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The German juice market

Costs still on the rise

The juice industry is being strongly affected by increasing costs, mainly as a result of rising costs for raw materials and semi-finished products. Rising energy costs and direct or indirect regional factors, like road toll, packaging regulation or VAT increase, are also having an impact, especially since the necessary consumer price increases for juice and nectar have not yet fully been implemented by retailers. This is putting margins under pressure and causing financial problems for smaller producers.

The structure of the German juice industry

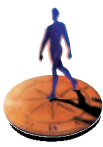
Top 10 hold 60% market share

The German juice industry is rather fragmented: apart from a few top players, the German market is dominated by a huge number of smaller regional producers. The top ten juice companies have a market share in value of 60%. The remaining 40% of the industry turnover is subdivided into more than 400 other companies, so there is still room for consolidation. What is noticeable is that half of the top ten companies, like Emig, Riha and Stute, are strong private label players (Figure 1). Riha, the number two, for instance, produces under the "Wesergold" brand for top German discounter Aldi. The companies belonging to Refresco are also settled among the rather low-price producers. In the branded segment Eckes-Granini, Valensina, Punica, Tucano and Albi are top players. Eckes-Granini is the largest juice company in Germany if the international sales are included.

Figure 1 The top 10 fruit juice and nectar producers in Germany (2005)

Name	Total turnover EUR million	Turnover in domestic market EUR million	Sales million litres	Sales in domestic market EUR million	Focus
1 Emig (Gerber)	338*	203	805	483	private label
2 Riha Richard Hartinger	332.5	238.6	828.1	531	private label
3 Stute	255*	153	670*	536*	private label
4 Eckes-Granini	252*	252	324	324	branded
5 Krings (Refresco)	231	162	483	333	retail brands, co-producer for A-brands
6 Valensina/ Mocken group	150*	120	270*	216*	branded
7 Punica	140*	140*	137.9	137.9	branded
8 Hardthof (Refresco)	131	94	327	251	private label
9 Albi	107*	107*	155	150	branded
10 Tucano	100	100	93	93	branded

* estimated
Source: Rabobank, 2006, based on Lebensmittelzeitung 16, 21.04.2006, page 017, 2006/Dr. Kai Kelch, 2006

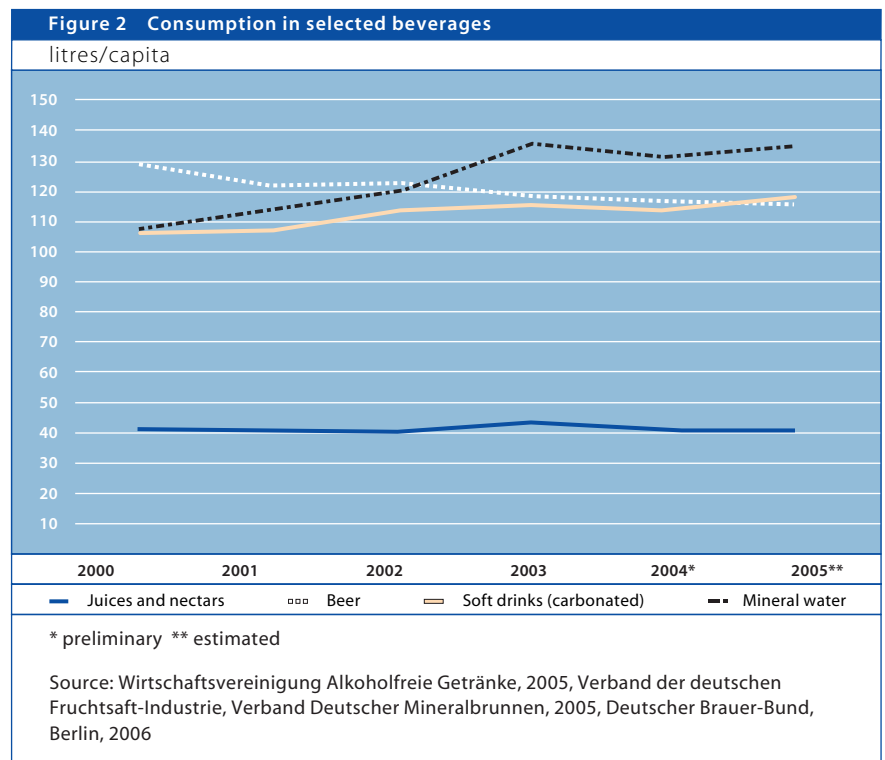


The German juice market

The demand trends for juice

Consumption is on the decline

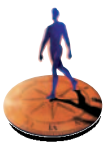
Following a good year for the German juice industry in 2003, when the very hot summer pushed consumption up to 42 litres per capita, figures fell to 40.3 litres per capita in 2004. Preliminary estimates for 2005 suggest it will have fallen to 40 litres or even lower, with consumption also falling in other classic segments of the beverages industry (Figure 2). Yet, the overall consumption of non-alcoholic beverages increased 1.5% up to 289 litres per capita in 2005, mainly due to a slight rise in soft drinks and waters.



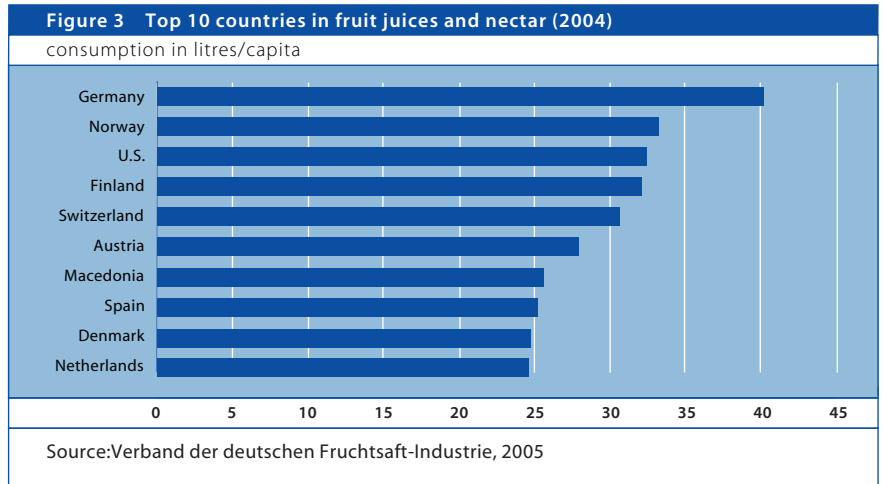
Germany is juice consumption leader

Volumes of fruit-content beverages fell by 8.1% in the first nine months of 2005¹. Nevertheless, Germany still leads the world in the consumption of fruit juices and nectars, followed by Norway and the United States (U.S.) (Figure 3).

¹ According to Gesellschaft für Konsumforschung GfK



The German juice market

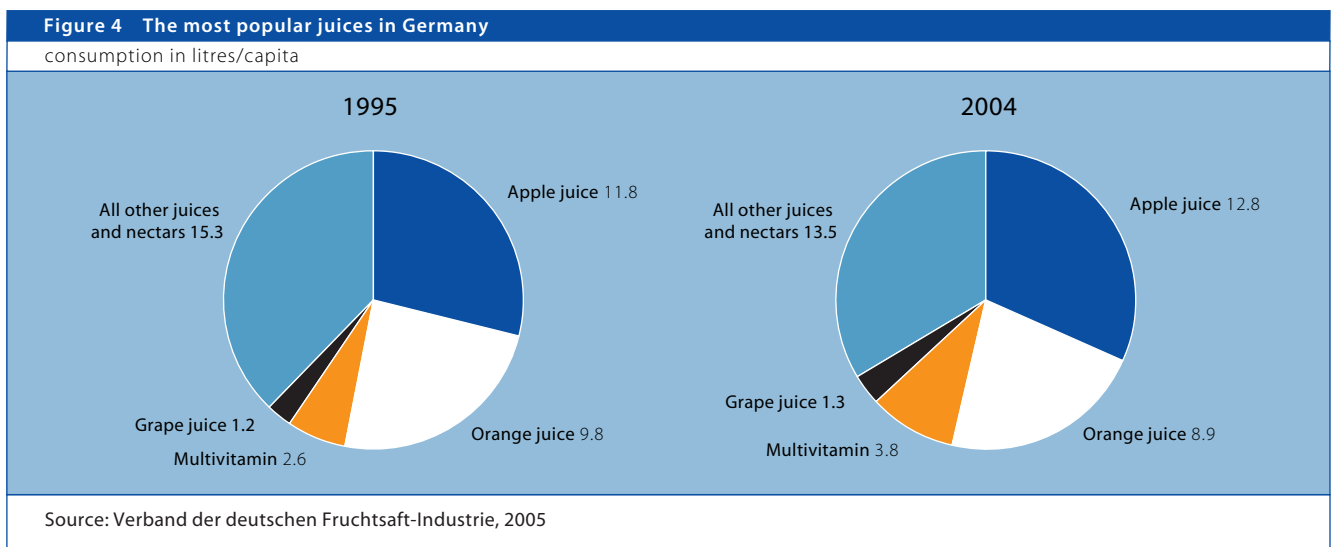


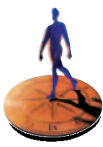
German juice industry failed to meet targets in 2005

Germany is one of the main producers of juice within the European Union (EU). In 2004, the turnover of the German juice industry (approximately EUR 3.45 billion) was down 2.8% from the previous year, with 2005 facing again a decline of 2.6%. Dramatically rising costs in combination with declining consumption hit the industry hard in 2005. Industrial production of juice decreased 9.7% to 3.41 billion litres. In the first half of 2005, the sales volume of fruit juice declined by 1.8% and nectars even more, by 9.3%. Only mixes of fruit juice with sparkling mineral water ("Schorlen") and near-water beverages containing fruit juice achieved growth rates in both volume and value terms, as consumer trends favoured products with added value.

Consumer preferences

Germans favour apple juice. More than one third of their total juice consumption is apple juice, followed by orange juice (21%), multivitamin (9.4%) and grape juice (3.2%), see Figure 4. Recently, a trend has emerged towards mild juices with less acidity, particularly mild orange juice, whose sales volume more than doubled during the first half of 2005 compared to the same period in 2004.





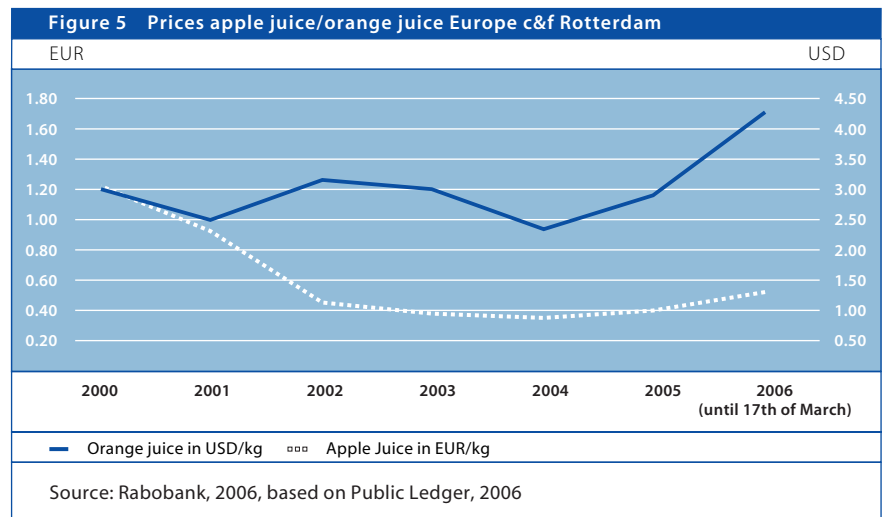
The German juice market

Cost concerns – raw material

Raw material prices are at a historical high

Prices for apple juice concentrate (AJC) and frozen concentrated orange juice (FCOJ) do not correlate, as they are the result of different supply and demand equations. Nevertheless, some similarities seem to occur, in particular on the demand side, as these juices are substitutes and experience the same price and margin pressure exerted by the retail chains (Figure 5).

Since the most favoured juices in Germany are mainly produced from concentrate, about 80% of which is imported, the strong rise in the cost of these raw materials has hit the industry very hard. By contrast, retail prices have been falling for years in Germany: consumer prices for juices and nectars are at very low levels.



Apple harvest down in Germany

The apple harvest for cider apples and backyard apples was poor in 2005. This led to both an increase in prices and the necessity to import more concentrate to cover industry demand. In fact, the pressed juice from German apples and import apples resulted in the production of 400 million litres in 2005, which was a decline of 20% from the 2003 volume of 500 million litres. This made it necessary to import apple juice, in addition to the fruit for pressing.

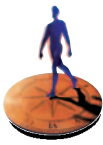
China is one of the main AJC exporters

Along with its own production Germany imports AJC, mainly from Poland and China. China is the world's top producer of AJC at an estimated 45% of total world production and 35% of total global exports. In 2004, China produced 550,000 tonnes of AJC, with an estimated 600,000 tonnes for 2005. However, China is facing a shortage of apples and thus of AJC for the current season. China attributes this condition to severe frost early in the season while other sources claim flooding as the cause of the damage. Some 80% of China's AJC is produced by three to four big companies and while the major export destination is the U.S., about 15% of that is exported to Europe, including Germany. However, China produces predominantly low-acid juice, which does not meet German taste and regulation standards, which stipulate the minimum acidity level for "drinking juice" at 3.5%.



The German juice market

Germany prefers to purchase AJC from Poland	Despite Chinese AJC being cheaper than its Polish counterpart, the blending required to meet German acidity levels actually makes it more expensive. Germany is thus increasingly importing AJC with medium to high acid content from Poland. The Polish harvest volumes for 2004/2005 were better than expected. Consequently the AJC from Poland was competitively priced and exports went up. In the 2005/2006 season, however, Polish AJC has also fallen below acid content requirements, which has driven up prices for the raw material and semi-finished products from Poland. The bad harvest and the shortage of high acid AJC in 2005/2006 generate price volatility in much the same way as FCOJ. Germany, however, also experiences disadvantages with respect to the low cost price in Poland, as both countries compete with their fruit juices in the same export markets.
FCOJ comes mainly from Brazil	The world's key FCOJ producing countries are the U.S. and Brazil. About 70% of the U.S. (Florida) production is for domestic consumption whereas approximately 95% of Brazil's FCOJ is exported, mainly to Europe. EU countries like Spain and Italy also produce orange juice concentrate but the quality and production volume are less than Brazil's. Hence Spanish and Italian concentrate is mainly used as ingredient for the food and mixed drinks industry. Germany purchases FCOJ mostly from Brazil (via the Netherlands or Belgium), whereas juice not from concentrate (NFC) is mainly obtained from southern European countries like Spain, Portugal or even Greece.
NFC coming in from Brazil?	Brazil has developed specially designed ships for NFC transport to the U.S. which is actually price competitive with juice from Florida. It could be expected that Brazil is weighing the cost/benefit of shipping NFC to the EU as well.
Global demand for orange juice concentrate will grow	The harvest in Brazil seems to have been excellent this year, but the estimated increase in global supply of around 2.8% will not cover the expected growth of 3.3% in world demand. Weather experts expect the hurricanes affecting Florida to become stronger and more frequent in the years ahead. This will make U.S. demand for orange juice concentrate shift strongly from the domestic supply to Brazil. At the same time a shift in consumer habits in China and Eastern Europe towards oranges and orange juice consumption will trigger growth rates of 5% to 6% in these regions, outstripping those in Western Europe (around 1.5%).
Oligopoly in Brazil	There are just four main producers of FCOJ in Brazil: Citrosuco, Cutrale, Louis Dreyfus (including Coinbra-Frutesp) and Citrovita. At the beginning of 2005 Citrusco and Cutrale both acquired the Brazilian orange activities of former third-ranked player in the market, Cargill. Louis Dreyfus recently leased a plant of Citrus Kiki, which had a reputation for stock dumping, with the option to buy in 2007. This shows that consolidation is taking place at both ends of the juice industry: the raw material side on the one hand and the processing industry on the other.
Rising FCOJ prices	Growing global demand may result in a shortage in orange juice concentrate within the coming years, and may cause prices to go up. The Brazilian industry has already taken the lead here. Most recently Brazilian FCOJ suppliers announced that they need to break open the contracts, which are based on prices between USD 1,200 to 1,400 per tonne, to increase these to approximately USD 1,800 per tonne. Juice bottlers fear that they cannot swallow such price hikes under the current competitive market circumstances, but they have no real alternative. The current high prices for orange juice concentrate from Brazil, despite easing since March 2006, are likely to rise even more due to increasing world demand. The existing Brazilian oligopoly can dictate prices. Apparently, increasing demand in some markets allow for such higher prices, notwithstanding the huge price and margins squeeze in the important German market.



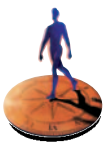
The German juice market

The U.S. futures market is more related to the specifics of the U.S. market than the competitive European market, and therefore prices there tend to be higher than world market levels. Nevertheless, the New York futures prices have an indirect influence on the Brazilian prices, especially when the U.S. industry is to buy more on the world market for domestic consumption. An additional factor influencing prices is the speculative influence of hedge funds in the commodity market. According to recent trade figures Mexico appears to play an increasing role as exporter of FCOJ, currently mainly to the U.S. which trade is expected to increase as FCOJ will have duty free access to the U.S. under NAFTA in 2008. In future this might also be interesting for the European market.

Weather impacts global production...	The hurricane season in Florida significantly affects the U.S. harvest. The indirect impact seems to be even larger than the direct damage, with diseases like canker spreading over whole plantations. Experts expect a loss in orange juice concentrate in the future due to increased hurricane damage in Florida. Fruit from Europe or Germany can be severely affected by frost, cold and rain in terms of both quantity and quality.
... as well as demand	The weather also affects consumer habits. Non-alcoholic beverages, especially soft drinks, mineral water and juices are consumed throughout the whole year, but seasonal influences are certainly important. During a hot and dry summer consumption increases.
Other juices are differently affected	The volatility in concentrate prices cuts across the whole industry. Pineapple juice from Thailand, for instance, has been one of the more expensive juices for years. However, since the autumn of 2005 the price is at an average of 1.17 USD/kg (c&f main European ports) in 2006, even below the dramatically increased FCOJ and AJC prices.

Cost concerns – other related items

Other impacts on costs	In addition to raw material cost increases, other aspects have an impact on prices for producers. These are packaging regulations, an intended increase in VAT, rising energy prices, the heavy vehicle toll introduced in 2005, currency exchange rate developments and the difficult price negotiations with the retail trade, especially the very dominant discounters.
VAT increases	The newly elected German government recently decided to increase the VAT from its current 16% up to 19% effective from 1 January 2007. VAT is only to be paid by the end-consumer and not the producer due to input tax deduction. Despite this and the fact that VAT on food and agricultural products remains at the low rate of 7%, it will have an indirect impact on costs for the industry. Distribution costs will increase since VAT will be levied on both fuel directly as well as on the additional mineral oil tax. Investments in modernising and machinery can also be deducted against input tax but have to be paid beforehand. The VAT increase will certainly have an impact on the purchasing power of the consumers.
Increasing energy costs	One of the main inflationary factors is the energy price, which has increased very strongly throughout the past months. This is largely related to the strong rise in the crude oil price, which has more than doubled in the past five years, by more than 43% alone from 2004 to 2005. External political factors like the nuclear conflict with Iran may drive oil prices up even more. In Germany the gas price is coupled to the oil price and therefore increases as well dramatically. High energy costs are affecting juice producers also all through the chain: from transportation (fuel) through production to packaging.



The German juice market

Road toll in Germany...

In 2005, toll for heavy vehicles on motorways was established². Since the toll was implemented, a huge number of lorries have opted to re-route to country roads and lanes. Due to this, discussions are taking place about the possibility of collecting toll for lorries on some highly frequented country roads as well. The toll increases transportation costs for the industry. The juice industry is, like many others, hit double by having to cope not only with the transportation of raw material, but also the distribution to retailers and customers.

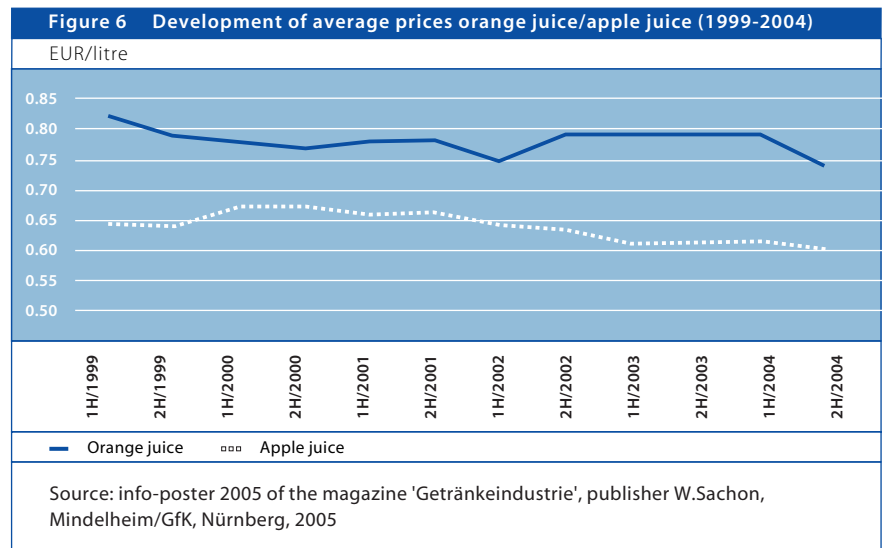
...leads to decentralisation

The rise in transportation costs is leading to decentralising strategies, with juice producers tending to produce closer to their markets. Eckes-Granini, for instance, sees growth potential in Eastern Europe in the long run and has incorporated this in its business strategy.

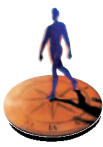
Consumer price trends

Recent retail price increase for juice is still not enough

It is a tough market in which to compete in terms of price. The current and anticipated cost increases cannot be covered by increases in sales prices, even though the discounter Aldi recently increased its prices for orange juice by EUR 0.06/litre, but that was still not enough. Both market experts and juice producers alike have stated in recent months that at least EUR 0.08 to 0.10/litre are necessary. The current dramatic development is even forcing the juice industry to negotiate price increases of EUR 0.16/litre, but price negotiations between suppliers and retailers are turning out to be very difficult. Consumer prices for juice have been low for a long time (Figure 6).



² Depending on the size and weight the toll is between EUR 0.09 and 0.14/km



The German juice market

Discounter has the strongest market share

The discounters and private labels have a very strong market share in Germany, which enables them to exert pressure on prices. The market share of discounters in non-alcoholic beverages stands at 40%, and is increasing. For fruit juices this is even 64% of the total volume sales of 3.3 million litres, of which Aldi alone holds 28%. In other words, juice has become subject to the most price-sensitive segment of the German retail environment.

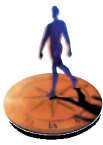


The role of the packaging regulation

The German regulation on packaging

Germany has confusing regulations with respect to packaging. A few years ago the German government decided to amend the packaging regulation. The first step was the launch of a deposit system for non-returnable packaging for beverages in 2003, the so-called "Einweg-Pfand", in addition to the deposit system for returnable bottles ("Mehrweg-Pfand"), for bottles to be collected by the beverage companies for re-use. Also for the non-returnable bottles, consumers had to pay a deposit when they bought these to cover the costs of waste. They could get their deposit back when they returned the non-returnable packing to the retailer, who then had to take care of the waste. This has generated many so-called "isolated applications" ("Insel-Lösungen"), implemented by many retailers and discounters. This meant that the customer could only return the one-way bottles to the outlet they purchased from and, in turn, this led to a lot of criticism from both the politics and the public.

The next step is the removal of all isolated applications by implementing a general mandatory deposit for one-way bottles, effective as of 1 May 2006, enabling the consumer to return each bottle or can at any retail or discount store throughout Germany that sells them. Juice is only affected indirectly since fruit juice in one-way packaging is generally deposit-free, in contrast to mineral water, soft drinks and mixes. But the whole beverages industry is focusing more and more on PET packaging.



The German juice market

PET is also a growing segment in juice packaging	One-way packaging (PET, cartons, bags, glass) is a very strongly growing segment, with a market share of approximately 80% to 85%. Returnable bottles (glass and PEN) are losing market share, currently 15% to 20% in juice and nectar. In retail there is a strong tendency away from the former growing carton segment to PET, also in sizes over 1 litre. In 2001, the market share of PET in fruit juice packaging was about 3%, in 2004 it was already 10%. Cartons have lost approximately 10% in sales volume although many producers launched cartons with closing tabs and smaller sizes to meet consumer demand. Some retailers already react to the trend and have started to de-list several types of carton packaging.
Not all juice sorts have switched to PET yet	Currently the main juice sorts that have been switched to PET are basically the most favoured sorts: apple, orange and multivitamin juice, besides other fruit-containing beverages like combinations, near-water and healthy drinks. One reason is that there may be some juice sorts that are rather light-sensitive. Furthermore, many fruit nectars or juices look less attractive in PET to consumers. Size also plays an important role: according to one juice producer, consumers would buy a 1-litre PET of apple or orange juice, but would not buy the same size PET of red or blackcurrant juice or grape juice, since both shelf-life and consumption patterns for these juices are different.
PET costs increase for producers	The market situation has changed: due to the shift to PET in retail, juice producers have to react and switch to PET bottling plants. Riha, for instance, has already installed four cold-aseptic bottling plants and is planning even more in 2006. Many have already done so, but there are still some producers that have not. They might experience problems because necessary investments are amounting around EUR 10–12 million.
The trend to cold-aseptic bottling	Cold-aseptic bottling-systems are milder to products than the warm-aseptic, which is advantageous particularly for sensitive beverages like fruit juices and nectars. An advantage over dairies that have warm-aseptic bottling is the possibility to also fill whey drinks that contain fruit juice. This makes the producer more flexible to react to the market trends and consumer demands.
Slight chances for PEN	PET (one-way) packaging is expected to grow by double-digit figures within the next few years. Moreover, some juice players do not see big growth chances in PET returnable bottles (PEN), because it would be much too cost-intensive. The main difficulty is seen in getting the bottles back. So far there is just one player in Germany, Becker, filling PEN.

Outlook

Juices and fruit based beverages are actually trendy, because they are nutritional. There is rising demand for beverages with added value, near-water, combinations of juice and vitamins, dietary fibres, whey, etc.. In 2005, the volume sales of energy, sports and ACE drinks (non-carbonated) for example, grew by 7%. Fruit concentrates are becoming more and more relevant as an ingredient for such combinations and innovations. The trend to freshness might also be relevant for the future: NFC fetches higher prices and yields higher margins.

In the shorter term, producers of non-alcoholic beverages, including the juice industry, are counting on the World Cup Soccer Championship in Germany in the summer of 2006, which is expected to bring an additional increase in consumption.



The German juice market

Due to changes in taste and food habits the global demand for orange juice is expected to grow by approximately 3% to 4% in the longer term. This might lead to a shortage in orange juice concentrate in the future, especially if demand increases in China and the hurricane season in Florida gets worse within the coming years.

The shortage of high-acid AJC is continuing in China as well as in Poland – this is expected to lead to a further increase in spot-market prices this summer. At the same time there is a trend towards mild juices, particularly mild orange juices, evident in Germany. Concentrate with low-acidity and high-acidity levels can be found on the market. Though experts regard the low-acid concentrate as lower quality, however, it seems to meet a trend in consumer demand.

In the future there will be more inflationary factors in the domestic market: the planned VAT increase in 2007 and rising energy costs will impact the whole cycle including production and transportation costs. Rising costs in the plastics packaging industry³ will impact the production of PET packaging. The planned VAT increase might also lead to an investment boom in filling and bottling systems in 2006 to avoid such higher taxes.

Considering the way prices are heading, the trend of reducing costs by decentralising, bringing production nearer the markets, will continue. Eastern Europe has plenty of growth potential, notably in AJC – at least in the long run.

Some experts expect an increase of about 30% in prices for raw material and semi-finished products, but producers question whether this is feasible, given the current market circumstances. Nevertheless, an increase in consumer prices for juice is inevitable if the industry is to avoid a shake-out.

Production is becoming increasingly cost-intensive due to legal standards like quality control, process control, traceability, filling conditions and investment required in innovations. Pressure on the industry is increasing and includes increasing costs of raw material, due to bad harvests, as well as growing international competition and consolidation, shrinking margins and additional inflationary factors. The maintenance of margins will be a challenge.

For healthy products consumers might be willing to accept price increases to some degree. Few consumers would even notice whether the orange juice costs EUR 0.10/litre more, neither in the low-priced nor the branded segment. In price negotiations the retailer argues, however, that the consumer is not content with price increases. Retailers themselves want to offer goods for the lowest prices in the market, given the strong impact of benchmark prices of the discount retailers.

The key problem is that juice has become a commodity, with too little distinction between the products and the brands. Price has then become the main buying criteria. The industry appears not to benefit from the intrinsic and potential values of juice. While consumers are generally prepared and willing to spend more on products in line with the trend to healthy food, fresher and added-value products, this seems not to be true for juice.

³ According to Industrieverband Kunststoffverpackungen e.V. a short run on raw materials and increasing energy costs are leading to price increases, especially in packaging plastics



The German juice market

The current costs and margin squeeze will no doubt have a serious impact on the industry. Given the relative size of the market entry segment, those producing low-price and private label juices might presume to have the best options. Many of these juices are, however, bottled with the branded juice companies, filling up bottling capacity. In theory such juices could be bottled on a variable cost-plus base. A very good understanding of the cost price seems to be very important. Since the premium of brands over private label juices is generally very low, such calculations may result in some short-term financial relief but provide no basis for company sustainability.

At the other end of the juice spectrum we find many smaller niche players, often producing specific juices such as organic juices, or juices with other special features, as well as local products for the local market. Many of these companies have a fairly loyal customer base, as the products meet their specific requirements.

So who will survive on the longer run? It is likely that at least some smaller and medium-sized producers will struggle, as they may find it increasingly difficult to keep up with the investment requirements demanded to be a market player and maintain margins. This challenge does not exclude the large players. The margins have become so slender that the bottling, and therefore the industry structure, may change in order to save even marginal costs, with the current decentralisation trend as a clear example of this.

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