THE IMPORTANCE OF THE IMPLEMENTATION OF SUSTAINABLE DEVELOPMENT FOR THE COMPETITIVE POSITION OF A NATIONAL ECONOMY ON THE EXAMPLE OF POLAND

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Abstract
The competitive position of a national economy remains one of the factors influencing its perception in the global economy. The implementation of the sustainable development (SD) concept seems to be one of the essential factors conducive to an improvement of its competitive position. This is particularly important in the case of such an economy as Poland, where the implementation of the social, environmental and economic aspects of SD guarantees progress, which is crucial for the growth of the national economy.

Key words: *the competitive position of a national economy, sustainable development, Poland*

Introduction

The difficult economic situation, a consequence of the prolonged crisis, has led to the deterioration of economic conditions in many countries and regions. A number of European economies are struggling with the imbalance on the labour market, suffering from increased unemployment, in particular among young people. Another problem which affects the less developed economies is also a persistently low economic growth rate and a resultant low level of innovation. This is reflected by the lack of the improvement in an economy's competitive position, as in the case of Poland.

It is important to emphasise that sustainable development pursued within the EU strategy defines quantitative targets for Poland. The achievement of these targets should contribute to the improved situation in a number of categories which overlap with selected competitiveness pillars.

The paper attempts to evaluate the relation between the competitive position of Poland's economy in selected competitiveness scoreboards and the progress made in the implementation of sustainable development measured with the indicators defined in the Europe 2020 Strategy.

The primary thesis is the assumption that the implementation of SD goals, reflected by positive changes in the indicators used to monitor them, will support the competitive position of Poland's economy.

The study uses comparative and descriptive analysis methods.

1.1. Sustainable development as an alternative concept of the development of national economies in the conditions of the global economy

One of the first international definitions of Sustainable Development (SD) emerged in the 1970's as a result of the work of the UN Conference. The United Nations Environmental Programme, UNEP, defined SD as "such a course of the inevitable and desirable economic development that does not significantly and irreversibly disturb the environment of human life, does not lead to the degradation of the biosphere and reconciles the laws of nature, economy and culture. Since SD balances the chances of access to natural resources for the present and future generations, it is the growth stemming from human activity conducted in harmony with nature" (Bartkowiak 2010).

Since the 1970's a great number of other definitions have been formulated and the differences between them involve, for example, the scope of the concept. One of them focuses on two aspects. The ecological aspect (eco-development) is described as a process of limiting the pressure on the environment and improving its condition through the greening of economic processes and the implementation of integrated economic systems. On the other hand, sustainable development in its

civilisation dimension is seen as a process of seeking, testing and implementing new forms of economic development, new technologies, new forms of social communication and new forms of non-economic activity in society (Górka, Poskrobko, Radecki 2001). When seen as an alternative form of economic development under the threat of natural resources depletion, deepening disproportions between countries and regions, and the progressing degradation of the natural environment, SD was comprehensively defined by B. Fiedor. The author pointed out that SD involved no reduction in any of the components of the vector of socio-economic objectives connected with economic growth and the maximization of net benefits from economic growth, while at the same time the utility and quality of natural resources were preserved in the long run. Furthermore, the consumption of material goods and services should be limited to the level which would be acceptable from the ecological point of view – in order to maintain the desired quality of the environment for future generations and provide access for all people (Fiedor 2002).

The approach to sustainable development as an alternative form of development corresponds to treating it as the economic development that is socially desirable, economically justifiable and ecologically acceptable (Dubel 1996).

It is worth noting that the Report of the World Commission on Environment and Development, compiled under the supervision of Bro Harlem Brundtland n 1987, defined the term sustainable development, introduced it into wide usage and gave an international character to this groundbreaking vision of development. Moreover, it formulated three areas where the measures being undertaken should be integrated, since only an integrated approach guaranteed the improvement in the quality of life for all people and ensured the rational consumption of natural resources. The priority areas embraced economic growth, equal distribution of benefits, protection of the environment and natural resources, and social development (UNEP 1987).

Subsequent international agreements express the conviction that global-scale initiatives are necessary in order to achieve sustainable development. However, measures facilitating the achievement of its goals require consistent coordination on an international scale and involve costs which are even more difficult to incur during the crisis than at the time of prosperity.

1.2 The competitive position of a national economy according to selected competitiveness scoreboards

Competitiveness is one of the concepts which lack a uniform definition (Olczyk 2005). This is because economic competitiveness can be analyzed on different levels (Flejterski 1984, Misala 2011):

- micro – products (or product groups) in relation to similar products manufactured by the competition,
- mezzo – exports from a particular industry (sectoral competitiveness),
- macro – international competitiveness of a national economy
- mega – international competitiveness of households in a group of countries,
- mega – international competitiveness of regional blocs.

The category of macro-competitiveness has caused controversy and debate for many years (Wziątek-Kubiak 2004). This has even led to doubts as to whether it is advisable to continue research on the competitiveness of national economies (Krugman 1994).

The concept of the international competitiveness of a national economy is defined by both individual authors and on the level of international organizations. Based on a number of definitions, macro-competitiveness can be perceived as:

- the capacity of a country for long-term, effective growth in an open economy (Bieńkowski 1993);
- the ability of an economy to benefit from the participation in the international division of labour to the largest possible extent, preferably more than partners (Misala 2005);

- the capacity for achieving dynamic economic growth and making goods and services which are accepted on the global market under the conditions of a free and reliable market, while at the same time generating long-term growth in real income in the population (Stankiewicz 2002);
- the capacity of a country for achieving and maintaining sustainable growth in the standards of living of citizens and their ability to find/keep employment in the conditions of an open economy (Trichet 2008);
- the industrial competitiveness which stems from a country's capacity for maintaining the balance between imports and internal production, while this balance is in line with a country's exports (UE – Lubiński 1995);
- the synthetic measurement of the strengths and weaknesses of a country's economy which allows for determination of the position of its goods and services on international markets (OECD);
- the degree to which a country generates, while being and remaining exposed to international competition, relatively high factor income and factor employment levels (OECD 1997).

The determinants defining the competitive position of individual countries have become the subject of analysis of two co-operating international research centres – the International Institute for Management Development – IMD in Lausanne – and the World Economic Forum – WEF in Geneva. The varied evaluation of particular countries' competitiveness is reflected in their scoreboards classifying economies according to a number of different criteria. Each scoreboard incorporates a set of determinants which, in the opinion of its authors, have the strongest impact on the competitive position of individual economies in the global economy. Accordingly, the scoreboards should be studied in a complementary manner.

Table 1: WCI according to selected factors – Poland 2009-2013

Year	Overall competitiveness	Economic performance	Government efficiency	Business efficiency	Infrastructure
2009	44	39	44	50	39
2010	32	24	36	38	36
2011	34	31	35	41	34
2012	34	30	36	39	36
2013	**33**	**36**	**27**	**35**	**36**

2013	Domestic economy	International trade	International investment	Employment	Prices	Public finance	Fiscal policy	Institutional framework	Business legislation	Societal framework	Productivity & efficiency	Labour market	Finance	Management practices	Attitudes and values	Basic infrastructure	Tech. infrastructure	Scientific infrastructure	Heath and environment	Education
	26	26	56	48	17	31	36	28	17	25	29	45	18	26	53	36	37	39	39	23

Source: Based on World Competitiveness Online
http://www.worldcompetitiveness.com/OnLine/App/Index.htm (12.03.2014)

The oldest scoreboard which offers the comparative analysis of countries' competitiveness is the scoreboard developed by Lausanne-based IMD since 1989. IMD defines the international competitiveness of an economy as a country's capacity for creating added value, thus increasing national wealth through the sound management of resources and processes, attractiveness and aggressiveness, taking into account the local and global dimensions and integrating these elements into the uniform consistent socio-economic model (IMD 2005).

At present, the scoreboard analyses almost 60 economies selected based on their role in the global economy and the accessibility of reliable and comparable data, both statistical and survey data. IMD distinguishes four groups of factors affecting competitiveness, each group containing five elements, used to compile the World Competitiveness Yearbook (WCY), which is an important source of information on the competitive position of a country compared with other economies.

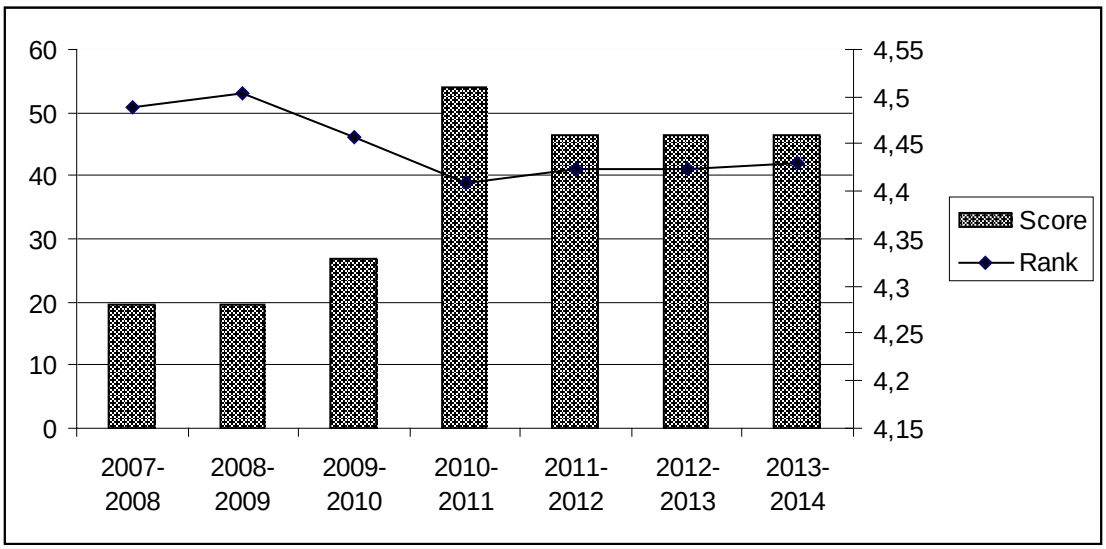
Table 1 presents the indicators covered by WCY and the results for Poland in the years 2009-2013. The data indicates that Poland maintained the position obtained in 2010. On the other hand, the position deteriorated considerably in terms of economic performance (a drop by 12 ranks in the years 2010-2013), including employment and international investment. Although IMD analysts portray Poland as a country which shows dynamism in improving its competitiveness, low scores on these categories raise concern and doubts about Poland's competitive position in the near future.

WEF define competitiveness as the set of institutional policies and factors that determine the level of productivity of a country (WEF 2009). The Global Competitiveness Index (GCI) , developed by WEF, is based on 12 pillars classified into three major subindexes: basic requirements, efficiency enhancers, and innovation and sophistication factors (WEF 2007).

The analysis of the GCI value for Poland and its ranks in scoreboards in the years 2007-2014 indicates a considerable increase in the GCI value in the years 2009/2010 – 2010/2011. Simultaneously, the position of Poland's economy moved up in the scoreboard by 7 ranks in this period. In the following years, the GCI value decreased, the competitive position stabilized and Poland ranked 41-43, which is confirmed by the data presented in Figure 1.

Based on the criteria adopted by WEF, Poland entered transition from stage 2 – efficiency driven – to stage 3 – innovation driven. Pro-efficiency factors are important for the economies the growth of which is primarily derived from efficiency, for example Poland with the GDP per capita reaching between USD 9,000 and USD 17,000.

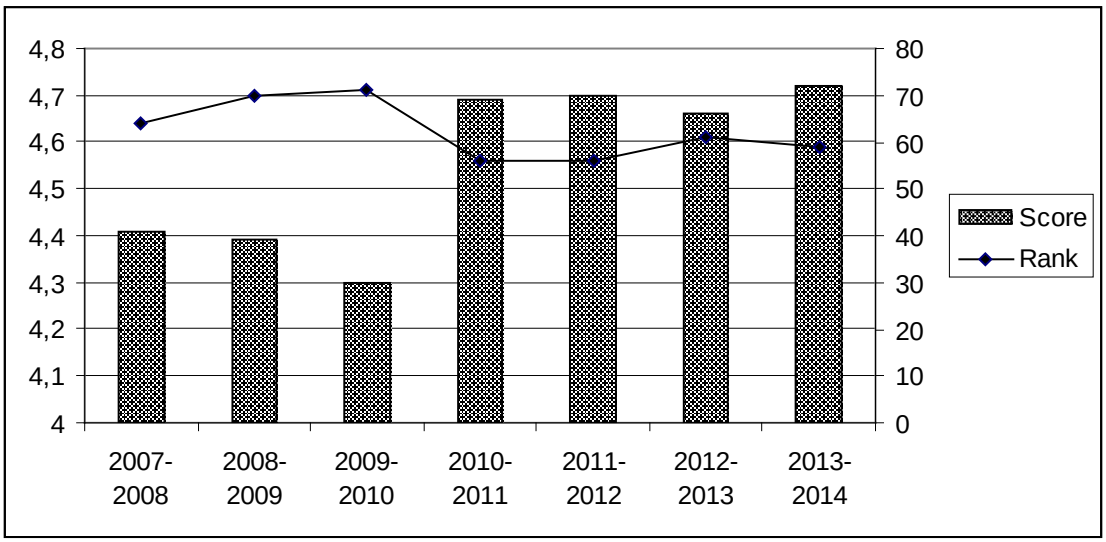
Figure 1: GCI – Poland 2007-2014



Source: Based on Global Competitiveness Report, WEF, Geneva 2007, 2008, 2009, 2010, 2011, 2012, 2013

Despite a significant increase in the performance of the basic requirements subindex since 2009/2010, Poland has ranked as low as 59 (see Figure 2). This implies that in the analogous period this subindex change dynamics must have been considerably higher in other countries. The analysis also indicates a definite deterioration both in the rank and the score in the institutions and investment pillar, which may have an adverse effect on the competitive position of Poland's economy in the following years (see Table 2). On the other hand, an improvement by 7 ranks in the macroeconomic environment pillar should have a pro-competitive character.

Figure 2: Basic requirements subindex – Poland 2007-2014



Source: Based on Global Competitiveness Report, WEF, Geneva 2007,2008,2009,2010,2011,2012,2013

Table2: Basic requirements subindex – pillars 1-4

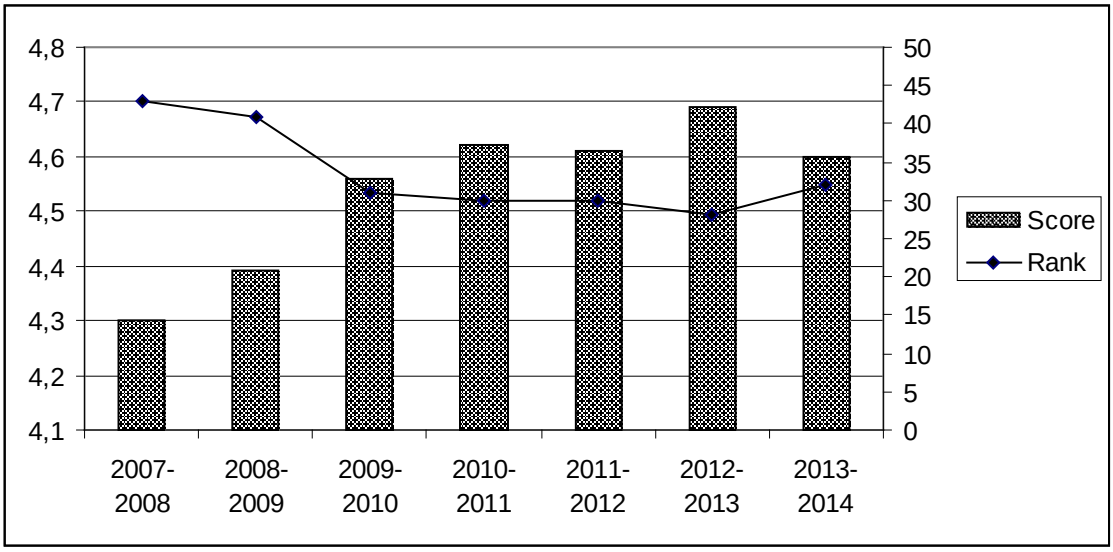
	1.Institutions		2. Infrastructure		3. Macroeconomic environment		4. Health and primary education	
	rank	score	rank	score	rank	score	Rank	Score
2007-2008	82	3.65	80	3.03	56	5.01	36	5.96
2008-2009	88	3.63	96	2.77	50	5.25	39	5.90
2009-2010	66	3.90	103	2.88	74	4.56	35	5.88
2010-2011	54	4.18	72	3.76	61	4.7	39	6.13
2011-2012	52	4.17	74	3.87	74	4.71	40	6.06
2012-2013	55	4.11	73	3.89	72	4.6	43	6.03
2013-2014	62	4.01	74	3.96	65	4.88	42	6.03

Source: Based on Global Competitiveness Report, WEF, Geneva 2007, 2008, 2009, 2010, 2011, 2012, 2013

As Poland is classified as a country in transition, pro-efficiency indicators are the most important and should be studied in more detail. The efficiency enhancers subindex fluctuated within the range of

4.56-4.69 in the years 2009/2010 – 2013/2014. As a result, Poland's rank moved between 28 and 32, as is shown in Figure 3. The detailed analysis of individual pillars of this subindex reveals a very high rank in the market size pillar. In contrast, the indicator in the labour market pillar has significantly declined and its value has fallen from 4.48 to 4.2 in the last two years, pushing Poland down from rank 57 to 80 (see Table 3).

Figure 3: Efficiency enhancers subindex – Poland 2007-2014



Based on Global Competitiveness Report, WEF, Geneva 2007, 2008, 2009, 2010, 2011, 2012, 2013

Table 3: Efficiency enhancers subindex – pillars 5-10

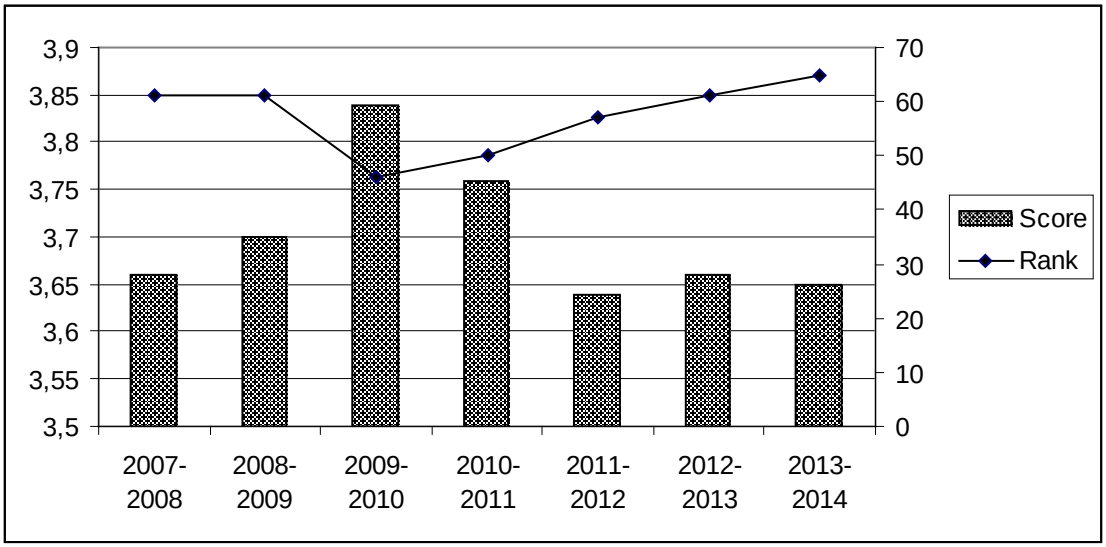
	5.Higher education And training		6.Goods market efficiency		7.Labor market efficiency		8.Financial market development		9.Technological readiness		10.Market size	
	rank	score	rank	score	rank	score	rank	score	rank	score	rank	score
2007-2008	35	4.62	69	4.12	49	4.44	64	4.32	51	3.44	22	4.88
2008-2009	34	4.64	65	4.22	62	4.40	68	4.28	46	3.79	20	5.0
2009-2010	27	4.82	53	4.34	50	4.54	44	4.61	48	3.97	20	5.07
2010-2011	26	5.0	45	4.38	53	4.58	32	4.66	47	4.02	21	5.08
2011-2012	31	4.95	52	4.36	58	4.48	34	4.6	48	4.18	20	5.08
2012-2013	36	4.92	51	4.39	57	4.48	37	4.59	42	4.66	20	5.12
2013-2014	37	4.88	57	4.34	80	4.20	38	4.54	43	4.47	19	5.14

Source: Based on Global Competitiveness Report, WEF, Geneva 2007, 2008, 2009, 2010, 2011, 2012, 2013

Evidently, the increased performance of the indicators in the efficiency enhancers pillar seems to be a prerequisite for the improvement in Poland's competitive position in the coming years. This is due to the fact that Poland's economy is in transition from stage 2 to stage 3. The weight attributed to the efficiency enhancers in such countries reaches as much as 50%, whereas the weight for basic requirements is 20-40% and the weight for innovation and sophistication – 10-30%.

Another group of indicators is critical for the competitive position of the countries in the highest stage of development. Consequently, it is hardly surprising that in the entire examined period Poland's rank in terms of innovation and sophistication is relatively low (see Figure 4). This subindex, however, has gradually been falling since 2009/2010, which has translated into a lower rank achieved in this group of pillars in recent years.

Figure 4: Innovation & sophistication subindex – Poland 2007-2014



Source: Based on Global Competitiveness Report, WEF, Geneva 200, 2008, 2009, 2010, 2011, 2012, 2013

Table 4: Innovation & sophistication subindex – pillars 11-12

	11. Business sophistication		12. Innovation	
	rank	Score	rank	score
2007-2008	68	4.04	58	3.28
2008-2009	62	4.23	64	3.17
2009-2010	44	4.35	52	3.33
2010-2011	50	4.2	54	3.31
2011-2012	60	4.06	58	3.23
2012-2013	60	4.06	63	3.25
2013-2014	65	4.05	65	3.24

Source: Based on Global Competitiveness Report, WEF, Geneva 2007, 2008, 2009, 2010, 2011, 2012, 2013

Only meaningful and effective pro-innovation measures may improve Poland's competitive position in this area. However, financial costs which would be involved in their implementation cause that undertaking such measure is unlikely in the near future.

The analysis of the competitive position of Poland's economy in recent years does not reveal any significant changes or indicate any prospects for improvement. Moreover, both IMD and WEF scoreboards raise concerns about the negative situation in employment and labour market and the country's weakness in terms of innovation and international investment, which may adversely affect the competitive position of Poland's economy in the coming years.

1.2 Sustainable development as a new dimension in the competitiveness scoreboards of national economies

A certain ambiguity in the definitions of the competitive position of a national economy as well as the dynamic character of this category make it necessary to adjust it to changing conditions in the global economy. This is already happening and, for example, sustainable development has been embraced in the scoreboard published by WEF. WEF defines sustainable competitiveness as the set of institutions, policies, and factors that make a nation remain productive over the longer term while ensuring social and environmental sustainability (WEF 2013). Since 2012 the authors of the report has been making an attempt to adjust the GCI index with the social sustainability coefficient and the environmental sustainable coefficient.

The index fluctuates from +/- 5 to +/-20%. It should be noted that the countries enjoying the highest competitive position according to WEF, namely Finland, Sweden, Switzerland and Germany, in the last two years, have not only retained their leadership in the scoreboards, but their position has strengthened considerably due to the inclusion of the sustainability coefficient. In the case of the leaders of the rankings, the change resulting from the adjustment by the sustainability coefficient was the greatest and amounted to over 15%.

As for Poland, the adjustment by the competitiveness coefficient has not affected its competitive position, which remained within the range of +/-5%. Advancements in sustainable development have contributed to the improvement in the competitive position indicator. This seems to be an important factor that can have a positive impact on the competitiveness index also for Poland's economy.

This is becoming increasingly significant because Poland, an EU member state, implements the Europe 2020 Strategy, which embraces SD with its specific objectives and goals.

1.3. Europe 2020 Strategy and its implementation on the example of Poland

It should be noted that the Europe 2020 Strategy remains a kind of continuation of the Lisbon Strategy implemented from 2000. The failed Lisbon Strategy called for turning the EU economy into the most competitive economy in the world by 2010, so the main focus was on competitiveness. On the other hand, the Europe 2020 Strategy aims for smart, sustainable and inclusive growth (KOM 2010). Its title does not directly refer to competitiveness. The prime goal of the Europe 2020 Strategy is to achieve multi-faceted sustainable development in the EU member states, including the enhanced competitiveness of the bloc on a global scale, which confirms a tangible connection between these dimensions in the process of evaluating the national economies. The Europe 2020 priorities involve intelligent growth, i.e. the development of an economy based on knowledge and innovation, inclusive growth, in other words building the economy enjoying high employment and economic, social and territorial cohesion, and, finally, sustainable growth connected with the smart and effective consumption of resources, more environmentally friendly and competitive. The goals of the Strategy clearly indicate that competitiveness is only one of its elements.

In terms of quantifiable objectives defined in the Europe 2020 Strategy, The European Commission (EC) has identified five quantitative targets: employment, research and development, climate change and energy, education, poverty and social exclusion. The targets are translated into indicators that, when achieved, will confirm the successful implementation of the Strategy. At the same time, the EU

member states have defined targets on a national level, taking into account the current economic and social situation and the scale of changes that can be made. Recommendations addressed to particular countries are formulated in the European Commission proposals and approved by the Council. On the national level, initiatives aiming to implement the Strategy are set out in the National Reform Programmes, Convergence Programmes and Stability Programmes.

The evaluation and measurement process takes into account such indicators that the successful implementation of the Europe 2020 Strategy facilitates the improvement in the competitive position of national economies.

Table 5. Selected indicators of the Europe 2020 Strategy and their values for Poland in the years 2007-2012

Target	Employment rate (20-64) in %	R&D expenses as % GDP	Final energy consumption* in mln t	Early leavers from education and training in %	The share of the population aged 30-34 years who have successfully completed university in %	People at risk of poverty or social exclusion in %**
EU 28	75	3	Increase in energy efficiency by 20% (368 m t)	10%	40%	----------
Poland	**71**	**1.7**	-------	**4.5%**	**45%**	----------
Indicators for Poland in the years:						
2007	62.7	0.57	61.8	5.0	27.0	34.4
2008	65.0	0.6	62.2	5.0	29.7	30.5
2009	64.9	0.67	61.2	5.3	32.8	27.8
2010	64.3	0.74	66.3	5.4	34.8	27.8
2011	64.5	0.76	63.9	5.6	36.5	27.2
2012	64.7	0.9	63.6	5.7	39.1	26.7
2013	--	--	--	5.8	40.0	--

** at million t of used fuel*

*** % of population with disposable income below 60% in relation to the national median*

Source:
http://epp.eurostat.ec.europa.eu/portal/page/portal/europe_2020_indicators/headline_indicators

The analysis of the quantitative targets set for Poland within the SD Strategy confirms that their values are still far from the ones defined in the National Reform Plans. It should be noted, however, that most of them improved in the years 2007-2012, which is presented in Table 5.

The EU member states which enjoy the most favourable SD indicators are Sweden, Finland and Denmark. These are also the countries which achieve the highest competitive position in the EU according to the scoreboards studied in this paper. Moreover, they rank high in terms of competitiveness in the global economy, which demonstrates the connection between a high competitive position and favourable indicators monitored within the SD Strategy. The correlation also explains why Poland has remained in transition for a few years and its economy has not experienced the improvement in its competitive position.

Conclusion

The prolonged economic meltdown in major economies repeatedly brings back the question whether it is possible to achieve sustainable growth and macroeconomic stability with less susceptibility to turbulence. The global nature of modern economy poses new challenges to its participants. Sustainable Development as an alternative development strategy is one of the ways to face up to these challenges.

The effectiveness of this development strategy is increased by a number of initiatives undertaken both within particular economies and on an international scale. This trend is reflected by many international agreements that will gradually contribute to the fulfilment of desired economic and social goals, if successfully implemented. The successful achievement of these objectives will bring welfare and prosperity to individual countries, higher standards of living to their citizens, while ensuring respect for the environment and accounting for the needs of future generations. For years, however, the implementation of international proposals on sustainable development has encountered serious difficulties which stem both from different national interests and the necessity to allocate substantial funds in order to pursue SD goals effectively. It is of great significance to recognize SD as the protection of the natural foundations of life. Hence, it should not be seen as a strategy "for better times" (Rogall 2010).

The analysis of the competitive position of Poland's economy according to the selected scoreboards indicates the lack of a significant increase in the indexes which would guarantee a substantial improvement in selected competitiveness pillars. Although during the early years of the crisis Poland did not suffer a decline in basic indexes, which was reflected in its improved competitive position, now the indexes have either decreased or remained stable on a relatively low level.

It is important for Poland's economy to fulfil the criteria defined in the Europe 2020 Strategy to a degree which will allow for a favourable comparison with other EU economies. The fact that a number of indicators within this Strategy correspond with the competitiveness pillars indicates the role that SD may play in improving the country's competitive position. This is becoming increasingly pressing as the competitive position is now sustainable-adjusted.

Initiatives supporting sustainable development not only should improve the situation in Poland's economy and stimulate its growth, but also positively affect its competitive position, which would enhance its image nationally and on a global scale and attract foreign investment. The inflow of capital and high technology seems to be a prerequisite to narrow the gap between Poland and other countries, the existence of which is confirmed by the country's performance in particular competitiveness pillars, in particular the innovation pillar, where Poland ranks lower and lower.

The improvement in Poland's competitive position, forecasted in 2012, has not been fulfilled, which increases the importance of initiatives aimed at sustainable development supported by the Europe 2020 Strategy, as they may reverse this negative trend and guarantee the development model desirable in the global economy.

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