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The Competitiveness of Poland on the Environmental Products and Services Market

Abstract

The aim of the paper is to present main aspects related to the characteristics of the market of environmental goods and services as one of the most potentially fast developing markets in the world economy (among such markets with similar size as, the pharmaceuticals and information technology markets). The paper will also examine some effects of environmental measures on market access within the multilateral liberalization process.

This is a very positive phenomenon in this age of ever increasing attention paid to the implementation of principles of sustainable development as well as decreased barriers for improving access to developing markets in the case of both economically highly developed countries and in developing countries. The elimination of trade barriers in foreign trade for goods and services also increases the efficiency of the world economic system by enabling countries to specialize in those sectors in which they possess economic advantages, which includes those sectors in which they possess favorable natural environmental conditions. The analysis of these goods and services is related also to some regulations of the Committee for Trade and Environment of the WTO with special reference to conclusions of the Fourth and Fifth Ministerial Conferences in Doha and Cancun.

Poland has relatively small, but still growing position in the analyzed market. As a member of the European Union, Poland should side with an acceleration in negotiations relating to the quick opening up of environmental services markets within the framework of the Doha Round.

1. Characteristics of the market of environmental goods and services

The **environmental goods and services market** is among those world markets that has demonstrated one of the highest growth rates in demand over the past ten to fifteen years. Its volume was assessed at approximately USD 518 billion in the year 2000 and projections for the year 2010 assume its growth to approximately 600 billion (Environment Business… 2004, pp. 36). The low and irregular share of foreign trade in environmental services and world export in environmental services over various years is at a level of barely 0.3%–0.4% of what is produced. For comparison, world exports in environmental products is approximately 20% of their production. This shows a high disproportion in the trading of environmental products between its products and services sections.

The **environmental industry** (i.e. industry "working" for environmental protection) was characterized by an average growth rate of more than 10% over the past ten to fifteen years. However, the dynamics of its growth in the highly developed countries had a significantly lower rate, which barely amounted to approximately 1.6%–2%. At the same time, the growth rate in developing countries was at a level of approximately 7%–8%. Analysts expect the expansion of industry working for environmental protection as well as of the environmental services sector to a volume of more than USD 600 billion by the year 2010. Projections show that such growth will be particularly characteristic of those countries and will amount to approximately 8%–12%. Compared with other markets, it may be stated that the environmental products and services market is not as large as the steel or agricultural markets. However, its size is comparable with the pharmaceutical or information technology markets. The environmental products market encompasses three main segments-equipment (technical equipment), environmental services, and natural resources. Technical equipment obviously encompasses the most advanced technologies, while environmental services include simpler, albeit more common ones. The predicted growth of more than 15% in the sales of environmental services over the past decade is an additional approximately USD 42 billion increase in demand on the world market providing employment for approximately 1–2 million workers. It is the highly developed countries that are the largest producers of environmental services (United States – approximately 38% of the world market, Japan – approximately 18%, and Germany, Great Britain, France, and Italy). A mere approximately 2% make up the share of Eastern Europe (inclusive of the European part of the CIS), where the share of Poland is between 0.3% and 0.4% (Wysokińska 2009, pp. 941-948).

The environmental markets in highly developed countries are extremely competitive. They have an exceedingly specialized consumer rights protection base. However, they are experiencing low or even negative growth in many sectors and are very "sensitive" to economic cycles. Environmental regulations are among the most important of market factors. The capacity to produce environmental products and services is growing dynamically in many developing countries primarily thanks to collaboration with established companies as well as due to increased demand on the internal market. Nevertheless, little data corroborate the fact that this is also reflected in export.

Present barriers in trade, understood as what are known as "bound tariffs," which are tied to many capital–intensive goods, serve as the base for the rendering of services in the area of waste management. They are low in highly developed countries (below 3% for products found on the list of OECD countries). Many developing countries have their customs rates set a relatively high levels—10% to 20%. In certain cases the tariffs are exceptionally high (Wysokińska 2005). In practice, the import of environmental products and services may benefit from many incentives. Technical regulations provide support in adapting environmental products and services to environmental requirements. The dearth of uniform environmental requirements on various national markets is a significant extra–tariff barrier. It is especially standards and certification that have an impact on trade in environmental products and services. On the other hand, trade in niche products searching for new markets may be hindered as a result of a lack of appropriate standards for such products. Thus, imported environmental technologies should be tested and certified by local authorities on individual markets (Vikhlyaev 2004, pp. 36-39).

2. Liberalization process within the WTO-the role of Multilateral Environmental Agreements

Supra–national regulations relating to trade that include requirements taking into account aspects of environmental protection are encompassed by the **Multilateral Environmental Agreements** (MEA). This particularly pertains to non–discrimination in trade and transparency in exchanges. The gradual removal of tariff and extra–tariff barriers restricting trade in light of WTO regulations occurs simultaneously with the support and promotion of environmental protection within the strategy of sustainable development. WTO regulations relating to transparency in exchange create conditions for complementarity of trade policy and environmental protection policy. They provide a basis for analysis of product labeling and packing processes in line with environmental requirements as well as assessments by WTO experts as to whether they play a part in establishing new restrictions in international trade. Similar requirements also relate to products tied with merchandise safety and health protection as well as with respect to those WTO regulations that guard against the development of barriers restricting international trade. The integration of trade and the environment with respect to developing countries is one of the priority areas within the framework of sustainable development strategies. Intensive ongoing debates as well as pilot projects on regional and national levels are leading to evolution in actions as well as to initial visible results in this area. It is becoming clear that the integration of trade and the environment necessitates a concrete linking mechanism coupling various aspects on a national and international activity level.

In connection with the Report from the 5th Session of the WTO Ministerial Conference in Cancun, which continued work launched within the framework of the regular sessions of the Committee on Trade and Development (CTE) in the period between the 4th WTO Ministerial Conference in Doha and the 5th in Cancun, it is stated that improved market access for developing countries is a key objective in implementation of sustainable development. Attention is called to the fact that in light of the Principles of Rio de Janeiro (Rio Principle 11 4th), environmental standards and priorities should in particular mirror the environmental and developmental context to which they refer, where standards as applied by certain countries may result in improper and unjustified economic and social costs for others, especially developing countries. Small and medium businesses are particularly "sensitive" to their application.

Many WTO member states call attention to the fact that environmental and health protection legitimize the integration of environmental and trade policy and that countries have the right to introduce their own appropriate level of environmental protection in line with such objectives. However, it is noted that environmental standards should also influence exports. Thus, the aim of any action should not be the lowering of these standards, but rather facilitating adapting to them by exporters. (In this case, technical assistance, support of competitive capacity, and the transfer of technology serve a key role in helping exporters from developing countries in adapting to standards and implementing appropriate production methods.) Many WTO members put particular weight on identifying trade potential for sustainable growth during discussions on future directions of development. The Committee on Trade and Development (CTE) should point to incentives and instruments supporting developing countries in the process of identifying products and developing export markets for environmentally friendly products in areas where many of these countries achieve a comparative advantage (Wysokińska 2009, pp. 944).

3. Environmental market in Poland in comparison to other European countries

***Products fostering environmental protection*[1] have gradually increased their share in total trade turnover in Poland** from approximately 3% to 4.5% on the side of exports and from 5% to approximately 7% on the side of imports. These changes were particularly noticeable in the European direction (Wysokińska 2009, pp. 944).

In its turn, import growth in Poland was even greater. Over the examined period it increased from USD 2.630 million in the year 2000 to USD 6.058 million in the year 2005. In the direction of imports from the European Union, growth went from USD 2.001 billion to USD 4.766 billion. The increase in share of products fostering environmental protection in Polish imports was even greater and amounted to an increase from 5.4% in the year 2000 to 6.0% in 2005 in overall imports, and growth from 6.7% to 8.2% in imports from the European Union. This indicates growing interest in Poland in international trade of products fostering environmental protection, which is a very positive phenomenon in this time of implementation of the Sustainable Development Strategy and the gradual lowering of barriers so as to improve access to developing markets of environmental products and services in both highly developed and developing countries.

A sales volume at a level of **USD 169–179 billion** characterized the **world environmental services market** over the years 1999–2003. World product over this period amounted to approximately USD 169–178 billion, while trade in environmental services was at a level of approximately 0.3–0.4 of the share in world service production. This put its value at a level of from USD 495 million to 654 million on the side of exports and from USD 519 million to 7159 million on the side of imports.

The world environmental services market was dominated by the economically highly developed countries, including mainly the countries of Western Europe that have a total share of approximately 40% over the examined period, with a growing tendency up to the year 2000. From among this group of

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[1] Products fostering environmental protection were classified into three basic groups: 1) Products and services related to waste management, 2) Cleaning technologies and products, and 3) Products relating to managing processes preventing the creation of pollution. More on this topic may be found in Wysokińska Z., "The International Environmental Goods and Services Market …," op cit., p. 943.

countries, the share of the European Union was at a level of 38.8% in 2002, while the respective share of EFTA was 2%. From among the countries of the European Union, of greatest importance in terms of share in the world environmental services market, main positions were occupied by countries such as Germany (approximately 9%), Great Britain (approximately 8%), France (approximately 6%) Italy and the Netherlands (approximately 4%, each), and Denmark (approximately 3%). Important positions in the world environmental services market from among the non–European countries of the OECD were occupied by such countries as the United States (approximately 28%) and Japan (approximately 13% with a slightly downwards tendency over the whole of the examined period). Central and Eastern Europe as well as the European countries of the CIS held a total approximately 2% share in the volume of the examined market, where the share of the countries of Central and Eastern Europe was at a level of approximately 1.4% in the year 2002 and had a strongly growing tendency over the whole of the examined period (1999–2002). The lowest position from among the countries of Central and Eastern Europe was occupied by Poland (approximately 0.43% in the year 2002), followed by the Czech Republic (approximately 0.37%) and Hungary (approximately 0.30%)), where all three had a growth tendency in their shares over the analyzed years.

As can be seen from the conducted analysis, the share of trade in environmental services in the production of environmental services is relatively small and does not exceed 0.4% of world trade. Total world exports in environmental services amounted to USD 654 million in the year 2002, with a systematic growth tendency over recent years (from a level of USD 495 million in the year 2000). Western Europe held an 84% share in world exports and an 86% share in world imports in these services. The share of the United States barely exceeded 3% while for Japan the figure was approximately 1.3% on the side of exports (with a downward tendency in the case of both countries) and approximately 2.5% and approximately 2%, respectively, on the side of imports (with a downward tendency for Japan and growth in share for the United States). Among the countries of the European Union, which holds a 70% share in world exports of environmental services, France was dominant (a 25% share in world exports), followed by the Netherlands (a 16% share) and Belgium (a 12% share). The EFTA countries (with a dominant position held by Switzerland) held a 14% share in world exports of environmental services. The specified countries of Western Europe were also significant importers of environmental services, which bears witness to the high level of advancement of intra–industry trade in environmental services in this area. Central and Eastern Europe as well as the European countries of the CIS held an approximately 3% share in world exports and an approximately 2% and 1% share, respectively, in world imports of environmental services, with a simultaneous significant growth tendency on the side of exports. A strongly growing share in the export of these services was also noted in Estonia, which achieved 0.72%. Among the countries of Central and Eastern Europe, the greatest share in exports was demonstrated by the Czech Republic (0.98%), followed by Poland (0.6%) and Hungary (0.5%).

Two major groups may be identified on the environmental services market in Poland—basic services for the environmental sectors and environmental cluster sector services. The former group includes sewage management and water protection, where this sector includes water distribution services by pipelines, excluding hot water (PKWiU Polish Classification of Products and Services, Section 41) and sewage management (PKWiU, Category 90.00.1), waste management, including the disposal of garbage and wastes (PKWiU, Category 90.00.2), contract–based metal waste and scrap processing (PKWiU, Section 37), wholesale and retail trade in wastes, scrap metal, and other materials for recycling (51.57.10, ex51.18.12, ex52.48.12), snow removal, etc. services (PKWiU, Category 90.00.3), and storage services (PKWiU, Sub–category 63.12.12). The latter group includes environmental research and development services, advisory services, contracts and environmental engineering, analysis services, data collection, estimates, construction, transportation, and other services (including spatial planning services).

Poland's share in the world services market oscillates in the area of 0.4% to 0.5%. The share of environmental services exports measured on the basis of the balance of payments is at a similar level. Imports are at a level in the area of 0.15% to 0.20%, however, the positive trade balance calculated only in the area of basic sectors provides USD 1 to 2 billion annually. If environmental cluster sectors are added to this as well as those for which there is no detailed data in this area, then the balance of turnover in environmental services may reach a level of 30% (approximately) more, although for research and development, design, and engineering services the balance will be negative.

Analysis of the Polish market for environmental services was conducted in line with European Union propositions for modifications of the GATS/WTO classification system because it contains the entire classification and is its expansion modernized by almost a decade. It provides for the subdivision of services into basic sectors like the W/120 GATS/WTO classification system, but it allows for a more accurate disaggregation of environmental cluster sectors, accounting for a single aspect of the activities of those sectors in the area of environmental designations.

The export of environmental services by companies in Poland has been rising, where growth in the year 2001 as compared to 2000 amounted to 36.3 percentage points, while in 2003 as compared with 2002 is almost doubled and amounted to 66.9 percentage points. The volume of environmental services exports was very small over the whole of the analyzed period, however. Growth in exports in the environmental sectors is about one–third greater than growth in their sales on the domestic market in terms of average percentages. The rate of growth of exports is, in general, satisfactory, with an average of over one dozen percentage points per annum. However, this applies to too small an amount and at this time does not have any significant impact on economic results.

Analysis of the collective economic results of business entities rendering environmental services in Poland demonstrates that among all the entities providing environmental services, profit–making companies were dominant during the examined period (from approximately 73% in the year 2000 to 72% in the year 2003). The share of companies achieving good financial results was high among large– and medium–sized companies as well as small ones. However, it was among the ones considered large in terms of numbers of employees that is was significantly higher. Both in public sector entities and private ones those that achieved a positive financial result were dominated by companies providing environmental services, but the share of private companies in this group was greater. A less positive phenomenon was that in both analyzed groups (though to a lesser extent in the private sector), the share of entities making a profit over the analyzed 2000–2003 period decreased.

As can be seen from the analysis presented in the report, both the environmental market and in particular the environmental services market are a part of markets having the greatest development potential in today's world economy. This is borne out by the high rate of its development, especially in the countries of systemic transformation and developing countries. Although presently still holding a relatively small share in this dynamically developing market, the rate of change in this area found in those countries over recent years allows their placement among its potentially growing participants.

Environmental market analysts expect the expansion of industries working for environmental protection as well as the environmental services sector to a size of more than USD 600 billion by the year 2010. This is when the share in growth potential of the systemic transformation countries of Central and Eastern Europe as well as the countries of the CIS, mainly Russia, may gradually become more important in the long term. It is expected that this growth will be particularly characteristic of environmental cluster developing countries as well as systemic transformation ones and that the growth rate of these countries will amount to approximately 8%–12%.

Although the countries of Western Europe and other highly developed countries hold dominant shares in the world environmental services market, they have been facing a steady decline in the development of exports of these services over recent years. Due to growing operating costs in the environmental services sector in those countries, which is mainly the result of their high salary levels, it may be expected that in the upcoming years there will be greater expansion and investments by Western European companies (mainly from the countries of the European Union such as France, the Netherlands, and Belgium as well as Switzerland) as well as from other highly industrialized economies in both developing countries and in countries that have recently undergone systemic transformation. These particularly include countries from the Central and Eastern Europe region, including mainly the three greatest producers of environmental services in this area, which includes Poland, the Czech Republic, and Estonia, as well as Russia.

The better and continuously improving access to the world environmental market is witnessed by the previously carried out liberalization of trade within the framework of OECD countries in line with WTO requirements as well as in the significantly slower, but nevertheless present, rate of liberalization taking place in trade in developing countries.

The market volume of developing countries in the area of environmental services may be estimated as being an approximately 8.5% share of the world market, with a steady growth tendency over recent years. Their share in world exports and imports of these services oscillated around the 6%–7% mark in world trade while in world environmental services production in exceeds an 8% share. This shows the growing involvement of both domestic environmental service providers in these countries and the even greater degree of growth in foreign investments (from the highly developed countries) in this sector, potentially one of the most dynamically developing sectors of the world economy.[2]

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[2] These conclusions are derived from an expert report entitled "Ocena szans Polski na międzynarodowym rynku wyrobów i usług środowiskowych" [An assessment of Poland's chances on the international environmental product and services market] developed by the author for the Ministry of the Economy in 2007.

4. Conclusions

As can be seen from the presented analysis, both the environmental products market and the environmental services market are among markets with the greatest development potential in today's world economy.

This is borne out by the high rate of their development, especially in the systemic transformation and developing countries that, albeit still holding a relatively small share in this dynamically developing market, demonstrate a rate of change in this area allowing these countries to be placed among its potentially growing participants.

As a member state of the European Union, Poland should make an active entry with its production and sales in these dynamically developing segments of the market and take advantage of available benefits, simultaneously playing a role in improving the state of the natural environment in countries of the world most in need of such products and technologies.

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Streszczenie

KONKURENCYJNOŚĆ POLSKI NA RYNKU TOWARÓW I USŁUG ŚRODOWISKOWYCH

Celem artykułu jest prezentacja głównych aspektów związanych z charakterystyką rynku towarów i usług środowiskowych, jako jednego z najszybciej rozwijających się rynków w gospodarce światowej. (zbliżonego pod tym względem do rynku farmaceutycznego oraz rynku technologii informacyjnych i komunikacyjnych). W artykule analizowane są wybrane efekty mierników środowiskowych z punktu widzenia dostępu do rynku w ramach ponadnarodowych procesów liberalizacyjnych

Pozytywnym zjawiskiem jest przywiązywanie coraz większej uwagi do kwestii zrównoważonego rozwoju jak również dążenie do zmniejszenia wysokości barier ograniczających dostęp do rynków w krajach rozwijających się .Stopniowa eliminacja barier na towary i usługi środowiskowe w handlu zagranicznym zwiększa efektywność światowego systemu ekonomicznego pozwala na specjalizację w tych sektorach, w których osiągania jest przewaga konkurencyjna i w których posiadane są naturalne sprzyjające warunki do rozwoju. Analiza towarów i usług środowiskowych odnosi się do regulacji rekomendowanych przez Komitet Handlu i Środowiska Światowej Organizacji Handlu (WTO), ze szczególnym uwzględnieniem postanowień IV I V Międzynarodowej Konferencji Ministerialnej w Doha i Cancum.

Polska ma stosunkowo niewielką, ale rosnącą pozycję w analizowanym rynku. Jako kraj członkowski Unii Europejskiej, powinna być zainteresowana szybkim otwarciem rynku usług środowiskowych w ramach Rundy Doha.