National report

Poland

Quick scan of the food supply chain dynamics, labelling and certification schemes and policies, rules and regulations in the selected EU country

(DG JRC/IPTS)

November 2005
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Task 2.A

This chapter reports the results of a research about the general configuration of food supply chains in Poland, with special attention to the following ones: cereal products; fruits and vegetables; milk and milk products; meat. The research is focused on the aspects that are in close connection with quality assurance and labelling systems.

The structure of the agro-food system of the country being studied is analysed in a simplified way, by identifying some supply chains based on a horizontal segmentation of the system itself which does not go much into detail. Therefore, the vertically linked subsectors making up the food supply chains being analysed are macro-entities of an aggregated kind, therefore far from being homogeneous from an economic and technical point of view.

Given this limitation, the data on concentration and the information concerning dominance phenomena that will be presented in this chapter should only be considered as useful indicators for the study to be carried out, which, as known, is not meant to achieve antitrust objectives. A scientifically rigorous analysis of concentration and competition phenomena would imply a very detailed horizontal segmentation of the agro-food system, in order to define product markets and geographical markets with similar characteristics. However, this approach would not meet the synthesis requirements of this research.
Section 2.A.1: structure of food supply chain levels and of their components.

Food consumption structure.

In 2004 the Polish population amounted to 38 million people (table 1), of which 53% aged between 15 and 49 years. The over 65-year olds were 13% of the overall population.

Table 1: Polish population and its distribution by age classes

<table>
<thead>
<tr>
<th>Age Classes</th>
<th>% Share of total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of population aged 0 - 14 years</td>
<td>17,2</td>
</tr>
<tr>
<td>Proportion of population aged 15 - 24 years</td>
<td>16,7</td>
</tr>
<tr>
<td>Proportion of population aged 25 - 49 years</td>
<td>36,1</td>
</tr>
<tr>
<td>Proportion of population aged 50 - 64 years</td>
<td>17,0</td>
</tr>
<tr>
<td>Proportion of population aged 65 - 79 years</td>
<td>10,6</td>
</tr>
<tr>
<td>Proportion of population aged 80 years and more</td>
<td>2,4</td>
</tr>
<tr>
<td><strong>Total population (thousands)</strong></td>
<td><strong>38.191</strong></td>
</tr>
</tbody>
</table>

*Source: Eurostat/U.S. Bureau of the Census*

For the year 2005, per capita GDP in Poland is estimated to be less than half of that of the EU-25 (table 2).

Table 2: Gross Domestic Product (GDP*) per capita in Purchasing Power Standards (PPS**), (2005)

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP***</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU (25 countries)</td>
<td>100,0</td>
</tr>
<tr>
<td>EU (15 countries)</td>
<td>108,6</td>
</tr>
<tr>
<td>Euro-zone</td>
<td>105,9</td>
</tr>
<tr>
<td>Euro-zone (12 countries)</td>
<td>105,9</td>
</tr>
<tr>
<td><strong>Poland</strong></td>
<td><strong>48,4</strong></td>
</tr>
</tbody>
</table>

*Source: Eurostat*
In 2003, the share of food (excluding alcoholic beverages) to total family spending was 19.4%, compared to an average of 13.1% in the EU-25 (table 3).

Table 3: Expenditure for food and non-alcoholic beverages (2003)

<table>
<thead>
<tr>
<th>Country</th>
<th>% Share of total household consumption expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU (25 countries)</td>
<td>13,1</td>
</tr>
<tr>
<td>EU (15 countries)</td>
<td>12,8</td>
</tr>
<tr>
<td>Euro-zone</td>
<td>13,7</td>
</tr>
<tr>
<td>Euro-zone (12 countries)</td>
<td>13,7</td>
</tr>
<tr>
<td><strong>Poland</strong></td>
<td><strong>19,4</strong></td>
</tr>
</tbody>
</table>

Source: Eurostat

Overall, the food consumption structure in Poland is typical of a country that is rapidly completing its transition process towards a full Western-type market economy (Ministry of Agriculture and Rural Development, 2004; ICE Varsavia, 2005). Compared to the EU-15, in Poland there is lower consumption of fruit, beef, milk and fish, but higher consumption of pork. Therefore, it can reasonably be suggested that a cheaper nutrition pattern is being followed in Poland than, on average, in the EU-15 (Ministry of Agriculture and Rural Development, 2004). As consequence, we can assume that consumers sensitive to quality assurance and labelling system issues are still a relatively small portion of the population.
Food distribution structure.

As regards the food distribution structure, again the situation in Poland is typical of a transition economy.\(^1\)

The growth of modern shopping centres, supermarkets and hypermarkets in Poland is largely linked to foreign companies that have been investing in this sector for some years now. Presently in Poland there are all the major European wholesale distribution groups. The share of modern distribution channels (hypermartks, supermarkets and discount stores) in retail sales has been increasing quickly from 18% in 1998 to 32% in 2002 (Wilkin, Juchniewicz and Milezarek, 2004).

The data we have available (data from GFK Poland in ICE Varsavia, 2005) show that in December 2003 there were 202 hypermarkets (with German, French, Dutch, Austrian, and Norwegian capital), 924 supermarkets and 1,274 discount stores. In 2002 there were 118 large shopping centres with a selling space of about 2,846,000 sqm, namely a space of 62 sqm every 1000 inhabitants. This figure is lower than the EU-15 average (143.2 sqm), but close to the figures found in the Czech Republic or Hungary.

Evenly distributed across the country (although there are fewer of them in the south-eastern part of the country), shopping centres are mostly located in the outskirts of the cities.

The main operator is Metro group, a food retailing company controlling the Real outlets. In 2003, revenues of Metro consortium in Poland exceeded 2.5 billion Euro.

Ahold Polska is another major operator controlled by the Dutch company Royal Ahold with 191 outlets. Albert supermarkets are the core of this group, with 166 outlets.

The British group, Tesco, controls 69 large shopping centres and is presently the third major operator, with an annual turnover of nearly one billion Euro.

French investments are also rather significant in the retailing sector, with Carrefour which together with its subsidiaries, Champion and Globi, owns 89 large shopping centres.

Generally, the share of food sales for large-scale retailers in Poland is bigger than in the EU-15.

Although their share has been reduced due to the growth of large-scale retailers, traditional retailers are still quite important in Poland, especially as far as food products

\(^1\) The sources of the information reported in this paragraph are ICE Varsavia (2005) for the part on retail distribution and the Ministry of Agriculture and Rural Development (2004) for the part on wholesale distribution.
sales are concerned. Therefore, concentration in food retailing is still far from the levels reached in the majority of the EU-15 countries.
Over a dozen wholesale markets, established in the form of joint stock companies, are presently doing business in Poland. The main shareholders of these companies are the State Treasury, the Agency for Restructuring and Modernisation of Agriculture, traders, agricultural producer groups and other bodies.
Food industry structure.

The following paragraphs will describe the main structural characteristics of the food industry subsectors for each one of the four supply chains being studied.

Cereal products.

In 2003, the overall production of flour & bakery products in Poland (table 4) was channeled to the retail market by 92.7% and to the foodservice market (HoReCa sector) by 7.3%.

<table>
<thead>
<tr>
<th>Volume</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Share</td>
</tr>
<tr>
<td>Retail Market**</td>
<td>4.546,8</td>
</tr>
<tr>
<td>Foodservice Market**</td>
<td>444,5</td>
</tr>
<tr>
<td>Total Market</td>
<td>4.991,3</td>
</tr>
</tbody>
</table>

Source: Food For Thought (FFT)

* All flour & bakery products: products in ready - to - eat form
** Data based on estimated percent split of total market

In 2005, manufacturers’ branded products and artisanal production (table 5) account for the major share of sales of all flour & bakery products (over 93%, with shares of 48.3% and 44.8% respectively). Instead, the share of unbranded goods and distributors’ own label products is very small (less than 7% of sales).

2 The source of information for this paragraph has been Food For Thought (2005a).
Table 5: Branded products Vs Own label (2005)

<table>
<thead>
<tr>
<th></th>
<th>% Share of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturers' branded products</td>
<td>48,3</td>
</tr>
<tr>
<td>Unbranded goods</td>
<td>3,5</td>
</tr>
<tr>
<td>Distributors' own label*</td>
<td>3,4</td>
</tr>
<tr>
<td>Artisanal production**</td>
<td>44,8</td>
</tr>
<tr>
<td>**Total</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: Food For Thought (FFT)

* Retail distributor brands
** Artisanal: craft sales

Figure 1: Branded products Vs Own label

In 2005 the degree of concentration in the flour & bakery products market in Poland is rather limited (table 6), with a CR-3 of 22.3%. Apart from the top-9 firms, there are other 57 industrial firms operating on this market, with a total share of 22.6%, as well as a great number of artisanal firms, with a market share of 44.8%.
Multinational companies account for a significant share of the subsector, with Danone as co-leader (9.1% of the market).

Fruits and vegetables\(^3\).

In 2003, the overall production of fruit & vegetable products in Poland was channeled to (table 7) the retail market by 89.9% and to the foodservice market (HoReCa sector) by 10.1%.

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\(^3\) The source of information for this paragraph has been Food For Thought (2005b).
Table 7: Demand in the all fruits & vegetables products* market (2003)

<table>
<thead>
<tr>
<th></th>
<th>Volume</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.000 tons</td>
<td>% Share</td>
</tr>
<tr>
<td>Retail Market**</td>
<td>3.243,1</td>
<td>87,5</td>
</tr>
<tr>
<td>Foodservice Market**</td>
<td>463,4</td>
<td>12,5</td>
</tr>
<tr>
<td>Total Market</td>
<td>3.706,5</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: Food For Thought (FFT)

* All fruits & vegetables products: products in ready - to - eat form
** Data based on estimated percent split of total market

In 2005, unbranded goods (table 8) account for the major share of fruit & vegetable products (71.4%). Manufacturers’ branded products have a market share of 22.6%, whereas the share of own label products and artisanal products is very small.
Table 8: Branded products Vs Own label (2005)

<table>
<thead>
<tr>
<th></th>
<th>% Share of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturers' branded products</td>
<td>22,6</td>
</tr>
<tr>
<td>Unbranded goods</td>
<td>71,4</td>
</tr>
<tr>
<td>Distributors' own label*</td>
<td>0,6</td>
</tr>
<tr>
<td>Artisanal production**</td>
<td>5,4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100,0</strong></td>
</tr>
</tbody>
</table>

Source: Food For Thought (FFT)

* Retail distributor brands  
** Artisanal: craft sales

In 2005 the degree of concentration in the fruit & vegetable products market in Poland is moderate (table 9), with a CR-3 of 29.2% (however, the only market leader has a 23% share). Apart from the top-9 firms, there are other 24 industrial firms operating on this market, with a total share of 56%, as well as some artisanal firms, with a market share of 5.4%.
Table 9: Concentration in the all fruits & vegetables* market (2005)

<table>
<thead>
<tr>
<th>Holding</th>
<th>% Share</th>
<th>Cumulative % Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fyffes</td>
<td>23,0</td>
<td></td>
</tr>
<tr>
<td>Chiquita</td>
<td>3,7</td>
<td></td>
</tr>
<tr>
<td>Greenery International</td>
<td>2,5</td>
<td></td>
</tr>
<tr>
<td><strong>TOP 3</strong></td>
<td>29,2</td>
<td></td>
</tr>
<tr>
<td>Fresh Del Monte</td>
<td>2,3</td>
<td></td>
</tr>
<tr>
<td>B&amp;K</td>
<td>2,0</td>
<td></td>
</tr>
<tr>
<td>Kresto</td>
<td>1,7</td>
<td></td>
</tr>
<tr>
<td>Steirerobst</td>
<td>1,4</td>
<td></td>
</tr>
<tr>
<td>Bonduelle</td>
<td>1,1</td>
<td></td>
</tr>
<tr>
<td>Heinz</td>
<td>0,8</td>
<td></td>
</tr>
<tr>
<td><strong>TOP 9</strong></td>
<td>38,5</td>
<td></td>
</tr>
<tr>
<td>24 Other companies</td>
<td>56,1</td>
<td></td>
</tr>
<tr>
<td>Artisanal**</td>
<td>5,4</td>
<td><strong>100,0</strong></td>
</tr>
</tbody>
</table>

Source: Food For Thought (FFT)

* All fruits & vegetables products: products in ready - to - eat form

** Artisanal: craft sales

Multinational companies account for a considerable part of the subsector. Fyffes is the market leader with a 23% share. Other multinationals are among the top-9, although with much lower shares (Chiquita, Greenery International, Fresh Del Monte, etc.).

*Milk and milk products*.

In 2003, the overall production of dairy products in Poland (table 10) was channeled to the retail market by 92% and to the foodservice market (HoReCa sector) by 8%.

---

4 The source of information for this paragraph has been Food For Thought (2005c).
Table 10: Demand in the dairy products* market (2003)

<table>
<thead>
<tr>
<th></th>
<th>Volume .000 tons</th>
<th>% Share</th>
<th>Value Euro Millions</th>
<th>% Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Market**</td>
<td>3.771,1</td>
<td>90,9</td>
<td>3.652,5</td>
<td>92,0</td>
</tr>
<tr>
<td>Foodservice Market**</td>
<td>379,3</td>
<td>9,1</td>
<td>318,6</td>
<td>8,0</td>
</tr>
<tr>
<td>**Total Market</td>
<td><strong>4.150,4</strong></td>
<td><strong>100,0</strong></td>
<td><strong>3.971,1</strong></td>
<td><strong>100,0</strong></td>
</tr>
</tbody>
</table>

Source: Food For Thought (FFT)

* All dairy products: products in ready - to - eat form
** Data based on estimated percent split of total market

In 2005, manufacturers’ branded products (table 11) account for 53.5% of total sales of dairy products, whereas unbranded products account for 38.7%. Instead, the share of distributors’ own label products and artisanal products is quite limited (together these products do not exceed 9% of sales).

Table 11: Branded products Vs Own label (2005)

<table>
<thead>
<tr>
<th></th>
<th>% Share of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturers' branded products</td>
<td>52,5</td>
</tr>
<tr>
<td>Unbranded goods</td>
<td>38,7</td>
</tr>
<tr>
<td>Distributors' own label*</td>
<td>1,5</td>
</tr>
<tr>
<td>Artisanal production**</td>
<td>7,2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100,0</strong></td>
</tr>
</tbody>
</table>

Source: Food For Thought (FFT)

* Retail distributor brands
** Artisanal: craft sales
In 2005 the degree of concentration in the dairy products market in Poland is rather limited (table 12), with a CR-3 of 18.7%. Apart from the top-9 firms, there are other 67 industrial firms operating on this market, with a total share of 56.6%, as well as some artisanal firms, although with a fairly small market share (7.2%).

Table 12: Concentration in the all dairy products* market (2005)

<table>
<thead>
<tr>
<th>Holding</th>
<th>% Share</th>
<th>Cumulative % Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danone</td>
<td>8.4</td>
<td></td>
</tr>
<tr>
<td>Mlekpol Grajewo</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>Drobiarz</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td><strong>TOP 3</strong></td>
<td></td>
<td><strong>18.7</strong></td>
</tr>
<tr>
<td>SM Mlekovita</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Hochland</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>Niemodlin</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>OSM Lowicz</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td>Przedsieb. Jajczarskiej</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Zott</td>
<td>1.9</td>
<td></td>
</tr>
<tr>
<td><strong>TOP 9</strong></td>
<td></td>
<td><strong>36.2</strong></td>
</tr>
<tr>
<td>67 Other companies</td>
<td>56.6</td>
<td></td>
</tr>
<tr>
<td>Artisanal**</td>
<td>7.2</td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

* Source: Food For Thought (FFT)
Multinational companies do not account for a significant share of the subsector, with the only exception of Danone, which has a share of 8.4%.

**Meat**.

In 2003, the overall production of fresh & processed meat in Poland (table 13) was channeled to the retail market by 81.1% and to the foodservice market (HoReCa sector) by 18.9%.

**Table 13: Demand in the all fresh & processed meat** *market (2003)*

<table>
<thead>
<tr>
<th></th>
<th>Volume</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>000 tons</td>
<td>% Share</td>
</tr>
<tr>
<td>Retail Market**</td>
<td>1.701,3</td>
<td>78,5</td>
</tr>
<tr>
<td>Foodservice Market**</td>
<td>465,2</td>
<td>21,5</td>
</tr>
<tr>
<td><strong>Total Market</strong></td>
<td>2.166,5</td>
<td>100,0</td>
</tr>
</tbody>
</table>

*All fresh & processed meat: products in ready-to-eat form

**Data based on estimated percent split of total market

In 2005, unbranded products (table 14) account for the greatest part of sales of fresh & processed meat (68.9%). Manufacturers’ branded products have a considerably lower share (28.1%) and artisanal production only accounts for 3% of sales.

---

5 The source of information for this paragraph has been Food For Thought (2005d).
In 2005 the degree of concentration in the fresh & processed meat market in Poland is moderate \(^6\) (table 15), with a CR-3 of 25.4%. Apart from the top-9 firms, there are other 83 industrial firms operating on this market, with a total share of 56.5%, as well as some artisanal firms, with a market share of 3%.

\(^6\) It should be noted, however, that unregistered trade in livestock and meat in Poland still accounts for a relevant share of the market (Rejman, 2001). Therefore, it can reasonably be suggested that the degree of concentration in this sector is even lower.
Table 15: Concentration in the all fresh & processed meat* market (2005)

<table>
<thead>
<tr>
<th>Holding</th>
<th>% Share</th>
<th>Cumulative % Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturn Nordic</td>
<td>11,8</td>
<td></td>
</tr>
<tr>
<td>Smithfield Foods</td>
<td>9,9</td>
<td></td>
</tr>
<tr>
<td>Rawa Mazowiecka</td>
<td>3,7</td>
<td></td>
</tr>
<tr>
<td><strong>TOP 3</strong></td>
<td></td>
<td>25,4</td>
</tr>
<tr>
<td>LDC</td>
<td>3,5</td>
<td></td>
</tr>
<tr>
<td>Globe Meat Technologies</td>
<td>3,0</td>
<td></td>
</tr>
<tr>
<td>Hormel</td>
<td>2,3</td>
<td></td>
</tr>
<tr>
<td>Sluzewiec Warszawa</td>
<td>2,3</td>
<td></td>
</tr>
<tr>
<td>Beef San Sanok</td>
<td>2,0</td>
<td></td>
</tr>
<tr>
<td>PMB Bialystok</td>
<td>2,0</td>
<td></td>
</tr>
<tr>
<td><strong>TOP 9</strong></td>
<td></td>
<td>40,5</td>
</tr>
<tr>
<td>83 Other companies</td>
<td>56,5</td>
<td></td>
</tr>
<tr>
<td>Artisanal**</td>
<td>3,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: Food For Thought (FFT)
* All fresh and processed meat: products in ready-to-eat form
** Artisanal: craft sales

Multinational companies do not account for a particularly significant share of the subsector, with the only exception of Smithfield Foods, co-leader with 9.9% of the market.
Agricultural sector structure.

The Polish agricultural sector (table 16) is characterized by a large number of small-sized farms on the one side, and a much lower number of medium and large-sized farms on the other side, with the latter controlling a relevant portion of the total agricultural land area. As a matter of facts, although in 2002 they only accounted for 1% of the total number of agricultural companies, farms of 50 ha and more actually controlled as much as 25.6% of the total agricultural land area (their average area was 218.4 ha). Farms between 20 and 50 ha controlled another 16.1% of the agricultural land area, while as many as 2.8 million farms (96.1% of the total) with less than 20 ha controlled the remaining 58.3% of the agricultural land area. In 2002, the average agricultural land of Polish farms was 5.8 ha. This means that the Polish agricultural sector as a whole is still very fragmented.

Table 16: Number and area of agricultural holdings by area groups (2002)

<table>
<thead>
<tr>
<th>Area groups</th>
<th>Number of agricultural holdings</th>
<th>%</th>
<th>Agricultural land area (ha)</th>
<th>%</th>
<th>Average land area per holding (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 20 ha</td>
<td>2.817.469</td>
<td>96,1%</td>
<td>9.849.029</td>
<td>58,3%</td>
<td>3,5</td>
</tr>
<tr>
<td>20 - 50 ha</td>
<td>95.943</td>
<td>3,3%</td>
<td>2.722.600</td>
<td>16,1%</td>
<td>28,4</td>
</tr>
<tr>
<td>≥ 50 ha</td>
<td>19.816</td>
<td>0,7%</td>
<td>4.327.668</td>
<td>25,6%</td>
<td>218,4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2.933.228</td>
<td>100,0%</td>
<td>16.899.297</td>
<td>100,0%</td>
<td>5,8</td>
</tr>
</tbody>
</table>

Source: Polish Statistical Information Centre
As regards livestock farms (tables 17 and 18), those of small and medium size (less than 50 ha) account for the greatest share of zootechnic resources (89.3% of livestock). Instead, large farms (over 50) only own 10.7% of livestock resources.
Table 17: Total number of animals and number of animals in private farms (2002)

<table>
<thead>
<tr>
<th>Animal</th>
<th>Number of animals (thousands heads)</th>
<th>Number of animals in private farms (thousands heads)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>5.533</td>
<td>5130</td>
</tr>
<tr>
<td>Pigs</td>
<td>18.629</td>
<td>16855</td>
</tr>
<tr>
<td>Sheep</td>
<td>34</td>
<td>29</td>
</tr>
<tr>
<td>TOTAL</td>
<td>24.196</td>
<td>22.014</td>
</tr>
</tbody>
</table>

Source: Polish Statistical Information Centre

Table 18: Animal distribution in private farms (2002)

<table>
<thead>
<tr>
<th>Animal</th>
<th>Number of animals in private farms by area groups (thousands heads)</th>
<th>% of animals in private farms by area groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 20 ha</td>
<td>20 - 50 ha</td>
</tr>
<tr>
<td>Cattle</td>
<td>3.506</td>
<td>1.293</td>
</tr>
<tr>
<td>Pigs</td>
<td>10.403</td>
<td>4.420</td>
</tr>
<tr>
<td>Sheep</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>13.926</td>
<td>5.720</td>
</tr>
</tbody>
</table>

Source: Polish Statistical Information Centre

The country’s population structure is fairly accurately reflected by the age distribution of farms’ owners (table 19). As a matter of facts, 68.4% of them is aged less than 55 years (the under 35-year olds are 15.4% of the total).
### Table 19: Number of agricultural holdings by age of holders (2002)

<table>
<thead>
<tr>
<th>Age groups</th>
<th>Number of agricultural holdings</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>under 35 years</td>
<td>450,280</td>
<td>15.4%</td>
</tr>
<tr>
<td>35 - 55 years</td>
<td>1,551,071</td>
<td>53.0%</td>
</tr>
<tr>
<td>over 55 years</td>
<td>926,492</td>
<td>31.6%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,927,843</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

*Source: Polish Statistical Information Centre*
Section 2.A.2: horizontal and vertical relations and adjustment mechanisms within the food supply chains.

**Horizontal relations.**

This paragraph provides some qualitative indications:
- on the nature of relations among different firms belonging to the same food supply chain level (i.e. competition / cooperation among firms);
- on the presence / absence of firms (or groups of firms) in a dominating position within a particular sector or subsector.

**Horizontal relations within the food distribution sector.**

An interesting phenomenon, resulting to a large extent from the arrival of large-scale retailers in Poland, is the constitution of buying groups of local traditional retailers, for the purpose of cutting purchasing costs and therefore selling at more competitive prices. Additionally, the retailing sector has seen an increase in the appeal of solutions based on the franchising model. Small and medium retail companies are ever-more interested in signing franchising contracts with larger operators, as they know this could favour their development process.

There is lively competition among large-scale retailers. All the major operators are trying to increase their market share, both through their own internal development and through mergers and take-overs. Although, for the time being, there is no market leader with a clearly dominating position on the domestic market, nevertheless all the major large-scale retailers together control such a big share of the retail market that they could easily influence the sector’s dynamics if they managed to adopt some cooperation strategies (not necessarily explicit ones).

**Horizontal relations within the main food industry subsectors.**

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7 The source of information for this paragraph has been ICE Varsavia (2005).
The concentration data presented in the previous section 2.A.1 do not point to a clearly domination position in none of the food industry subsectors taken into consideration, at least at national level. A noteworthy aspect, however, is the notable difference between the market share of leader company Fyffes and the shares of its main competitors in the fruit and vegetable subsector.

*Horizontal relations within the main agricultural subsectors*\(^8\).

In the Polish agricultural sector the decline of the cooperative sector in the early 90s was followed by the creation of several agricultural producer groups, which, together with the agricultural goods warehouses legally set up in 2000, are the main forms of horizontal grouping in the agricultural sector. By June 2004 permission to operate agricultural goods warehouses was granted by the Minister competent for agricultural markets to 34 entities. These warehouses are authorised to store cereal grains, rape-seed and pulses; they ensure the preservation of the commodity ownership, which remains with the agricultural producers, permitting them at the same time to make payments and to contract credits due to future sales of the stored commodities.

*Vertical relations and adjustment mechanisms*\(^9\).

This paragraph provides some qualitative indications:
- on the nature (competition or cooperation) of relations among different firms belonging to different levels of the food supply chain;
- on the presence / absence of vertical dominance phenomena within the food supply chains (i.e. firms - or groups of firms - that are in a dominating position over firms - or groups of firms - operating in the upper or lower level of the supply chain);
- on the inter-industry agreements within the food supply chains and on the related institutions.

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\(^8\) The source of information for this paragraph has been the Ministry of Agriculture and Rural Development (2004).

\(^9\) The sources of information for this paragraph have been Halicka (2001) and Rejman (2001).
• on the supply contracts within the food supply chains.

In the fruits and vegetables supply chain the development of stable relations of cooperation between agriculture operators and industry operators is hindered by the very fragmented nature of the agricultural sector, as well as by the continuous structural changes occurring within the industrial sector. The agreements between trade intermediaries, or agricultural producer groups, on the one hand and industry operators on the other are more common. Retail operators, particularly large-scale retailers, have strong bargaining power over both agriculture and industry operators. As a result, there is a higher propensity to sign long-term agreements with retail operators, whose terms and conditions clearly reflect their dominating position.

In the meat supply chain, due to the structural fragmentation and the technological and safety delays of the agricultural and industrial sector, it is difficult to establish stable relations of cooperation between these two food supply chain levels. Moreover, one shouldn’t forget the importance that the unregistered trade in livestock and meat still has in Poland, where it is often carried out without any veterinary controls. Large-scale retailers have a stronger bargaining power over industry operators and, as consequence, the terms and conditions set forth in the long-term agreements signed between these two categories of operators are often unbalanced in favour of retail operators.
Bibliographic references.

Food For Thought (2005a), *All Flour & Bakery Market Profile - Poland*, Food For Thought (FFT) Strategic Information Services (www.fft.com).


Food For Thought (2005c), *All Dairy Products Market Profile - Poland*, Food For Thought (FFT) Strategic Information Services (www.fft.com).

Food For Thought (2005d), *All Fresh & Processed Meat Market Profile - Poland*, Food For Thought (FFT) Strategic Information Services (www.fft.com).


Introduction

The process of implementation, dissemination and evolution of quality assurance systems in the Polish agri-food sector began in the 1980s and rapidly accelerated after the introduction of market economy in 1989. The first GMP rules were introduced to assure the minimum acceptable standards and conditions of production and storage of foodstuffs and guarantee their quality and safety. In the nineties the popularity of ISO 9000 standards increased and in the preparatory pre-accession period the implementation of new quality assurance schemes in Polish food processing companies was legally established.

The country’s membership (since May 1, 2004) in the European Union implies the harmonization of the national food safety and quality assurance system which was based on statements in the Constitution of the Republic of Poland and the Codex Alimentarius requirements is harmonised with the EU regulations. The system is built upon two levels, the compulsory and voluntary one and remains open to co-operation with consumer movements and non-governmental organisations. It is an important element of an early warning scheme of the appearance of health risk factors at population level and is financially supported from the state budget.

Although the idea of ensuring high quality and safety of food “from field to table” has been known in Poland since decades, is full realisation in practice meets with numerous difficulties. These are due, among others to such factors as:

- fragmented structure of agriculture and the food industry
- insufficient modernisation of food production and processing plants in certain branches of agricultural and food industry,
- not fully satisfactory education level of a part of agricultural and food producers,
- difficult financial situation of a large number of food chain participants, especially at individual farms level and some food industry sectors.
RESEARCH RESULTS

1. Fundamental Legal Regulations on QAS in Poland

One of the tasks given priority in state policy is assurance of health safety of food for reduction of the incidence of many diseases and health disorders related to poor health quality of food and effective improvement of public health status in the country. The Constitution of the Republic of Poland states that:

Everybody has the right to health protection (Article 68 1).

Public authorities protect consumers, users and tenants against the actions endangering their health, privacy and safety and against dishonest market practices.

The main legal document in Poland regulating the area of food and nutrition is the Act of 11 May 2001 with later amendments (last: 30.10.2003) on the health conditions of food and nutrition. The Act sets down the conditions of production of food products and stimulants and of the turnover of these commodities in the range indispensable for public health protection. It regulates also in the range indispensable for public health protection, the requirements concerning production equipment, machines, instruments, packing and other materials which are in contact with food products and stimulants in production and in distribution.

The Act contains also the general regulations concerning supervision and penalties. In the light of this Act the supervision of the health quality of food and stimulants and maintenance of proper sanitary conditions in the production and distribution of these commodities is the responsibility of the authorities of the Sanitary Inspection subordinated to the minister responsible for health and the veterinary service organs(Veterinary Inspection) supervised by the minister for agriculture and rural development.

2. The evolution of national institutions ensuring food quality and safety in Poland

As a result of significant changes of the organisational structure of state administration, a major reorganisation took place in the system of official food quality control in Poland during the recent years. Through legislative changes control organs have been isolated
from three ministries (Ministry of Health, Ministry of Economy, Ministry of Agriculture and Rural Development). They are still subordinated to these ministries but are separate central agencies of state administration. The statutory supervision of the health and trade quality control of agri-food in Poland is conducted by the following authorities:

- Sanitary Inspection (Inspekcja Sanitarna)
- Veterinary Inspection (Inspekcja Sanitarna)
- Trade Quality Inspection for Agro–Food Products (Inspekcja Jakości Handlowej Artykulów Rolno-Spożywczych, IJHARS)
- Plant Protection and Seed Production Inspection (Inspekcja Ochrony Roślin i Nasiennictwa, IORiN)
- Trade Inspectorate (Inspekcja Handlowa)
- Customers administrative authorities

The main organs supervising the health quality of food and nutrition, that is the Sanitary Inspection and Veterinary Inspection, finding that a food product, stimulant or additive fails to comply with the binding health quality requirements can forbid the production or introducing into the market that article, depending on the disclosed faults, can permit its use for another purposes but only after adequate adaptation and with keeping of definite conditions, or can permit its use but not for consumption. They can order destroying it as well.

The development and organisational improvement of the national food quality and safety systems in Poland in the nineties took place in cooperation with both Polish and foreign specialists who provided important expertise. One of the examples of such cooperation was the programme „Strengthening Food Control System in Poland” supported financially by the FAO and realised in co-operation with the National Food and Nutrition Institute in Warsaw.

It is worth stressing that the organs of Sanitary and Veterinary Inspections have at their disposal sufficient administrative and legal means for bearing full responsibility for the organisation and functioning of the Rapex System in Poland in the area of food safety and can professionally co-operate in that area with the European Union agencies.

Two other scientific-research centres specialising in the problems of food safety and quality assurance and cooperating with foreign organisations such as FAO/WHO and WTO should also be mentioned: the National Food and Nutrition Institute and the State Institute of Hygiene. At the National Food and Nutrition Institute the National Information Centre Food, Nutrition and Health has been organised for establishing contact with the population in the area of food safety and HACCP system. The facilities
and the staff of the Institute are also prepared for tasks connected with the participation in the Rapex System in food safety maintenance.

3. Typology of Supervision Systems

The supervision of food production, processing and distribution in Poland in particular regarding the quality and safety of food products is based on two main control systems, that is:

- The system of inner control conducted in the production plant, depending on the producer. In many plants this system is based on Good Manufacturing Practice (GMP) and presently in an ever increasing degree, on the system of quality assurance in accordance with ISO series 9000 standards and the Hazard Analysis and Critical Control Points System (HACCP).

- The system of external (outer) control independent of the producer who is carried out by specialised state control services.

Since 01.01.2004 the law obliges medium-sized and big food producing companies to carry out inner controls based on risk evaluation and the HACCP system in food production. For the production of dietetic food the obligation to use the HACCP system has been in force in Poland since 1996, in accordance with a relevant regulation concerning the details of the production and marketing of dietetic food products, stimulants intended for dietetic purposes and special food (Dz. U. Nr 108, paragraph 520 with later amendments).

4. Role of main institutions supervising the Quality of Food in Poland

A short description of the activities of supervising institutions is presented. The issues connected with the safety of modified genetically food belong to the competence of the Ministry of Environmental Protection and inspection organs subordinated to that Ministry.
4.1. Sanitary Inspection

The role, range of activities, organisation and rights of this authority are defined in the legal Act on Public Sanitary Inspection dated March 14, 1985 with later amendments and in the ordinance of the Minister of Health and Common Welfare of December 30, 1999 on granting statute to the Sanitary Inspection. The task of the Sanitary Inspection is among others, the supervision of:

- the health quality of food products and stimulants of Polish and imported origin and keeping of adequate sanitary conditions in the production and distribution of these articles (with the exception of food products of animal origin);
- state of food and nutrition hygiene;
- state of environmental hygiene;
- working place conditions (especially air, soil and water pollution).

For the realisation of these statutory duties the organs of the Sanitary Inspection have a specialised staff prepared for public health protection, equipment for investigations and a network of 346 Sanitary-Epidemiological Stations including 16 at province level, 309 at county level, 5 in ports and 16 in railway health service.

The Inspection is headed by the General Sanitary Inspector as a central organ of governmental administration. The General Sanitary Inspector is appointed and dismissed by the Prime Minister at the proposal of the Minister of Health.

4.2. Veterinary Inspection

In accordance with Article 3.1 of the Act of January 29, 2004 on Veterinary Inspection, this institution has been appointed to perform tasks related to animal health protection and veterinary protection of public health. The organ is headed by the Chief Veterinary Officer Inspectorate. The General Veterinary Officer is the central organ of governmental administration and as such he is appointed and dismissed by the Prime Minister at the motion of the minister responsible for agriculture. The tasks of the Veterinary Inspection include the control of infectious diseases of animals, examination of animals before slaughtering and meat, and performing of other tasks resulting from pertinent regulations, among them the supervision of:
the health quality of food products of animal origin, including the supervision of sanitary conditions of their obtaining, production and storage. The health quality of certain products from animals,
- the turnover of pharmaceuticals and medical materials intended for animals,
- the health of animals intended for reproduction purposes and the quality of biological material.

4.3. Trade Quality Inspection for Agro–Food Products (IJHARS)
The institution, established by Act of 21 December 2000 operates since January 1, 2003 and is subordinated to the minister responsible for agriculture. The IJHARS is responsible for the control of the quality of agricultural and food articles in international trading, particularly with respect to their compatibility with contract conditions. The control includes explaining whether the article in international trading complies with the standards, regulations establishing the requirements to be met in the country of its destination. Through co-operation with the EU and OECD the Inspection works according to the rules of the international food control system. It is an obligatory control, of official character, serving as a form of supervision and promotion of export and import rationalisation. The goods meeting the requirements of the contract receive quality certificates (the model of which was introduced by Act of 18 December, 2002. In case of justified suspicion that the goods do not meet the health conditions the inspector informs the organ which can decide in such matters, that is the Sanitary Inspection or Veterinary Inspection.

The Russian federal Agency for quality research and certification has awarded the Polish Inspection a accreditation certificate which enables the IJHARS laboratoria to perform complex control studies of the Polish food stuffs for compliance with Russian requirements which are obligatory in order for the products to enter Russia.

4.4. Plant Protection and Seed Production Inspection
The institution is subordinate to the minister responsible for agriculture. The General Inspector of Plant Protection is the central organ of governmental administration performing its tasks through the Central Inspectorate of Plant Protection. The institution’s main assignments cover a comprehensive supervision of cultivated plant protection, including phytosanitary supervision of cultivated plants and phytosanitary
control of plants and means for their transport at state border checkpoints and places of custom clearance within the country.

In case of food export the province inspectors give phytosanitary certificates (certificate form is compatible with the pattern accepted by FAO and standards of the International Convention of Plant Protection). These certificates are recognised by all states in the world. The border points of province plant protection inspectors decide about further management of imported goods, that is send them for custom clearance or return them back across the border.

The Plant Protection and Seed Production Inspection also supervises the certification of IPO (Integrated Production of horticultural produce) quality labels which were introduced in Poland at the beginning of the 1990s.

4.5. Trade Inspection

It is the implementing organ of the President of the Office for Competition and Consumer Protection subordinate to the President and, to a certain extent, to province heads. The main task of Trade Inspection is protection of the interests of consumers in a wide meaning. The supervision of food quality is a part of its activities apart to this role it also controls trading units, gastronomy and food service institutions. In case of disclosing offences against food safety or failure to keep to sanitary regulations the inspectors of Trade Inspection are obliged to inform the pertinent organs of official food control, that is the Sanitary Inspection or the Veterinary Inspection.

5. Evolution of the standardization system

The Polish Committee for Standardisation (PKN), established in 1923, is the official institution engaged in adapting standards to the international market conditions. PKN does not create new standards but concentrates on translating and implementing UN ECE (United Nations European Commission of Economy), ISO (International Organisation for Standardisation) and OECD standards. Thanks to the new act passed by the Polish Parliament on September 12, 2002 that adjusts the national standardization system to the system functioning in the European Economic Area, the national standardization system became fully compatible with principles of the European standardization.
The principal tasks of this institution are:

- assessment of the state of the art and directions of standardization activity,
- organization and supervision of publishing and dissemination of Polish Standards and other standardization documents,
- approval and withdrawal of Polish Standards and other standardization documents,
- representation of the Republic of Poland in the international and regional standards organizations, participation in their works and representation of national interest abroad in matters concerning standardization,
- initiating and organizing work of Technical Committees (KTs),
- organization and conduct of training, publishing, promotional and informational activities with regard to standardization and related areas,
- issuing opinions on draft executive acts related to standardization,
- participation in the national notification system for standards and regulations.

On January 1, 2004 PKN became a member of CEN (European Committee for Standardization). In 2003, a total of 5,196 work items were completed, 90.1% of which were transpositions of European Standards into Polish Norms (PN). A number of work items carried out in 2002 was exceptionally high due to the fact that PKN had to transpose into Polish Standards at least 80% of European Standards in connection with its accession to CEN. It was an extraordinary situation and such work could be done only by using an endorsement method, i.e. by transposing European Standards into PNs in the language of origin. A drop in the number of work items completed in 2003 by 40% as compared to the previous year reflects a return to normal conditions of PKN work dictated by the pace of work in European standards organizations, among other things.

The Polish Norms (PNs) are currently (since May 1, 2004), after adjusting to the EU legal framework voluntary standards.

The public institution established for their certification is the Polish Centre for Testing and Certification (PCBC) which acts within the EU conformity assessment system. PCBC is a one share company owned by the State Treasury and functions since 1994. Its main tasks include:

- performing tests and issuing applied documents for the purposes of CE-Marking according to regulations of proper ministers which include essential requirements for products (New Approach Directives);
- testing and certification of products for voluntary conformity labels (marks): B, Q and EKO for which PCBC is a proprietor;
• certification of quality management systems, environmental management systems, occupational health and safety management systems, integrated management systems, WSK (Internal Control Systems), HACCP, ISO 13485, Ecolabel etc.;
• training of quality personnel (EOQ Quality Auditors, EOQ Quality Managers, EOQ EMS Auditors, EOQ EMS Managers etc.);
• international co-operation.

PCBC has also issued to 3000 of its customers the international IQ Net Certificates recognized in 33 countries worldwide. All certificates issued by the PCBC, although not obligatorily required by the law after 30 April, 2004 maintained their validity in respect of merits in the scope of testifying conformity with standards specified on the certificate. The certificates are valid till their validation date placed on certificates and the manufacturer are subject to supervision of the PCBC according to the agreement. Voluntary safety certificates issued after Poland's accession to the EU confirm that the product is safe and its manufacturing is supervised by the public certification body. Moreover, on request of the client, information that products specified on certificate meet also requirements of Standards Harmonized with particular directives may be also placed on certificates. This is an additional guarantee, issued by the notified body, of reliability of manufacturer's declaration of conformity. The Polish Centre for Testing and Certification is a proprietor of three voluntary safety and quality labels B, Q and EKO which were present on the Polish market for many years. They also comprise an opportunity to obtain marks of foreign certification bodies on the basis of bilateral agreements concluded by the PCBC with most of European certification bodies.
Task 2.C

This chapter reports the results of a research about food supply chain dynamics and related drivers of change in Poland. The research is focused on the aspects strictly connected with quality assurance and labelling systems. The aspects of the food supply chain dynamics under consideration are those previously studied within the task 2.A. As to the study of the related drivers of change, the effects of the following drivers of change will be briefly described:

1) social and cultural drivers of change;
2) technical and economic drivers of change;
3) political drivers of change;
4) other drivers of change - i.e. different from the ones under the above points 1), 2) and 3) (if any).

Section 2.C.1: food supply chain dynamics.

Structure of food supply chain levels and of their components.

Food consumption structure.

According to Berger and Kowrygo (2001) and Wilkin, Juchniewicz and Milczarek (2004), the recent development of the food consumption structure in Poland has been characterised by:

- a steady reduction in the contribution of food expenses to the total household expenses;
- the growth in the consumption of fruit, vegetable fats, poultry meat and fish;
- the reduction in the consumption of sugar, dairy products, red meat and animal fats, eggs.

It is reasonable to expect that the above-mentioned trends will continue in the short and medium term.
Food distribution structure\textsuperscript{10}.

According to the experts’ predictions, retail chains will control 50-60\% of retail sales in 3-4 years; it is estimated that in 2010 the share of big retail networks in Poland will reach 75-80\% of retail trade, as it is now in Western European economies. A process of vertical integration can be observed now in Poland, as super- and hypermarkets are gradually building a national supply system instead of being supplied through international channels with products originating in other countries.

In Poland the expansion of big international retail chains has generated conflicts in some places with representatives of small, traditional stores. There have been several actions at national and local level aimed at both stopping the construction of new hyper- and supermarkets and at restricting their operation on Sundays. However, these actions have not achieved noticeable success.

It is clear that the importance of small retail shops in Poland will continue to decrease. The only strategy that could allow smaller shops to maintain a significant presence on the market would be to implement some forms of integration with the use of common colours. The most effective way to achieve this objective in the near future could be the franchising system.

Food industry structure\textsuperscript{11}.

In the first stage of market reforms in Poland, a great number of food processing plants were established. Later on many of them were acquired by big multinational companies. In the 1990s the Polish agro-food industry indeed became one of the main targets of foreign direct investments. FDI in Polish food industry jumped from USD 1.886 million in 1994 to USD 6.402 million in 2002. However, the growth of FDI in the Polish food industry has been slowing down since 2000.

It is logical to think that the concentration process in the Polish food industry is still far from being completed and the same goes for the subsectors considered in this research as they show quite a moderate level of concentration.

\textsuperscript{10} The sources for the drawing up of this paragraph are Wilkin, Juchniewicz and Milczarek (2004) and ICE Warszawa (2005).

\textsuperscript{11} The source for the drawing up of this paragraph is Wilkin, Juchniewicz and Milczarek (2004).
The recent structural evolution of the Polish agricultural sector has been characterised by the following main dynamics:

- little change in the number of very small farms (less than 5 ha) with, on average, older managers. Such farms represent the stagnant element of the sector;
- increase in the number of medium-sized farms (more than 15 ha) with, on average, younger managers. Such an increase has mainly affected small farms (5-15 ha);
- increase in the number and importance of big farms (more than 100 ha) mainly resulting from the privatization of state farms.

It is highly likely that this process of structural polarization of the Polish agricultural sector will continue in the short and medium term, leading to the creation of two groups of farms with opposite characteristics. However, only one of these groups seems to be able to face the challenges of the market economy.

**Horizontal and vertical relations and adjustment mechanisms within the food supply chains.**

**Horizontal relations.**

It is logical to expect that the completion of the transition to a market economy of Western type and the increasing concentration in the food industry and distribution sectors will lead to the implementation of more and more forms of horizontal integration as a means of survival by the weakest components of the Polish agricultural and food system, that is, the agricultural producers (due to the still limited diffusion and importance of agricultural producer groups) and the small and medium-sized enterprises of the food industry and of the traditional food retail trade.

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12 The source for the drawing up of this paragraph is Crescenzi (2004).
Vertical relations and adjustment mechanisms.

Considering the relatively limited diffusion of forms of vertical coordination between the agricultural and industrial levels in the food supply chains under consideration and the strengthening of the dominating position of large-scale retailers, it is logical to expect that there will be much more attempts to implement cooperation relations as well as an increased use of instruments like inter-industry agreements and supply contracts in the relations between agricultural producers and food industry. According to experts, such an evolution is the only viable way to make the Polish agricultural and food system efficient enough to survive in the EU and world market and to ensure the satisfaction of the requirements of a food demand that in the future could require a higher level of food quality and safety (Halicka, 2001; Rejman, 2001; Wilkin, Juchniewicz and Milczarek, 2004).

Section 2.C.2: drivers of change in food supply chain dynamics.

Social and cultural drivers of change.

It is reasonable to expect that the action of the social and cultural drivers of change mainly linked to the higher education level of the population and to the greater diffusion of Western lifestyles and consumption habits will mostly affect the food demand and the agricultural sector, thus helping the introduction of innovations, among which the organisational ones are particularly important. As to the food demand, however, it is frankly difficult to estimate whether the food model prevailing in the future in Poland will be characterised by a greater attention to food quality and safety or not (Berger and Kowrygo, 2001).

Technical and economic drivers of change.

As to the effects of the action of the technical and economic drivers of change (i.e. technological and organisational innovation; market dynamics for agricultural and food
products; market dynamics for agricultural and food industry inputs) on the general configuration of the Polish agricultural and food system and on the structure of its components, it is not very plausible to expect that they will be considerably different from the ones occurred in all Western countries, if Poland completes its transition to a market economy. It is thus highly likely that the future evolution of the Polish agricultural and food system will be characterised by a greater concentration in the different sectors and subsectors of the agricultural and food system and by a higher implementation of forms of horizontal and vertical coordination between companies.

**Political drivers of change.**

As to the effects of the action of the political drivers of change (i.e. the setting of new political priorities in the fields of agribusiness, health protection, consumer protection, environmental protection, animal welfare), the recent stance of the Polish policy makers seems to show the wish to find a hard compromise between two quite conflicting objectives, that is, on the one hand, the wish to complete the transition to a market economy and the process of integration in the European Union, and, on the other, the wish to avert traumatic changes in the structure of the agricultural and food system, and particularly the shutdown of a great number of production structures that are inefficient or that do not satisfy the EU requirements. In this political perspective, the Polish government has asked the EU the granting of a transition period for a great number of non-conforming food plants, and particularly for the plants of the milk and meat subsectors. Such a request has been greatly criticised in Poland as it would slow down the process of increase in efficiency in the above-mentioned subsectors and would create difficulties to the already conforming enterprises by artificially enabling the survival of competitors that would otherwise have to leave the market (Rejman, 2001).
Bibliographic references.


1. Quality standards (certificates) conferred in Poland

Apart from activities regarding international quality assurance schemes, public institutions in Poland carry out several voluntary quality certification programmes and confer specially designed and marketed quality labels. Food products can obtain the following ones:

1. PDŻ (Poznaj Dobrą Żywność, Try Fine Food) standard
2. Q – Quality label/standard
3. IPO (integrated production)
4. <PN> conformity with the Polish standards (PNs) label
5. EKO – ecological standard (due to JRC project scope details will not be presented in report)

1.1. PDŻ label

The PDŻ standard (label) was issued in May 1, 2004, as a continuation of an identical scheme “Polish Fine Food” (Polska Dobra Żywność, also PDŻ – functioning in years 2000-2004) aimed at promoting food products of high and stable quality. The Polish Ministry of Agriculture and Rural Development is responsible for the programme – its organisation, implementation and financing. The programme, concentrating at informing consumers and enhancing their confidence in the distinguished food products is from May 2004 open to all food companies from the EU. The special PZD logo can be assigned to those products that comply with the criteria established by the Scientific Council for Food Product Quality composed of independent experts. The label is valid for up to three years (when awarded for the first time) and up to five years (if continued).

The proposed products are inspected by the Council through numerous independent control bodies. The programme covers the following groups of products (fresh and processed): meat, eggs, milk, fruits and vegetables (including potatoes) and mushrooms, cereals (incl. bakery goods), fish and seafood, non-alcoholic beverages, mineral waters, honey, sugar confectionary and cakes, herbs and spices, consumer fats and oils, mixed and highly processed products based on the abovementioned materials.
In 2005, 18 companies were awarded the PDŻ label, among them – 7 manufactures processed milk products, 5 – processed meat, 2 – fruit and vegetable products. It is estimated that altogether there are now about 50 companies market food products which have the achieved the PDŻ standard, mostly from the meat and milk sector.

In order to obtain the PDŻ quality label the food producer (the only subject to apply) has to fully complete an application form for PDŻ mark as well as documents on the system of quality assurance implemented in the company and on the origin of products and additional substances. The company also has to prepare a scheme for product control, the results of tests required in the PDŻ programme, product description and the attach the sample testing protocol.

The legal act regulating these procedures is the Decision of the Ministry of Agriculture and Rural Development of 26 April, 2004. It labels are officially presented two times per year by the Minister (during a special PDŻ picnic and the biggest Polish Food Fair (Polagra). Participation of companies in the programme is free of charge.

1.2. Q label

The Q – quality label is assigned by the Polish Centre for Testing and Certification (and other units accredited by PCBC) to products of companies from the farm and food industry sector which are of top quality, are produced in a serial and repeatable way. It is estimated that currently there are 54 companies on the food market with a valid Q label. Among the holders of the Q label milk processing companies (mostly cooperatives) dominate, followed by meat producers, confectionary (sweets and chocolate), pasta, fruit and vegetables, vegetable oil and spices. Some examples are:

- Sokołów SA, ŁMeat Łuków SA, Drobimex (meat),
- Agros Nova Ltd., Hellena SA (f&veg products),
- Cereal Products - Poland, Malma Pizza, Polskie Młyny (cereals),
- Nestle-Winiary, Kamis-Przyprawy SA (spices, concentrates).

Regulations regarding the procedures of product testing and Q label certification by PCBC are provided by the no.18 Decision of the PCBC Director, of 28 August 1996 and are in framework of the Minister of Economy’s Regulation of 10 March, 2000 regarding the certification of products.

The Q standard logo can be assigned to those products (both of Polish and foreign origin) that comply with the criteria established by the Polish Centre for Testing and Certification which are regulated by the composed of independent experts. The certificate is valid for up to three years (when awarded for the first time) and up to five
years (if continued). The procedure of certification is specific for different groups of plant and animal-originated products. The producer, upon filing for the Q-certificate must give the following complex information/documents for analysis by PCBC Technical Committee:

- description of product ingredients
- short analysis of the technological process of production
- data on the organisation of control procedures regarding the product
- list of reclamations in latest production year
- implementation of HACCP
- report on quality tests performed by producer (last 10-20 analyses)
- comparative tests with other high-quality similar products on the market
- storage tests (with data on term of consumption)
- opinion of sanitary authorities on the hygiene and sanitary status of the production plant
- description of product packaging and label forms
- confirmation from proper institution that the packaging is safe for food product storage
- opinion of key buyers of product
- sample of product.

The certification agreement that each producer must sign with the certification body (PCBC) before the certification process starts also includes the financial cost of the process, control requirements, conditions under which the Q label can be used and the principals regarding the prolongation or cancellation of certificate.

1.3. IPO – Integrated Production of horticultural products label

The integrated production (IP) system was first applied in Europe in 1977, in Switzerland. After many years of research its principles were published in 1991 by OILB and have widespread in most countries, covering 80-90% of the production of fruit in Western Europe. In Poland the scientific and technical analysis of integrated production – aimed at increasing the quality of fruits and reducing the use of chemicals (and level of their residues in final products) started in the beginning of the 1990s at the Institute of Pomology in Skierniewice. The institute has drafted the systems principals, guidelines and standards for almost 20 fruits and vegetables (incl. apples, pears, currants, raspberry, plums, peaches, cherries, strawberries, tomatoes, beets, carrots, cabbage, onion, cucumber and salad). They are specific for the Polish conditions,
however comply with the OILB and ISHS (International Society of Horticultural Sciences) requirements.

The abovementioned Institute in Skierniewice is the main organiser of obligatory courses for producers on implementing the system and offers full advisory services. Thanks to a EU grant the courses were in the last years free of charge.

The IP label in Poland is certified by the Plant Protection and Seed Production Inspection in accordance to the Act on Plant Protection of 18 December, 2003. In comparison to “old” EU countries, such as the Netherlands or Belgium, the percentage of horticultural farms using certified integrated production technology in Poland is small – in the case of apples 12-14%, and a few % in case of other produce. In 2003 the number of new certificates granted by the certification body was about 1000, 80% of which was for apple production.

According to the principles of the system the farmers have to keep a special register (diary) where they write down all the data on agrotechnical methods used including dates, methods and chemicals used in production and protection against insects and plant diseases. This is subject to regular control. The certificate is valid for a one year period.

The interest of farmers in the IPO certification scheme is rather small because, especially in the small ones, which find it difficult to make the decision to apply. The economical “push” is also rather insignificant farmers find it easy to sell their producs, either with, and without the IPO certificate. It is however important to underline that currently no major retail chains buy fruit and vegetables from Polish producers that do not have the IPO certificate.

1.4. PN label

The PN label certifies that the products confirns with the Polish Standards, harmonized with the standards of the UE. It is a volontary label, certified by the Polish Centre for Testing and Certification. It is regulated by the same legal acts as the Q quality label and is conferred to producers which apply and meet the set requirements.
2. Private economic subjects activities in quality labelling and certification schemes

In the first period of economic transformation in Poland in general the control and standardisation procedures conducted by public institutions was regarded as sufficient. Most of the food chain participants were learning completely new “rules of market game”, trying to compete in rapidly changing economical, legal and political conditions. Quality control procedures were regarded as costly and time-consuming and as the responsibility of the public institutions and the inspectors paid by the government.

The foreign retail chains were the first which predicted that in the near future some type of quality control carried out by private companies will be needed - aimed at attracting a growing number of more “quality-oriented” consumers. However in general the most often carried out activities by distributors were:

- control of temperature in the transportation vehicles (isotems) to check if it is appropriate,
- general evaluation of products’ appearance – if not satisfactory the price is often re-negotiated.

In the primary phase of market development in Poland the implementation of quality assurance systems faced several other market conditions (besides lack of “voluntary need” to introduce them by market participants) which can be seen as “hold-up” problems in the functioning of the chain as a whole. These included:

- insufficient qualification and experience of personnel in quality management,
- high cost of quality management and control,
- underdeveloped vertical integration along the food chain (making it impossible to control quality if the suppliers changed often);
- market research results showing that economical factors (price and income) and freshness and appearance determined the behaviour of the majority of consumers.

In spite of the abovementioned factors and specificities of Poland’s fastly developing and increasing (in terms of both volume and value) food market the supply chain participants have currently started to notice the necessity to introduce some QAS in order to stabilize the cooperation between buyers and suppliers. This process was initiated in the late nineties in big, multinational hypermarket chains in relation to
domestic products, where vertical integration between producer and distributor began to develop.

Currently special certifications are required by a slowly growing number of retailers. The specific procedures are based on those developed in the chains’ stores located in other countries. For example in Poland 4 producers have obtained the Carrefour quality label, which is similar to the Eurepgap label. Two of these Polish producers supply fruit, one honey, one – fish. These products belong to a more luxurious group of foodstuffs and are sold at higher price. Tesco stores require the IPO label from all of its fruit and vegetable suppliers and wants them to have the EUREPGAP certificate (which will enable to introduce the Nature’s Choice label) in the nearest future.

According to conducted research other participants of the food chain – such as producers, processors and other smaller (traditional) distribution units have not yet developed private standards due to such factors as:

- strong price sensitivity of consumers, who are unwilling to pay surplus price for higher quality and usually don’t read labels and information of the product’s class or origin,
- sharp price competition in traditional distribution network,
- shortage of representative information on consumer’s preferences concerning the analysed products,
- trust in government agencies and regulatory authorities responsible for the administration of quality standards,
- high cost of certification procedures.

Many larger companies which have a quality-oriented strategy apply for public quality certificates such as the well-known Q label or newer PDŻ. The largest number of such enterprises are in the milk and meat sectors, some of which have all the certificates developed by public institutions. However, further intensive promotional efforts seem to be necessary to increase consumer awareness as regards quality of standards for the development of quality labeling among a larger number of Polish private companies.

A specific group of market participants which is very much interested in achieving quality certificates is the group of exporters and those selling to EU buyers (processors or distributing companies). The Polish sellers are obliged by their partners to have such international schemes as BRC, EUREPGAP and others, depending of the importing country/region. Due to the fact that reliable advisory (consulting) agents and
certification companies have just started to appear on the market in the last 2-3 years the system is only started to develop.
FINAL REMARKS

There are many benefits from voluntary certification confirmed by an independent certification body recognized on the EU market, such as:

- increase of confidence of the domestic and foreign consumers/buyers to the product
- opportunities to obtain economic effects in result of increased demand for certified product.

It must be emphasized that in Poland this is seen as a very costly procedure that many companies can not still afford. Other priorities of the food sector companies in the last years have up to now influenced this situation. They can be related to the preparing for EU integration (new laws), fighting competition (foreign investments are big, multinational companies have taken over companies in all sectors), changes in foreign trade (exporters to Russia had to find new buyers after the Russian crises) mid 90s. The small size of most companies and low level of horizontal and vertical integration are other factors determining this situation too.

This process started to take place in the mid nineties in big, multinational hypermarket chains in relation to domestic products, where vertical integration between producer and distributor began to develop.

The public food quality control and standardisation system in Poland has undergone a deep process of transformation and adjustment to EU requirements. In the nineties producers, food processing companies and most distributors had the feeling that “they have no control on these issues therefore they should wait and see”. The passive behaviour of Polish distributors regarding quality management was a result from a wide-spread opinion that the control of quality is the task of public institutions and organisations. Currently the quality regulations and control are also considered as non-tariff barriers for trade. The rapid development of the Polish retail market together with the integration with the EU and growth of export will probably lead to the elaboration of quality regulations and labelling in the private level in the close future.