Market description - Macroeconomic Data

Poland is one of the biggest packaging markets in Europe. Packaging industry is equipped with modern means of production and the latest technologies, and the offer of packaging producers is fully competitive in the foreign markets.

The packaging market in Poland has been developing dynamically in the last twenty years. A constant demand for modern packaging has been observed since the transformation of the political system. In the 1990s packaging was ascribed a marketing function. In this period also technologies applied for years in the Western Europe allowing production of packaging that was unknown before (aluminum cans, PET bottles, etc.) were brought to Poland.

Table 1 and Graph 1 present data concerning the sold production of the main types of packaging in 2002-2010. It is noticeable, among others an increased share of the packaging production in the total value of the sold production. The sector regained its fast pace of development in a relatively quickly after the periods of slowdown caused by the world recession. This fact confirms that the packaging industry in Poland still reveals high potential of development.

:: Table 1 Value of the industry sold production by main packaging type
(current prices in PLN million)

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wooden packaging</td>
<td>512,3</td>
<td>591,2</td>
<td>735,6</td>
<td>819,7</td>
<td>894,9</td>
<td>1 208,3</td>
<td>1 687,0</td>
<td>964,9</td>
<td>1 102,7</td>
</tr>
<tr>
<td>Corrugated paper, corrugated cardboard and paper and cardboard packaging</td>
<td>3 440,7</td>
<td>4 093,9</td>
<td>4 408,5</td>
<td>4 682,5</td>
<td>5 275,2</td>
<td>6 172,4</td>
<td>6 657,1</td>
<td>6 388,6</td>
<td>7 473,7</td>
</tr>
<tr>
<td>Plastic packaging</td>
<td>3 098,7</td>
<td>3 721,7</td>
<td>4 332,2</td>
<td>4 918,9</td>
<td>5 403,1</td>
<td>6 314,2</td>
<td>6 929,4</td>
<td>7 772,9</td>
<td>8 433,0</td>
</tr>
<tr>
<td>Light metal packaging</td>
<td>1 880,0</td>
<td>2 163,9</td>
<td>2 398,6</td>
<td>2 193,7</td>
<td>2 519,0</td>
<td>2 568,3</td>
<td>2 538,0</td>
<td>3 209,4</td>
<td>3 156,6</td>
</tr>
<tr>
<td>Dynamics of the sold production of main packaging groups</td>
<td>118,4%</td>
<td>112,3%</td>
<td>106,2%</td>
<td>111,7%</td>
<td>115,4%</td>
<td>109,5%</td>
<td>102,9%</td>
<td>110,0%</td>
<td></td>
</tr>
<tr>
<td>As share of sold production of the industry</td>
<td>2,3%</td>
<td>2,1%</td>
<td>2,1%</td>
<td>2,2%</td>
<td>2,2%</td>
<td>2,3%</td>
<td>2,6%</td>
<td>2,6%</td>
<td></td>
</tr>
</tbody>
</table>

Source: GUS [Central Statistical Office]

Economic slowdown initiated by the financial crisis of 2007 entailed a significant decrease in demand for packaging of numerous economy sectors (automotive, construction, consumer goods). The plants providing packaging for these sectors were constrained to reduce production by about 15-25%. A relatively small decrease in production of about 3-5% concerned packaging for the food, pharmaceutical and cosmetic sectors. A slight influence of the crisis on the Polish economy does not entail a significant threat to a long-term functioning of the packaging industry. The crisis in turn represents an important threat to enterprises operating in the countries with zero or negative economic growth. A potential loss of production capacity and markets by a part of enterprises operating in the foreign markets may constitute - during another wave of economic growth - a chance for enterprises operating in Poland.
A large majority of production of the packaging industry in Poland is intended for the internal market. About 20-30% of production is exported. Import applies to the branches in which the Polish industry is unable to satisfy the internal demand. This situation is present in the markets of machines and appliances for packaging and for packaging production.

The packaging sector generates about 2% of the GDP of Poland.

**Market Description - Enterprises**

Currently in Poland about 7000 companies operate in the packaging industry, of which 4300 are considered important. They include 2300 production companies, 1200 companies offering packaging services or rendering services to the packaging industry and about 800 companies that operate in the area of distribution. These companies employ about 200 thousand persons.

The structure of the Polish packaging industry is similar to the sales structure. About 50% of 2300 most important producers offer plastic packaging, and further 38% produce paper and cardboard packaging. The share of each of the other group of materials (wood, metal, glass and other) constitute about 2-4% of the entire market.

A relatively high concentration of production is typical for the Polish packaging industry. About 300 out of 2300 producers satisfy 70% of demand of the national packaging market. This is a result of the presence of strategic foreign investors in the Polish market that represent large companies and capital groups. This situation concerns, among others the markets of metal, corrugated paper and cardboard packaging, and to a smaller extent, those of glass and plastic materials.

At present, large international companies and capital groups present in Poland include:

- CAN PACK,
- Ball Packaging Europe,
- STORA ENSO,
- MONDI,
- SMURFIT KAPPA,
- Constantia,
- TETRA PAK,
- OWENS ILLINOIS,
- International Paper an other.

Their offer is completed by Polish companies, mostly of small and middle size that often act as subcontractors.

National companies and capital groups were created and developed in Poland. They play an important role in the European and or world markets. The examples of such enterprises include:

- DGS from Włocławek, a powerhouse in the production of metal and plastic caps (3rd position in the world, presently after the owner change).
- Warta Glass group from Poznań having a strong position in the glass packaging market,
- DEKORGLASS from Działdowo - one of the top European companies in the segment of glass and plastic packaging decoration,
Packaging Market in Poland 2011 :: s. 4

• BETTS Poland (Konstancin-Jeziorna) playing an important role among tube producers,
• FORMIKA from Raszyn,
• "Czechy" glassworks,
• TUR glassworks, famous in European and Asian markets of glass packages for its small-scale, special order manufacturing.

Perspectives of Development in the Packaging Market in Poland

A natural reference point in the analyses of potential development of Polish economy is countries of Western Europe. In the countries with a developed packaging market this sector constitutes on average about 2% of the value of goods sold in the market. This share reaches 7-8% on the grocery or beverages market (data for Germany).

In the EU15 countries the use of packaging in 2010 amounted about EUR 320 per inhabitant. In the same period in Poland this value amounted to EUR 157. Assuming an even lower target level than the one in Western Europe in a 20-year perspective a 100%-growth of this indicator may be expected. The expectation that the pace of development of the packaging industry in Poland will remain noticeably faster than the economy pace of development is well-founded. In the light of the current economic situation and international comparisons, the packaging market in Poland should be considered highly prospective.

The structure of Polish packaging market will become similar to the developed markets of the countries of Western Europe. In the upcoming years an increase in the share of paper and cardboard packaging (by about 4-5 percentage points) and a decrease in a relative popularity of metal packaging may be expected. The share of plastic packaging should remain at a level which is similar to the present one. Forecasts for glass packaging are not unequivocal. Some of them indicate a decrease in the demand, whereas others predict a revival of the glass packaging.

Organizations and Sector Events

The Polish Chamber of Packaging was established in 1994. It assembles over 100 producers (of packaging, materials, machines and appliances for the packaging industry), research institutions and high schools. It acts as an economic self-government and representative of members of the packaging industry in their relations with institutions, including public administration. In the framework of its activity, the Chamber:

• supports enterprise development, in particular small-, and middle-sized ones,
• provides educational, information, consulting and promotion services,
• supports promotion and marketing actions and economic and organizational initiatives of its members,
• organizes economic missions, mediates in establishing trade and cooperation contacts,
• runs a database of trade and cooperation offers,
• cooperates with sector unions and associations, and foreign organizations,
• participates in the processes of economic law making, and creation of industrial, tax and duty policies,
• supports the activity of Polish enterprises in the foreign markets.

The Polish Chamber of Packaging issues Packaging Bulletin ["Biuletyn Opakowaniowy"], an informative and promotional bimonthly. It is also a co-organizer of National Packaging Contest "Pak-Star" [Ogólnopolski Konkurs Opakowań PakStar] and National Packaging Projects Contest "Student Pak-Star" [Krajowy Konkurs Projektów Opakowań Student PakStar] the aim of which is to stimulate and promote investments in the field of packaging in order to improve packaging and better protect the packed products as well as to increase competitiveness in the national and foreign market. A member list of the Polish Chamber of Packaging is available on: http://www.pio.org.pl/czlonkowie-polskiej-izby-opakowan.html

Besides Packaging Bulletin ["Biuletyn Opakowaniowy"] issued by PCP other specialist periodicals and sector Internet portals are present in the market. Journals dealing with the issues of packaging include Packaging ["Opakowanie"] monthly and "Packaging Polska" magazine. Popular sector portals are opakowania.com.pl and opakowania.biz.

The main fair events intended for packaging producers are PAK-FOOD and TAROPAK. Food Industry Packaging Fair "PAKFOOD" is organized along with the following food industry fairs: "Polagra-Food" International Trade Fair for Food, "Gastro Trendy" International Trade Fair for Gastronomy, "Tastes of Regions" Fair, "Polagra-Tech" International Fair of Food Technologies. The last edition
was scheduled for September 2011 and attracted about 45 thousand visitors. "PAKFOOD" Fair gathered 140 companies from 18 countries presenting finished food packaging, materials and semi-products for packing production, packing materials, machines for production, packing and labeling.

During this year's editions of "POLAGRA" and "PAKFOOD" Fairs 120 prizes, distinctions and honors were awarded. The events held during the fairs include, among others: "Packaging Day", seminars and conferences concerning the sector issues. "TAROPAK" International Fair of Packaging and Logistics are organized along with the above-mentioned food industry fairs every two years (last edition: 2010). They gather over 600 exhibitors from 30 countries and significantly extend the scope of "PAKFOOD" fair.

Research and Educational Resources

Polish Packaging Research and Development Center in Warsaw (COBRO) is a national specialized center dealing with packaging science. COBRO is a research institute working mainly on commission of usually related with the field of logistics. The studies packaging producers and users. It disposes at modern equipped research laboratories. The Center has both public (universities, universities of technology), also a possibility of production of experimental series and private ones. Colleges that specialize in this field of packaging materials and packaging.

Research and development works devoted to plastic materials are performed at technical universities, i.e. Łódź University of Technology or Poznań University of Technology.

Educational offer for the packaging industry is usually related with the field of logistics. The studies automotive, electronic, aviation, biotechnological, modern services and research and development sectors. The assistance is granted on the basis of a minimum number of the workplaces created or the amount of investment expenses incurred.

<table>
<thead>
<tr>
<th>Supported sector</th>
<th>Minimum workplace number</th>
<th>Minimum investment value</th>
<th>Maximum amount of assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support for the creation of new workplaces</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>automotive, aviation, biotechnology, IT and electronic</td>
<td>250</td>
<td>40 million PLN</td>
<td>from PLN 3 200 to 15 600 PLN per one workplace</td>
</tr>
<tr>
<td>BPO</td>
<td>250</td>
<td>2 million PLN</td>
<td></td>
</tr>
<tr>
<td>R&amp;D</td>
<td>35</td>
<td>3 million PLN</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>500</td>
<td>1 billion PLN</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supported sector</th>
<th>Minimum workplace number</th>
<th>Minimum investment value</th>
<th>Maximum amount of assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support for the creation of new workplaces</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>automotive, aviation, biotechnology, IT and electronic</td>
<td>50</td>
<td>160 million PLN</td>
<td>2-10,5% of the investment value</td>
</tr>
<tr>
<td>Other</td>
<td>500</td>
<td>1 billion PLN</td>
<td></td>
</tr>
</tbody>
</table>

Note: average exchange rate EUR 1 = PLN 4.00 (August 2010)
Funds of the European Union

In years 2007-2013 Poland is granted a significant flow of the EU funds which amount to over EUR 67 billion. Entrepreneurs may apply for the funds from the following Operative Programs (OP):

- 5 national Operative Programs:
  - Infrastructure and Environment,
  - Innovative Economy,
  - Human Capital,
  - Development of Eastern Poland,
  - Technical Assistance,

- 16 Regional Operative Programs,
- Programs of European Regional Cooperation.

Exemptions from tax on legal persons CIT (rate: 19%)

They are available in Special Economic Zones that is in selected regions of Poland where economic activity is run on special terms. Exemptions from income tax amount to 30%-50% of investment expenses or costs of personnel employment in the period of 2 years, whichever are higher.

Exemptions from the Tax on Real Estate

The exemption depends upon the number of new workplaces created and if the local self-government has a policy of tax exemptions. The rates of the tax on real estate are established locally in the framework of maximum rates in a defined year. In 2011 the maximum rates applied amount to PLN 21.05/ m² for buildings PLN 0.80/ m² for the land and 2% for the construction.

The report was prepared on the basis of:

- Przemysł i rynek opakowań w Polsce w ujęciu makro, kwiecień 2011 [Industry and Packaging Market in Poland in the Macro Perspective, April 2011],
- Rynek opakowań w Polsce w 2009 r. [Packaging Market in Poland in 2009],
  http://www.plastech.pl/wiadomosci/artykul_2972_1/Rynek-opakowan-w-Polsce-w-2009-r
- Materials of Polish Chamber of Packaging,
- Materials of Polish Packaging Research and Development Center,
  http://www.cobro.org.pl/pl
- http://www.taropak.pl/pl/
- http://www.pakfood.pl
- http://www.portalspozywczy.pl