share of the remaining retailer, Metro, was below 5%, whereas Aldi was absent among sellers and buyers of manufacturer brands in roasted coffee. However, Aldi still conducts 5–10% of the purchases of retail brands coffee, adding to its own substantial own in house production. The largest retailer on the demand side, Schwarz Gruppe, reached a share of 20–25% of procurements, followed by Rewe with 15–20% and Edeka with 10–15%. As a result, in manufacturer brand procurements the demand side is represented by the three large retailers with nearly equal shares. In retailer brands, demand is visibly more concentrated in the group of the largest three retailers, showing

a stepwise graduated market share structure. These three are followed by Aldi, a smaller but important player for purposes of supply diversification and reduction of market concentration. Thus, the degree of market concentration in retailer brands procurements and market power in demand is high and increasing in 2008–2010 after the addition of Edeka and Rewe. However, from a competition policy perspective neither leading firms on the demand side of roasted coffee nor manufacturers of retailer brands reach concentration levels granting them dominant market positions.

FIGURE 9. Share of retailer brands in total earnings (left scale) [%] in retail trade of roasted coffee in Germany in 2010 and its dynamics (right scale) [%-points] by distribution channels



Source: own elaboration based on BKartA (2014), p. 208.

The supply side for procurements of roasted coffee reveals a larger concentration, as indicated in Table 8. [BKartA, 2014, p. 215].

The German food retail distribution channel is led by a single large supplier, Kraft Foods/Mondelez, with a total market share of 20–25% in roasted coffee, which could increase its share by 5%-points in 2008–2010, followed by two competitors Allois Dallmayr and Melitta Kaffee with shares of 15–20% each. The remaining smaller suppliers include J.J. Darboven with 10–15% share and Gebr. Westhoff and Sara Lee, each with 5–10% market share. In the last years the three largest supplier increased their shares by 5%-points,

and the concentration ratio for the three largest enterprises  $CR_3$  evidences their dominant market position, whereas the  $CR_5$  indicates "nearly dominance level".

TABLE 7. Market shares of retailers by manufacturer and retailer brands of roasted coffee in Germany in 2010 [%]

Retailer	Entire market share	Share in manufacturer brands	Share in retailer brands
Edeka	15-20 (0)	15-20 (0)	10-15 (+5)
Rewe	15-20 (+5)	10-15 (0)	15-20 (+5)
Schwarz Gruppe	15-20 (0)	10-15 (-5)	20-25 (0)
Metro	< 5 (-5)	< 5 (-5)	< 5 (0)
Aldi	< 1 (-4)	-	5-10 (0)
Remaining retailers	15-20 (0)	15-20 (0)	5-10 (0)

Leading enterprise gray.

Market shares for roasted coffee without Tschibo (commission business), Aldi without production of own facilities. Market share category changes 2008–2010 in percentage points in brackets.

Source: own elaboration based on BKartA (2014), p. 209.

TABLE 8. Market shares of suppliers in roasted coffee food retail in Germany in 2010 by manufacturer and retailer brands [%]

Enterprise	Entire market share	Share in manufacturer brands	Share in retailer brands
Allois Dallmayr	15-20 (+5)	15-20 (+5)	20-25 (0)
Kraft Foods/Mondelez	20-25 (+5)	25-30 (+5)	-
Melitta Kaffee	15-20 (+5)	20-25 (+5)	< 1 (-)
J.J. Darboven	10-15 (0)	10-15 (0)	5-10 (0)
Gebr. Westhoff	5-10 (0)	-	35-40 (-10)
Sara Lee	5-10 (+5)	5-10 (0)	-
Luigi Lavazza	< 5 (0)	< 5 (0)	-
Hubert Tempelmann	< 5 (0)	< 1 (0)	20-25 (+10)

Leading supplier gray.

Market share category changes 2008-2010 in percentage points in brackets.

Source: own elaboration based on BKartA (2014), p. 215 [data available for 2010].

This market concentration increases in manufacturer brands. Kraft Foods/Mondelez is the largest supplier of manufacturer brands in roasted coffee products, with a market share of 25–30% and Melitta Kaffee second with a 20–25% share. Both companies have experiencing rising trends, and market concentration of manufacturer brands is substantially higher than in the entire market. Concentration ratios for the three and five largest

suppliers are far beyond the market dominance threshold of competition policy. This is ameliorated by the actions of the supplier Gebr. Westhoff, which is not engaged in production and therefore does not deliver manufacturer brands, reducing market diversification. Gebr. Westhoff is the leading supplier of coffee retail brands in the German market with a market share of 35-40%, followed by the next largest supplier, Allois Dallmayr with 20-25% market share. Other producers, like Kraft Foods/Mondelez, Sara Lee or Luigi Lavazza, do not supply retail brands at all, which makes them pure manufacturer brand suppliers. Others supply only small quantities, as is the case of J.J. Darboven or Melitta Kaffee. This specialization in one of two market segments in roasted coffee is followed by Hubert Tempelmann, the second "hidden champion" in coffee products, which delivers only marginal amounts of manufacturer brands but maintains a 20-25% market share in retail brands. Hubert Tempelmann increased its share by 10%-points in 2008-2010, whereas the leading supplier Gebr. Westhoff recorded losses of shares of equal size. When comparing manufacturer brands with retailer brands in roasted coffee a substantially larger market concentration emerges in the latter. Market concentration of retailer brand products exceeds the level of market dominance CR<sub>3</sub> and CR<sub>5</sub> and nearing the CR<sub>1</sub>. This implies that the supply of roasted coffee is relatively diversified among six suppliers, of which four deliver substantial shares of that market. In manufacturer brands the group of large suppliers consists of five competitors. In retailer brands the market concentration is substantially higher, with four large suppliers of which three deliver at least 75% of the market. As in the case of sparkling wine, this market structure is leading to intensive interdependences for most incumbents: three or four large retailers are faced with four to five large suppliers, allowing both parties to exercise their substantial market power in the coffee market and squeeze out smaller competitors en passant via realization of advantageous price conditions in procurements or sales. Such market structure limits the number of partners for the major players to cooperate with. Large retailers, like Aldi with its roasting houses or Edeka, reduce this problem by forcing their vertical integration, and covering a broad spectrum of food supply through their own production.

## **Conclusions**

The German food retail market is dominated by a narrow oligopoly of leading domestic retailers, Edeka, the Schwarz Gruppe, Rewe and Aldi, which not only drive price competition processes but also realign their market position via strong efforts in upwards-integration and major expansion of their retailer brand assortments. In 2014 the entire market share of retail brands reached 41.3%. Most retailers aim for comprehensive coverage of the customer market, entering thereby into traditional market segments of manufacturer brands, what intensifies competition between suppliers and retailers. In 2010 retailer

brand market shares varied between 59.7% and 3.0% with an average of 42.8% among food products. Consequently, the increased retailer brand share together with their overwhelming demand share in procurements allows large retailers to exercise substantial market power. The average share of entire procurements in foods of the leading oligopoly reached 84%, in manufacturer brands 73.2% and 88.9%, in retailer brands, which from perspective of competition policy indicates a dominant market position in each segment. If market power in procurements is leveraged by retailers via better conditions into the customer market, smaller competitors will be gradually squeezed out of the market. Especially in retail brands large retailers are enabled to increase their market power, thereby using it to widen the gap between them and smaller competitors. The potential of retail brands seem to support stronger market positions of large incumbents even to a higher degree than in manufacturer brands. The increasing emergence of retail brands in food retail creates an opportunity for large enterprises to further increase their market power. The ongoing increasing market concentration in German food retail can be fostered by a suitable trademark policies applied to large retailers with sufficient financial resources to provide a specific assortment of retail brands. This process may have negative consequences for consumers, dependent suppliers in the value chain, and smaller competitors in retail, who are forced into specialization strategies. These general preliminary results of dominating market power are confirmed by an analysis of the market segments of sparkling wine and roasted coffee, where an intensive market concentration on the supplier side is found. A narrow oligopoly of retailers is faced with narrow oligopolies of mostly specialized suppliers in particular market segments, leading to restricted space of operation for both sides. This holds true especially where dominant suppliers of manufacturer brands also hold large market shares in retailer brands and retailers do not have sufficient supply alternatives. To escape this procurement prisoner-dilemma retailers engage intensively in upwards-integration to install their own large production facilities. The prevalence of retailer brands can therefore be interpreted as an instrument to force competition processes at both seller and buyer markets and a strategy to avoid intensive market power in procurements.

Despite this ongoing process of rebalancing market power in seller and buyer markets German food retailing providing manufacturer brands and more diversified retailer brands does not reveal serious market imbalances in general. However, the food retail market concentrations for procurements of manufacturer and retail brands are above the level of market dominance of the leading retailer oligopoly. In addition, in selected food products the large retailers enjoy growing market power in retailer brands, all under permanent supervision of German competition authorities whose role is to prevent the misuse of dominant market positions [BKartA, 2014, Monopolkommission, 2012].

**Notes** 

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<sup>2</sup> The terms "manufacturer brand"and "retailer brand" are not uniformly used in economic literature. For the first also producer brand is used in numerous reports, whereas for the latter private label, own label or store brands is widely common.

- <sup>3</sup> Narrow oligopolies are from the perspective of competition policy according the concept of workable competition by Kantzenbach [1967] considered to be characterised by over-optimal interdependencies of incumbents, leading to 1. non-functional power struggles (oligopolistic wars) or 2. factual restriction of competition due to parallel market behaviour [Schmidt, 2005, p. 12]. Based on considerations about a causal relation of market structure and expected intensity of market competition hence a wide oligopoly would be regarded to induce an optimal competition level.
- Market power is regarded in competition policy as an important indicator for the restriction of the necessary "material freedom of operation" on markets for economic subjects [Schmidt, 2005, p. 30]. In the theory of competition policy two cases of horizontal market power are distinguished: 1. traditional single power concepts (for monopolies, partial monopolies or dominant positions of singular enterprises) and, for the analysis of market power in the German food retail market for the most cases more relevant, 2. joint power concepts with a focus on joint profit maximization on basis of tacit collusion of enterprise groups [Schmidt, 2005, p. 80]. The German competition law codifies in § 18 no. 4-6 GWB [Gesetz gegen Wettbewerbsbeschränkungen] a general assumption of market power in the sense of market dominance for the cases of one dominant enterprise with a minimum market share of 40% (CR, = 40%), of three or less enterprises with a share of 50% (CR<sub>2</sub> = 50%) and five or less enterprises with a share of 66.67%  $(CR_s = 66.67\%)$ . A dominant enterprise is characterized by a situation of 1. lack of competitors, 2. missing competition pressure or 3. a dominant position in comparison with its competitors (§ 18 no. 1 GWB). In § 19 GWB the legislator codifies consequently a ban on the misuse of dominant market positions from enterprises, what underlines the importance of the preservation of market competition by competition policy. With respect to the case of our analysis it is essential to note that the legislator formulates in §18 no. 4-6 general assumptions of market dominance, which can be refuted by affected enterprises with invalidating arguments. Therefore also for all explanations of market power or even market dominance with market shares in this contribution the assumption character is holding based on legal and economic grounds.

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