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## THE POSITION OF POLAND'S ECONOMY IN THE ECONOMY OF THE EUROPEAN UNION IN 2003-2014

### INTRODUCTION

This paper offers an analysis of the position of the Polish economy in the economy of the European Union.<sup>1</sup> The aim of this analysis is to identify the changes in the role Poland played in the EU economy between 2003 and 2014. The year 2003 was the last year before Poland became a member state of the EU. This analysis focuses on the first 11 years of Poland's membership of the EU,<sup>2</sup> from a macroeconomic perspective. The two main questions asked are:

- Which changes were major in the light of the income convergence theory and the catch-up effect concept?
- What are the prospects of Poland's economy from this perspective, and what measures of economic policy can be applied to ensure that the changes are growth-stimulating and *per saldo* lead to a higher level of prosperity in the medium and long term?

The theoretical dimension here is not limited to the two theories mentioned above. It has been assumed that firstly, a brief, synthetic literature review is needed to allow the identification of theoretical inspirations which might contribute to an explanation of the processes investigated.

This analysis of the economies of Poland and the EU concentrates on selected aspects of the evolution of the Polish economy such as GDP changes, changes in exports and imports, and changes in inward and outward foreign direct investment (FDI). Exports of goods and services and changes in Polish outward FDI are viewed as the most important manifestations of the active internationalisation of Poland's economy, and imports and FDI inflows to Poland as the most significant manifestations of Poland's passive economic internationalisation.

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<sup>1</sup> This article focuses in the rank of Poland in the EU. The approach taken is the same as in two other publications of the author which focus on Poland's rank in global economy: Gorynia (2012), Gorynia (2014).

<sup>2</sup> The processes analysed here had their wider context, the main components of which were: globalisation, European integration, transformation continuation, global economic crisis, human development, and political situations. These are briefly referred to in the later part of this article.

In this short paper, the analysis presented is limited in terms of both its depth and the interpretations of the observed patterns. The discussion of the causes of the identified changes is also limited. The macroeconomic perspective has its limitations too. For example, the structural and spatial dimensions of the changes in Poland's economy are not discussed.

This paper includes tables which contain two sets of figures for the EU. In the first (EU 15–28) the figures refer to the actual EU members in the year in question. In the period analysed, the number of these members changed thrice (EU enlargements in 2004, 2007 and 2013). The second set of figures is based on the assumption that in every year analysed the number of EU members was 28. This makes the figures comparable in time for the same group of countries, and thus in the discussion below it is only the second set of figures that are considered.

#### THEORETICAL AND PRACTICAL ASPECTS OF THE RANKING OF ECONOMIES

Every national economy usually belongs to a set of economies which are similar to it in one way or another, and with which it is regularly compared. Economies are grouped considering their level of development or even their actual developmental phase, the dominant characteristics of their regulatory systems, their size (GDP, resources, etc.), their openness (internationalisation) and the like. Specific criteria for grouping economies also serve to distinguish emerging economies, transition economies, economies which together pursue economic integration (for instance, the EU member states) and so on. This paper focuses on the member states of the EU, and Poland specifically. The research question concerns the changing rank of Poland among this group of countries in a period of 12 years. Before the changes in question are presented and discussed, it is worth asking another question: What can various theories, concepts and trends contribute to an explanation and theoretical interpretation of the evolution of the rank of Poland's economy within the EU?

From a theoretical point of view the problem seems somewhat analogous to that of the transition of communist economies from the system of administrative (bureaucratic) regulation to the market economy system. In the early 1990s the transition problem had two dimensions: epistemological and practical. In its epistemological dimension it meant that there were no convincing arguments for the unavoidable fall of the communist economy. In the practical dimension there was a shortage of normative knowledge on the implementation of the transformation process with regard to changes to the regulation system, institutional restructuring and changes in the economic structure. Twelve years after Poland became an EU member state, a coherent, positive theory describing and explaining the changes which took place in the position of the Polish economy amongst other EU member states is still lacking. Similarly, no normative theory, including recommendations in the form of patterns or best examples to be followed and practical directives on the implementation of transformation, has

been offered. In other words, there is no canon of practical recommendations referring to the preferred directions of economic restructuring in a member state which before joining the EU transformed its communist economy to a market economy. It is worth noting that this underdevelopment of normative theories is at least partly rooted in the weakness of positive economic theories (description and explanation).

These observations lead to another question. Given this situation, how to carry out advanced theoretical research which will simultaneously allow one to draw practical conclusions with regard to the position of Poland's economy in the EU, emphasising the changes which took place over time?

It appears that pointing to theories and their most important assertions that refer in any way to the issue in question, and identifying areas of their possible convergence, may contribute to attempts at building a positive economic theory. The need to build a normative theory may be subordinated to making the (imperfect) findings of positive theories useful and, on the other hand, to drawing on assumptions of ideological systems and economic doctrines which are favourable to economic growth and productivity. In other words, in the case of both positive theory and normative theory it is highly likely that their present stage of development allows only for eclectic solutions drawing on various concepts. The building of a coherent theory is a huge challenge and task to be completed. The author of this paper is not driven by the illusion of "discovering" the best theory explaining the evolution of the rank of Poland in the EU, but by a desire to share the observation that a theoretical foundation, though highly fragmented, can be sought in various theoretical frameworks.

#### THEORETICAL FOUNDATIONS EXPLAINING THE CHANGES IN THE RANK OF POLAND'S ECONOMY WITHIN THE EU

As has already been noted, as yet no coherent theoretical concept has been developed which would create a conceptual framework concerning changes in the rankings of a relatively new member's economy within a grouping pursuing economic integration. However, research on this issue may be carried out from the viewpoints of various theories which do not concentrate on changes in an economy's rank, but – even if indirectly – touch upon issues related to the ranking. It can be underlined, as a preliminary point, that the positive foundation of such theories continues to grow and is diversified. The extent to which these theories are related to the present problem varies, and theorems are not always coherent and univocal. The theories also refer to different levels of economic phenomena and take into consideration different aspects of the functioning of economies.

Firstly, it should be noted that in the analysed period Poland's economy was subject to at least three important parallel and overlapping economic processes. *De facto*, they also had important political, social, legal, and other aspects. These processes were transformation, globalisation and integration. It appears that these were

the dominant processes in the socioeconomic changes in Poland in the last 25 years, including the period of Poland's membership of the EU which is analysed here. It should be noted that these processes were very complex and interdisciplinary, and that they were interwoven. This is why the search for a coherent theoretical concept covering those changes in an all-inclusive manner is futile. We deal with fragmentary theories covering a limited number of variables and aspects. In these theories, it is common to mix issues belonging to different levels of analysis (from macro to micro); also descriptive/explanatory aspects (positive theory) are interwoven with practical aspects (normative theory) and elements of future projection. The fact that there was a combination of multiple processes means that theories which try to explain them are fragmentary and of limited value.

The first process mentioned is transformation, which began in the early 1990s. There is no overall agreement on whether this process was completed (when?) or is still continuing. This means that a generally accepted definition of transformation is lacking. In the period analysed below, different manifestations of the transformation process were surely still present in the functioning of Poland's economy; it is true to say, however, that the relative importance of transformation issues consistently diminished. As Witold Trzeciakowski notes, transformation processes refer to the restructuring of one system into a different one (Trzeciakowski, 1997, p. 49). The initial system was the communist economy, and the target system was a market economy. In so far as there are many theories that explain relatively well the functioning of a communist economy and that of a market economy, a theoretical insight into transformation processes is lacking. As regards concepts for the shaping of a transition policy, three should be mentioned: the big bang, institutional evolution, and minimum bang (Otta, 1994, pp. 43-46). More detailed discussions of issues relating to transformation are offered by Otta (ed., 1994), Contractor (1998), Kleer and Kondratowicz (eds., 2006), Gorynia and Kowalski (2008), Kowalski (2009), Woźniak (2011), Kowalski (2013), and Kozłowski and Wojtyśiak-Kotlarski (eds., 2014).

The second process mentioned is globalisation. The relevance of this factor has been stable and enormous, because it creates many opportunities for the Polish economy, but also many threats. In the long run it is the most important external determinant of the place of Poland in the global economy.

From a theoretical-epistemological point of view, globalisation appears to be a natural consequence or attribute of the market economy. In this sense it is fully understandable that companies which operate in accordance with the profit maximisation stereotype (the neoclassical vision of a company) try to expand to foreign markets to increase their turnover, profits, company value and other similar indicators. From the normative point of view, a solution must be sought to the problem of state interventionism in the market economy, which relates to its imperfections, where in the case of globalisation the issue is not the economic interventionism of individual states, but effective and coordinated intervention by the international community. In analysing the abovementioned aspects of globalisation (the core of the phenomenon, favourable

factors, forms of globalisation, the role of the state in globalisation processes, effects distribution), one may refer to works by, for example, Ohmae (1995), Parker (1998), Streeten (2001), Gorynia (2002), Gorynia and Wolniak (2002), Stiglitz (2002), Milward (2003), Dunning (ed., 2003), Bhagwati (2004), Gorynia (2006), Rodrik (2011), Stiglitz (2011), Nederveen (2012), Kołodko (2013) and Kowalski (2013).

The third and last process is integration with the EU. It is difficult to overestimate the impact of this process, mainly because of the great importance of economic cooperation with this group (especially trade and foreign investments). The most relevant theories which should be referred to here are the free trade theory, the customs union theory, the common market theory and the monetary union theory. These combine elements of normative and positive economic theories. They specify what results, and why, integration may bring about (once certain assumptions are met) and how to ensure that these results are achieved (what measures of economic policy are to be applied). Issues in European integration are discussed, for example, by Cieślak, Michałek and Mycielski (2012), Pellerin-Carlin (2014), and Małuszyńska, Musiałkowska and Mazurek (eds., 2015). It has been accurately stated elsewhere that: "The EU enlargements should be considered in the wider context of other developments which have had an impact on the acceleration of processes within the EU. It is difficult to set apart the impact of the conditions mentioned, and thus such an attempt has not been made in this text" (Żukrowska, 2015, pp. 12-13). This quote seems to confirm the opinion that in the modern economic world, the level of complexity is so great that a precise identification of the impact of various factors is difficult if not impossible. Another circumstance which needs to be taken into account is the 2008 global economic crisis. Its general consequence was the emergence of exogenic obstacles to growth incentives for Poland's economy. The economic crisis has been thoroughly discussed by Kołodko (ed., 2010), Kowalski (2013) and Dzikowska, Gorynia and Jankowska (2015). Furthermore, in the background of the processes considered here are issues of human development and concurrent political issues. Relations between social growth and trade and foreign investments are discussed by, for example, Michałek, Brzozowski and Cieślak (2012), and political issues by, for example, Balcer and Wójcicki (2014).

The theoretical frameworks briefly presented above have served as a basis for attempts at explaining the changes in the ranking of Polish economy within the EU, but they are limited in so far as they cover only economic issues. It should be emphasised that economic processes do not take place in isolation from other domains of national growth, and are closely related to the social and political spheres at the very least. For instance, relations between social growth and foreign investment are analysed by Michałek, Brzozowski and Cieślak (2012). The impact of political issues has also been discussed, for example by Balcer and Wójcicki (2014).

In the transition period and after Poland joined the EU, the Polish economy was clearly a catching-up economy. This concept is directly related to the income convergence theory. According to this theory there is a general tendency for the levelling of

differences in per capita income between the EU member states. The idea of catching up is derived from the belief that economies with lower income per capita grow faster than those with a higher level of affluence. As experience has taught us, the postulates of this theory are not always confirmed in practice. In the case of many countries such forecasts have turned out to be wrong. Examples (less numerous) of successful economic transformations, which in the long run reduced the distance between a catching-up economy and the most developed economies, or even enabled it to overtake them, can also be given. These observations were essential to positing the two research questions asked in the introduction above.

In conclusion, it can be stated that – in general – the publications referred to above indicate that no coherent theoretical foundations for an analysis of the evolution of Poland's economy and its rank in the EU have been built, and theoretical contributions are scattered throughout the economic literature. In this situation, the identification and gathering of these contributions in one place is a valuable undertaking in itself. Moreover, the presented simplified review of theoretical concepts may be of heuristic value, helping us to realise the complexity of the situation which conditioned Poland's economic growth and material advances. It becomes clear that there are many conditions on which we have no influence, while others are fully or largely dependent upon actions taken by Poland, including its economic policy.

In the following sections of this paper the focus is on selected aspects, such as changes in gross domestic product, exports and imports, and foreign direct investment inflows to Poland and Poland's direct investments abroad. It is assumed that these are the basic and most important indicators describing the evolution of Poland's economic rank within the reference group, i.e. the EU member states.

#### CHANGES IN GDP

In the period examined, Poland's GDP grew from 192,725 million EUR (euro) in 2003 to 412,488 million EUR in 2014. This represents a growth, in current prices, of 114% (Table 1<sup>3</sup>). In the EU-28 the aggregate GDP grew from 10,496,216 million EUR in 2003 to 13,942,561 million EUR in 2014, an increase of 32.8%. It is worth noting that Poland's share of the EU-28's GDP grew from 1.8% in 2003 to 3% in 2014. Despite its significant growth, Poland's GDP continued to be relatively low. Throughout this period the annual changes in Poland's GDP were positive in nearly every case. The only exception was 2009, when the GDP fell by 13.2%, although this negative figure was due to a change in the exchange rate (measured in the Polish currency, the GDP in 2009 was not lower than in 2008). In the EU-28 the situation was similar: only in 2009 did GDP decrease (by 5.7%). However, while in the case of Poland, in the

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<sup>3</sup> Note: in Tables 1, 3, 5, 7 and 9 growth rates are expressed as percentage ratios, taking the figure for 2003 or for the previous year to be 100%. For example, a figure of 214% indicates an increase by 114%.

three best years for GDP growth the rate was relatively high (19.9% in 2005, 15.5% in 2008 and 14.6% in 2010), in the EU-28 the three best rates were relatively low (6.0% in 2007, 5.8% in 2006, 5.0% in 2004).

In the years discussed, the GDP per capita (at the official exchange rate) changed in Poland from 5,039 EUR in 2003 to 10,792 EUR in 2014, while for the EU-28 the respective figures were 21,214 EUR and 27,193 EUR (Table 1). It follows that Poland's GDP per capita was 23.8% of the EU-28 average in 2003 and 39.7% in 2014.

In 2003–2014 Poland's GDP per capita grew similarly to the total GDP (by 114.0%). In the same period the EU-28 GDP per capita increased by 28.2%. In Poland the annual growth in GDP per capita was negative only in 2009. The same is true of the EU-28.

The data presenting the changes in Poland's GDP figures and their comparison to the EU's GDP, in both absolute and relative terms, including growth rates, provide a context in which we may consider the question of Poland's position within the EU. In terms of total GDP, the country's rank improved slightly. In the first three years of the analysed period, Poland's economy was the tenth or eleventh largest amongst the 28 EU member states. In 2008 it was the seventh, and in the next six years it was eighth or ninth. The data on GDP per capita demonstrate that Poland's rank in the EU was fairly stable, but at the same time the country's performance was weak. Poland's successes, that is the relatively good growth rates, were not strong enough drivers to significantly improve its ranking. Poland languished consistently in places 24–26 (it was in 24<sup>th</sup> place in 2003, 2005, 2010, 2013 and 2014, in 25<sup>th</sup> place in 2011 and 2012, and in 26<sup>th</sup> place in the remaining years).

#### CHANGES IN EXPORTS

As mentioned above, exports are a manifestation of active economic internationalisation. The value of Polish exports in current prices grew from 53,985 million EUR in 2003 to 156,665 million in 2014 (Table 3), representing a growth of 193.9%. In the EU-28, the value of exports grew from 2,589,998 million EUR in 2003 to 4,406,424 million in 2014. The percentage growth here was 70.1%, significantly lower than the figure for Poland. Polish exports grew every year except for 2009; the same is true in the case of the EU-28. Poland's most spectacular growth rates came in 2005, 2006 and 2010, when exports grew by over 20%. In the EU-28, the strongest growth was recorded in 2010 (18.1%), 2006 (12.5%) and 2011 (12.5%).

The value of Polish exports per capita grew from 1,404 EUR in 2003 to 4,108 EUR in 2014. Exports per capita of the EU-28 were 5,256 EUR and 8,693 EUR respectively. The growth in exports per capita was 192.6% for Poland and 65.4% for the EU-28. For both Poland and the EU-28, the annual growth rate was negative only in 2009.

Poland's share of the EU-28's exports grew from 2.08% in 2003 to 3.60% in 2014. Throughout the examined period the growth trend was regular. However, in spite of

this growth, the share of Polish exports remained relatively low. It is also worth noting that the percentage contribution of exports of goods and services to Poland's GDP grew steadily, even though this growth was uneven over time. It grew from 33.4% in 2009 to 47.4% in 2014. In the EU-28 this indicator increased from 32.7% in 2003 to 43.1% in 2014.

A simple indicator reflecting changes in a country's exports is its place in rankings (Table 4). In 2003, as an exporter of goods and services, Poland ranked twelfth in the EU-28. As an exporter of goods it also ranked twelfth, and as an exporter of services it ranked sixteenth. Its respective ranks in 2014 were ninth, eighth and thirteenth. In terms of exports per capita, Poland ranked 25<sup>th</sup>, 23<sup>rd</sup> and 27<sup>th</sup> respectively. These three ranks remained the same in 2014.

The next indicator describing the evolution of Poland as an exporter is the Export Performance Index (Table 10). This is the ratio of the percentage of Poland's GDP accounted for by exports to the corresponding percentage for the EU-28. It is a measure of the country's relative propensity to export, compared with the other countries in the group. In 2003–2014 the value of this index for Poland ranged between 1.055 (2008) and 1.223 (2014). In general, it tended to rise slightly. These figures demonstrate that Poland's propensity to export was higher than the average for the EU-28, and that it improved slightly.

#### CHANGES IN POLAND'S OUTWARD FDI

The second most important manifestation of the active internationalisation of Poland's economy is its outward foreign direct investment (FDI) (Table 5). In the case of Poland, its cumulative outward FDI in 2014 was 14,508.9% of its 2003 figure, while in the EU-28 the corresponding percentage was 186.3%. Poland's figure increased every year with the exception of 2014, when it fell by 7.9%, while the figure for the EU-28 showed a decrease on three occasions, in 2008, 2011 and 2014 (by 7.4%, 4.5% and 4.2% respectively). The data on annual FDI outflows is presented in Table 6. Poland ranked twelfth (its highest place) in 2014, while its performance was poorest in 2003 (27<sup>th</sup> place). The 2013 figures should be treated with caution; they may still be officially adjusted. In terms of outward FDI per capita, Poland's rank in the EU-28 ranged between the seventeenth (in 2010 and 2014) and twenty-seventh (in 2003 and 2013).

The changes in Poland's foreign direct investment can also be described with the Outward FDI Performance Index (Table 10). In every year from 2003 to 2014 the value of this index was below 1, which means that Poland's percentage contribution to the outward FDI of the EU-28 was smaller than its contribution to that group's GDP. The changes in the values of this index are interesting. It was highest in 2014 (0.631) and lowest in 2013 (–0.397). This demonstrates that Poland's economy is not yet a mature foreign investor.



## CHANGES IN IMPORTS

The dealings of Poland's economy with the world economy include passive internationalisation, and imports are one of the most important manifestations of this. Table 7 contains data on goods imports by Poland and the EU-28. From 2003 to 2014 Poland's imports grew by 173.2%, while those of the EU-28 grew by 68.2%. Poland's imports fell only once, in 2009, while those of the EU-28 did so twice, in 2009 and 2013. Imports per capita over the same period increased by 172.0% for Poland and 63.5% for the EU-28. Again, they decreased only in 2009 for Poland and in 2009 and 2013 for the EU-28. The ratio of imports of goods and services to the Polish GDP was lowest in 2005 (35.9%) and highest in 2014 (46.2%).

Poland's place in the ranking of importers is also interesting (Table 8). In 2003 Poland ranked twelfth in the EU-28; it ranked tenth in the import of goods and fourteenth in the import of services. In 2014, its ranks were 8<sup>th</sup>, 8<sup>th</sup> and 13<sup>th</sup> respectively. Poland's imports per capita in the three categories ranked 26<sup>th</sup>, 26<sup>th</sup> and 27<sup>th</sup> in 2003 and the 25<sup>th</sup>, 25<sup>th</sup> and 25<sup>th</sup> in 2014.

In 2003–2014 the Import Performance Index for Poland ranged between 1.151 (2005) and 1.299 (2014) (Table 10). This index value was relatively stable and did not change much over the entire period analysed (1.285 in 2003 and 1.229 in 2014). These values indicate that Poland's percentage share in EU imports exceeds its share in GDP by about one-quarter.

## CHANGES IN INWARD FDI

The next important manifestation of the passive internalisation of Poland's economy is foreign direct investment in Poland (Table 9). Between 2003 and 2014, cumulative inward FDI in Poland increased by 271.7%, compared with 97.2% in the EU-28. Both for Poland and the EU-28, the figure decreased on three occasions: in 2008, 2011 and 2014.

Poland's place in EU rankings by inward FDI was relatively stable, except in 2013 (see Table 6). In most years, Poland ranked in either the top ten or the top twenty among the EU-28. Its rank was highest in 2005 (5<sup>th</sup> place) and lowest in 2013 (25<sup>th</sup> place). In terms of inward FDI per capita, Poland's performance was much weaker. Its highest place among the EU-28 was twelfth (in 2010) and its lowest was 26<sup>th</sup> (in 2003 and 2005).

In 2003–2014 the Inward FDI Performance Index (Table 10) for Poland ranged between 0.012 (2013) and 3.397 (2004). This large difference reflects the changes in FDI inflows in particular years. In most years the role of Poland as a country with significant inward FDI inflows was much greater than the role of the Polish economy as a contributor to the GDP of the EU-28.

CONCLUSIONS: TOWARDS A NORMATIVE THEORY OF THE EVOLUTION  
OF THE RANK OF A NEW MEMBER STATE IN AN INTEGRATION GROUPING  
BASICS OF A GROWTH-ENHANCING ECONOMIC POLICY

In this section we refer back to the research questions asked at the outset. The first concerns the importance of various changes in Poland's economy in the light of the income convergence theory and the catch-up effect concept. To answer this question, a review of the changes discussed above will be presented.

In 2003–2014 the total growth of Poland's GDP was much higher (114.0%) than that of the EU-28 (32.8%), with a difference of more than 81%. The difference in the GDP growth per capita was similar (114.2% for Poland and 28.2% for the EU-28). Being aware of the gross simplification involved, it can be noted that in the period examined, the growth indicators were more favourable in the case of Poland than the EU-28.

The exports data is also interesting. In 2003–2014, Poland's exports grew by as much as 193.9%, compared with 70.1% for the EU-28, a difference of more than 123%. Exports per capita increased by 192.6% in Poland and 65.4% in the EU-28. The changes in Poland's share in the exports of the EU-28 were positive. Poland's exports of goods and services expressed as a percentage of GDP were slightly higher than for the EU-28. Another indicator of Poland's contribution to exports is the ranking of the largest EU-28 exporters, in which Poland improved its position significantly. Poland also achieved a slight improvement in its rank in terms of exports per capita. The Export Performance Index data demonstrates that Poland's position as an exporter within the EU-28 was fairly stable.

In terms of outward FDI, the index measured as the ratio of cumulative investment in 2014 to that in 2003 was almost 78 times larger in Poland's case than in the case of the EU-28. In terms of annual outflows, in 2003–2014 Poland's share in the EU-28 figure was highly volatile, but in some years it was significant. Similar conclusions can be drawn from the analysis of the Outward FDI Performance Index.

Note should also be taken of the data on imports. Between 2003 and 2014, Polish imports grew by 173.2%, compared with 68.2% for the EU-28 (the growth in imports per capita was about the same). Poland's ranking among the EU-28 in terms of total imports showed a marked improvement, while in terms of imports per capita its ranking was relatively stable. The analysis of the Import Performance Index demonstrates that in this area Poland is a relatively important player in the EU-28 (relative to its contribution to GDP).

The rate of growth in cumulative inward FDI between 2003 and 2014 was almost twice as high for Poland as for the EU-28. As far as the annual value of FDI inflows is concerned, in most years Poland's rank was rather stable and high. However, in terms of inflows per capita, Poland's performance was much poorer.

The second research question concerns Poland's economic prospects. It needs to be emphasised (as was noted earlier) that the building of a normative theory of the

economic evolution of a new member state in an integration grouping should refer back to two possible foundations. One is positive economic theory, which identifies, describes and interprets patterns which – in the case of Poland – have emerged after the country became a member state of the EU. The other foundation is provided by relevant theorems and directives of selected economic doctrines, which can help to enhance economic effectiveness and growth. It is desirable to translate the directives into concrete recommendations for an economic policy to enhance the growth of prosperity in the medium and long run.

The changes in the economic situation of Poland and the EU-28, as presented above, have already been compared and summarised. However, these changes have not yet been analysed in terms of any theory. Theory testing would be futile as there is no good theory which might be applicable. Nevertheless, the described changes point to processes which were positive and negative for the growth of Poland's economy. Many developments indicate that in the functioning of Poland's economy after 1990 and in 2003–2014, there were noticeable trends characteristic for the catching-up concept. Their manifestation was the strong improvement in the ranking of Poland's economy globally and in the EU. At the same time, important challenges and serious threats for Poland have been identified. Both the positive and negative trends in Poland's economy may be a foundation for normative recommendations. The message of standard SWOT analysis is that positive trends should be exploited, possibly supported and strengthened, while negative trends should be counteracted if not eliminated. SWOT analysis, however, is not a sufficient foundation for normative recommendations, and it is not the only analysis of value. It will also be necessary to recall, selectively and in summary, the recommendations to be found in various economic doctrines<sup>4</sup> and adapt them to the actual condition of Poland's economy, and to devise a set of normative recommendations aimed at ensuring economic growth and, consequently, raising the level of prosperity. The recommendations for Poland presented here do not follow directly from the deliberations presented above; they rather reflect the author's own perspective, which is an outcome of many years of research on companies' performance and the dependence of their competitiveness on current national economic policy. It seems that the basic economic doctrines which can be a source of inspiration are monetarism, supply-side economics, economic interventionism, market support, growth support and the doctrine of selective growth orientation. The recommendations which they offer are not always consistent, and it would be difficult to devise a cohesive economic strategy. Consequently, it appears that in the building of such a strategy, an approach of pragmatic eclecticism is needed. The outline of such an approach is presented below; more elaborate justification of these postulates can be found in other works of the author and his collaborators (Dzikowska, Gorynia, Jankowska, eds., 2016).

<sup>4</sup> For a review of the most important doctrines see Gorynia (1994) and Gorynia (1995).

Summing up the comparisons of the changes in the rankings of Poland's economy among the EU-28, the following conclusions can be drawn:

– Poland's economy grew significantly faster than that of the EU-28. In other words, Poland's "catching up" to the rest of the EU progressed relatively quickly, which can be counted as a success. A factor that detracts somewhat from this success is that the growth indicators for the EU-28 were very low in the analysed period. In this situation even the not very impressive growth rates for Poland gave it quite a significant advantage over the EU-28. In terms of raising the level of prosperity, the successes of Poland take on a more relative character when compared with other regions of the world.

– The patterns identified for 2003-2024 are of limited value as far as economic forecasts are concerned. A huge number of variables overlap, and this refers to national economies and particular economic policies. This overlapping makes economic growth scenarios highly uncertain. In this situation much speaks for a very careful formulation of predictions. This refers to possible growth scenarios (forecasts) and to economic policy variants dictated by politicians. In the medium term, Poland's economic aspirations will continue to benefit from growth factors characteristic of a transforming economy, although the role of these factors will continue to weaken. They include cost advantages in some sectors, well-educated human resources, location advantages, a relatively large domestic market, etc. Concurrently, however, the weaknesses of Poland's economy will be evidently unfavourable. They include the low degree of innovation, immature institutions, issues in the labour market, shrinking workforce, progressive absence of cost advantage in some sectors, relatively low value-added, and a number of other factors which together lead to the middle wage trap.

– Taking into account the achieved growth level, demographic potential, economic structure and similar variables, it appears that as far as total GDP is concerned, Poland will rank seventh or eighth in the EU-28 in the medium and probably long run. It is difficult to find indications that its rank may rise significantly. What is more, Poland may encounter serious difficulties in maintaining its present position. From this point of view, any experiments that may endanger the balance in Poland's macroeconomic policy or strong state interventions in the economic structure are unadvisable. What is needed is a pragmatic economic policy. Such a policy should pay high attention to macroeconomic balances, improve the maturity of imperfect market economy institutions, improve the functioning of the labour market, build strong foundations in terms of the international treaty base, and create a solid information compendium to support the expansion of Polish enterprises to foreign markets. It should also mitigate the negative effects of current demographic processes. As far as the value of the Polish GDP per capita is concerned, it is highly unlikely that the country's ranking within the EU will improve spectacularly, as the aforementioned middle wage trap is a serious threat.

– If growth trends similar to those identified above are to be maintained, Poland should concentrate on the intensification of its economic relations with the parts of the

world whose economies are growing faster than that of the EU, and frequently also faster than Poland's. These are more promising markets. It is recommended to focus efforts on cooperating with the fastest growing segments of the world's markets and to increase geographical diversification in order to avoid the negative consequences of the domination of the slow-developing EU in Poland's trade. This recommendation is additionally supported by the so-called Hausner Report. In that report it is noted that since 2009, Poland's strong focus on exports to the EU markets has been one of the reasons why the growth rate of Polish exports is lower than the growth rate of global imports (Hausner et al., 2013, p. 43). It appears that the above observations justify the recommendation to diversify Polish exports geographically, focusing on markets that are growing much faster than the EU average and possibly the global average.

– The above recommendation should not be followed mechanically or regarded as dogmatic and unconditional. It would be inappropriate to give up efforts at increasing Poland's exports to the difficult EU markets. This applies in particular to exports from the few industries which have successfully competed in terms of quality (differential competition). The EU market is highly competitive and very demanding, and this provides positive stimuli to further improve the quality of the goods exported. The EU market can and should continue to play the role of a difficult test bed and a bridgehead in the struggle to win other markets. This is because of its geographical and cultural proximity. It is also highly relevant that the relative shares of the EU market in Polish exports are very high, and it will be impossible to quickly compensate for these shares with exports to other markets of similar capacity, even if their growth rate is higher. In other words, the recommendation to expand to markets outside Europe in no way means that trade with the EU is to be restricted.

– Economists' theoretical research on the role of FDI in Poland's economy indicates that it can be reasonably expected that the relative importance of outward FDI will grow and the importance of inward FDI to Poland will lessen as Poland's net outward investment position (NOIP) improves. This expectation follows from Dunning's analysis (1986) of the Investment Development Path (Dunning, Narula, 2002; Gorynia, Nowak, Wolniak, 2007). This objective observation (following from the theoretical research mentioned) about the expected trend should not, however, lead to decisions serving to counteract FDI inflows to Poland. The need for an open policy in this area follows from the high rate of foreign investments and changes in FDI flows worldwide. The appeal of Poland as a good place for capital investments in sectors which have hitherto been popular may fluctuate. Care must be taken to ensure that de-internationalisation processes do not prevail over internationalisation processes. The internationalisation of the economy has always been a benchmark of economic competitiveness and effectiveness.

Finally, it should be emphasised that in this short paper the analysis and interpretation of the observed patterns have necessarily been limited, and a more thorough discussion on the causes of the identified changes could not be presented. Moreover, structural and spatial changes in the economy of Poland are beyond the scope of the

macroeconomic approach adopted. Nevertheless, it seems that that the issues tackled can be investigated further. The testing of particular theories using data relevant to changes in Poland's economy may be valuable. In this context, the question about research perspectives is very important. The issues tackled in this paper are not only relevant to economics, but also have social and political dimensions. In short, the condition of Poland's economy is one of the most important factors determining the position of Poland in the EU and worldwide.

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Table 1  
Gross domestic product in 2003–2014 (at current prices)

Year	GDP												
	Poland						European Union						
	Million EUR	Growth rate; reference year 2003 (100%)	Annual growth rate (previous year = 100%)	Per capita in EUR	Growth rate per capita; reference year 2003 (100%)	Annual growth rate per capita (previous year = 100%)	Million EUR	Growth rate; reference year 2003 (100%)	Annual growth rate (previous year = 100%)	Per capita in EUR	Growth rate per capita; reference year 2003 (100%)	Annual growth rate per capita (previous year = 100%)	
2003	192725	100.0	–	5039	100.0	–	EU15-28	9927290	100.0	–	25702	100.0	–
							EU-28	10496216	100.0	–	21214	100.0	–
2004	204181	105.9	105.9	5341	106.0	106.0	EU15-28	10904188	109.8	109.8	23573	91.7	91.7
							EU-28	11019928	105.0	105.0	22179	104.5	104.5
2005	244784	127.0	119.9	6407	127.2	119.9	EU15-28	11364050	114.5	104.2	24453	95.1	103.7
							EU-28	11504301	109.6	104.4	23058	108.7	104.0
2006	273631	142.0	111.8	7164	142.2	111.8	EU15-28	12006321	120.9	105.7	25719	100.1	105.2
							EU-28	12171823	116.0	105.8	24300	114.5	105.4
2007	313265	162.5	114.5	8203	162.8	114.5	EU15-28	12861777	129.6	107.1	25804	100.4	100.3
							EU28	12905675	123.0	106.0	25667	121.0	105.6
2008	361938	187.8	115.5	9477	188.1	115.5	EU15-28	12936729	130.3	100.6	25860	100.6	100.2
							EU28	12984825	123.7	100.6	25732	121.3	100.2
2009	314190	163.0	86.8	8226	163.3	86.8	EU15-28	12201956	122.9	94.3	24307	94.6	94.0
							EU28	12247044	116.7	94.3	24188	114.0	94.0
2010	359921	186.8	114.6	9422	187.0	114.5	EU15-28	12750174	128.4	104.5	25319	98.5	104.2
							EU-28	12795224	121.9	104.5	25192	118.7	104.2
2011	377197	195.7	104.8	9873	196.0	104.8	EU15-28	13133636	132.3	103.0	26007	101.2	102.7
							EU-28	13178406	125.6	103.0	25874	122.0	102.7
2012	386189	200.4	102.4	10107	200.6	102.4	EU15-28	13391708	134.9	102.0	26451	102.9	101.7
							EU-28	13435670	128.0	102.0	26314	124.0	101.7
2013	396059	205.5	102.6	10364	205.7	102.5	EU15-28	13534867	136.3	101.1	26451	102.9	100.0
							EU-28	13534867	128.9	100.7	26451	124.7	100.5
2014	412488	214.0	104.1	10792	214.2	104.1	EU15-28	13942561	140.4	103.0	27193	105.8	102.8
							EU-28	13942561	132.8	103.0	27193	128.2	102.8

\* Official exchange rate

Source: UNCTAD (<http://unctadstat.unctad.org>, accessed 16 January 2016). Author's own calculations.



Table 2  
*GDP – Poland's rank in the European Union*

Year	Gross domestic product		Gross domestic product per capita	
	Poland's rank in the European Union (EU15-28)	Poland's rank in the European Union (EU-28)	Poland's rank in the European Union (EU15-28)	Poland's rank in the European Union (EU-28)
2003		11		24
2004	10	10	25	26
2005	10	10	23	24
2006	9	9	25	26
2007	9	9	25	26
2008	7	7	25	26
2009	8	8	25	26
2010	9	9	23	24
2011	9	9	24	25
2012	9	9	24	25
2013	8	8	24	24
2014	8	8	24	24

Source: UNCTAD (<http://unctadstat.unctad.org>, accessed 16 January 2016). Author's own calculations.

Table 3  
Exports of goods in 2003–2014 (at current prices)

Year	Export of goods																
	Poland									European Union							
	Million EUR	Growth rate; reference year 2003 (100%)	Annual growth rate (previous year = 100%)	Per capita in EUR	Growth rate per capita; reference year 2003 (100%)	Annual growth rate per capita (previous year = 100%)	Share in EU 15-28 %	Share in EU-28 %	Share of exports of goods and services in GDP %	Million EUR	Growth rate; reference year 2003 (100%)	Annual growth rate (previous year = 100%)	Per capita in EUR	Growth rate per capita; reference year 2003 (100%)	Annual growth rate per capita (previous year = 100%)	Share of exports of goods and services in GDP %	
2003	53985	100.0	–	1404	100.0	–	2.24	2.08	33.4	EU15-28	2406832	100.0	–	6260	100.0	–	32.1
										EU-28	2589998	100.0	–	5256	100.0	–	32.7
2004	58427	108.2	108.2	1519	108.2	108.2	2.09	2.07	34.6	EU15-28	2800050	116.3	116.3	6077	97.1	97.1	33.9
										EU-28	2828659	109.2	109.2	5720	108.8	108.8	34.0
2005	70602	130.8	120.8	1836	130.7	120.8	2.32	2.30	34.9	EU15-28	3037432	126.2	108.5	6564	104.9	108.0	35.3
										EU-28	3071069	118.6	108.6	6189	117.7	108.2	35.4
2006	86005	159.3	121.8	2235	159.2	121.8	2.52	2.49	38.2	EU15-28	3414806	141.9	112.4	7347	117.4	111.9	37.5
										EU-28	3455172	133.4	112.5	6938	132.0	112.1	37.5
2007	98029	181.6	114.0	2546	181.4	113.9	2.65	2.65	38.8	EU15-28	3695573	153.5	108.2	7460	119.2	101.5	38.1
										EU-28	3703228	143.0	107.2	7410	141.0	106.8	38.1
2008	112570	208.5	114.8	2922	208.1	114.8	2.96	2.95	38.3	EU15-28	3803221	158.0	102.9	7651	122.2	102.6	39.1
										EU-28	3811198	147.2	102.9	7601	144.6	102.6	39.1
2009	95334	176.6	84.7	2473	176.1	84.6	3.07	3.06	37.6	EU15-28	3108000	129.1	81.7	6233	99.6	81.5	34.9
										EU-28	3114598	120.3	81.7	6193	117.8	81.5	34.9
2010	118072	218.7	123.9	3061	218.0	123.8	3.22	3.21	40.0	EU15-28	3671200	152.5	118.1	7344	117.3	117.8	38.6
										EU-28	3679291	142.1	118.1	7297	138.8	117.8	38.6
2011	132405	245.3	112.1	3431	244.4	112.1	3.23	3.22	42.5	EU15-28	4097982	170.3	111.6	8181	130.7	111.4	41.4
										EU-28	4106720	158.6	111.6	8129	154.7	111.4	41.4
2012	141000	261.2	106.5	3652	260.1	106.4	3.31	3.30	44.4	EU15-28	4259859	177.0	104.0	8492	135.7	103.8	42.6
										EU-28	4268545	164.8	103.9	8437	160.5	103.8	42.6
2013	149105	276.2	105.7	3861	275.0	105.7	3.47	3.47	46.3	EU15-28	4291973	178.3	100.8	8475	135.4	99.8	42.9
										EU-28	4291973	165.7	100.5	8475	161.2	100.4	42.9
2014	158665	293.9	106.4	4108	292.6	106.4	3.60	3.60	47.4	EU15-28	4406424	183.1	102.7	8693	138.9	102.6	43.1
										EU-28	4406424	170.1	102.7	8693	165.4	102.6	43.1

Source: Eurostat (<http://ec.europa.eu/eurostat/data/database>, accessed 16 January 2016). Author's own calculations.

Table 4  
Exports – Poland's rank in the European Union

Year	Exports						Exports per capita					
	Exports of goods and services		Exports of goods		Exports of services		Exports of goods and services		Exports of goods		Exports of services	
	EU15-28	EU-28	EU15-28	EU-28	EU15-28	-	EU15-28	EU-28	EU15-28	EU-28	EU15-28	EU-28
2003		12		12		16		25		23		27
2004	12	12	12	12	14	14	25	26	23	23	25	27
2005	12	12	11	11	14	14	25	26	23	23	25	27
2006	12	12	11	11	14	14	25	26	23	23	25	27
2007	11	11	11	11	14	14	25	26	24	24	26	27
2008	11	11	9	9	14	14	25	26	22	22	26	27
2009	11	11	10	10	14	14	25	26	23	23	26	27
2010	11	11	9	9	13	13	25	26	24	24	25	26
2011	11	11	9	9	13	13	25	26	24	24	25	26
2012	10	10	9	9	13	13	25	25	23	23	26	27
2013	10	10	8	8	13	13	25	25	23	23	27	27
2014	9	9	8	8	13	13	25	25	23	23	27	27

Source: Eurostat (<http://ec.europa.eu/eurostat/data/database>, accessed 16 January 2016). Author's own calculations.

Table 5

FDI outflows from Poland and the European Union in 2003–2014 (million EUR)

Year	FDI outflows from Poland	Aggregated value of FDI outflows from Poland			FDI outflows from the European Union		Aggregated value of FDI outflows from the European Union		
		Million EUR	Growth rate; reference year 2003 (100%)	Annual growth rate (previous year = 100%)			Million EUR	Growth rate; reference year 2003 (100%)	Annual growth rate (previous year = 100%)
2003	-266	339	100.0	–	EU15-28	227612	3692903	100.0	–
					EU-28	231216	3707744	100.0	–
2004	375	858	253.1	253.1	EU15-28	278582	3823374	103.5	103.5
					EU-28	278752	3825104	103.2	103.2
2005	2302	2908	858.3	339.1	EU15-28	426372	4153665	112.5	108.6
					EU-28	426780	4155517	112.1	108.6
2006	6107	8212	2424.0	282.4	EU15-28	519314	5129559	138.9	123.5
					EU-28	520000	5132486	138.4	123.5
2007	2547	10964	3236.2	133.5	EU15-28	863882	5812109	157.4	113.3
					EU-28	864110	5814835	156.8	113.3
2008	2347	11578	3417.5	105.6	EU15-28	506578	5381555	145.7	92.6
					EU-28	507533	5385050	145.2	92.6
2009	2631	15137	4467.7	130.7	EU15-28	252757	6254879	169.4	116.2
					EU-28	253664	6259534	168.8	116.2
2010	4641	18282	5396.2	120.8	EU15-28	346974	6733956	182.3	107.7
					EU-28	346905	6737214	181.7	107.6
2011	2641	20987	6194.4	114.8	EU15-28	374045	6633165	179.6	98.5
					EU-28	374075	6636380	179.0	98.5
2012	-2067	24048	7098.1	114.6	EU15-28	246532	7120302	192.8	107.3
					EU-28	246489	7123682	192.1	107.3
2013	-2484	53367	15751.8	221.9	EU15-28	214711	7210796	195.3	101.3
					EU-28	214711	7210796	194.5	101.2
2014	3923	49156	14508.9	92.1	EU15-28	211357	6906360	187.0	95.8
					EU-28	211357	6906360	186.3	95.8

Source: UNCTAD (<http://unctadstat.unctad.org>, accessed 16 January 2016). Author's own calculations.

Table 6  
*FDI – Poland's rank in the European Union*

Year	FDI				FDI per capita			
	Inflows		Outflows		Inflows		Outflows	
	EU15-28	EU-28	EU15-28	EU-28	EU15-28	EU-28	EU15-28	EU-28
2003		13		27		26		27
2004	6	6	18	18	17	18	22	23
2005	11	11	14	14	23	26	21	21
2006	9	9	13	13	22	25	20	20
2007	11	11	17	17	21	22	24	24
2008	5	5	16	16	19	20	26	27
2009	9	9	14	14	13	14	20	21
2010	8	8	13	13	12	12	17	17
2011	9	9	15	15	21	21	20	20
2012	14	14	25	26	22	23	23	24
2013	25	25	26	26	25	25	25	25
2014	6	6	12	12	18	18	17	17

Source: UNCTAD (<http://unctadstat.unctad.org>, accessed 16 January 2016). Author's own calculations.

Table 7  
Imports of goods in 2003–2014 (at current prices)

Year	Imports of goods																
	Poland									European Union							
	Million EUR	Growth rate; reference year 2003 (100%)	Annual growth rate (previous year = 100%)	Per capita in EUR	Growth rate per capita; reference year 2003 (100%)	Annual growth rate per capita (previous year = 100%)	Share in EU15-28 %	Share in EU-28 %	Share of imports of goods and services in GDP %	Million EUR	Growth rate; reference year 2003 (100%)	Annual growth rate (previous year = 100%)	Per capita in EUR	Growth rate per capita; reference year 2003 (100%)	Annual growth rate per capita (previous year = 100%)	Share of imports of goods and services in GDP %	
2003	59263	100.0	–	1541	100.0	–	2.58	2.35	36.0	EU15-28	2295844	100.0	–	5971	100.0	–	30.7
										EU-28	2517887	100.0	–	5110	100.0	–	31.6
2004	65114	109.9	109.9	1693	109.9	109.9	2.39	2.35	37.2	EU15-28	2728515	118.8	118.8	5921	99.2	99.2	32.6
										EU-28	2773336	110.1	110.1	5608	109.8	109.8	32.8
2005	75068	126.7	115.3	1952	126.6	115.3	2.49	2.45	35.9	EU15-28	3014192	131.3	110.5	6513	109.1	110	34.4
										EU-28	3068929	121.9	110.7	6184	121.0	110.3	34.6
2006	93845	158.4	125.0	2439	158.2	125.0	2.72	2.67	40.1	EU15-28	3444521	150.0	114.3	7411	124.1	113.8	36.9
										EU-28	3512124	139.5	114.4	7053	138.0	114	37.0
2007	114465	193.1	122.0	2973	192.9	121.9	3.06	3.04	42.1	EU15-28	3746787	163.2	108.8	7563	126.7	102.1	37.5
										EU-28	3764033	149.5	107.2	7532	147.4	106.8	37.5
2008	136071	229.6	118.9	3532	229.2	118.8	3.49	3.47	43.2	EU15-28	3901979	170.0	104.1	7850	131.5	103.8	38.9
										EU-28	3920751	155.7	104.2	7819	153.0	103.8	38.9
2009	103003	173.8	75.7	2672	173.4	75.6	3.32	3.31	38.3	EU15-28	3099866	135.0	79.4	6217	104.1	79.2	33.9
										EU-28	3113923	123.7	79.4	6191	121.2	79.2	33.9
2010	129006	217.7	125.2	3344	217.0	125.2	3.50	3.49	42.1	EU15-28	3687093	160.6	118.9	7376	123.5	118.6	37.8
										EU-28	3701117	147.0	118.9	7340	143.7	118.6	37.8
2011	145701	245.9	112.9	3775	244.9	112.9	3.54	3.52	44.5	EU15-28	4118281	179.4	111.7	8222	137.7	111.5	40.4
										EU-28	4133397	164.2	111.7	8182	160.1	111.5	40.4
2012	149156	251.7	102.4	3863	250.7	102.3	3.57	3.55	44.9	EU15-28	4183240	182.2	101.6	8340	139.7	101.4	40.7
										EU-28	4198201	166.7	101.6	8298	162.4	101.4	40.7
2013	149426	252.1	100.2	3869	251.0	100.2	3.61	3.61	44.4	EU15-28	4144149	180.5	99.1	8183	137.0	98.1	40.3
										EU-28	4144149	164.6	98.7	8183	160.2	98.6	40.3
2014	161921	273.2	108.4	4193	272.0	108.4	3.82	3.82	46.2	EU15-28	4235388	184.5	102.2	8356	139.9	102.1	40.3
										EU-28	4235388	168.2	102.2	8356	163.5	102.1	40.3

Source: Eurostat (<http://ec.europa.eu/eurostat/data/database>, accessed 16 January 2016). Author's own calculations.

Table 8  
Imports – Poland's rank in the European Union

Year	Imports						Imports per capita					
	Imports of goods and services		Imports of goods		Imports of services		Imports of goods and services		Imports of goods		Imports of services	
	EU15-28	EU-28	EU15-28	EU-28	EU15-28	EU-28	EU15-28	EU-28	EU15-28	EU-28	EU15-28	EU-28
2003		12		10		14		26		26		27
2004	12	12	10	10	14	14	25	26	25	26	25	27
2005	12	12	10	10	14	14	25	26	25	26	25	27
2006	11	11	10	10	13	13	25	26	25	26	25	27
2007	11	11	8	8	13	13	25	26	25	26	26	27
2008	8	8	8	8	14	14	25	26	25	26	26	27
2009	9	9	8	8	14	14	25	26	25	26	26	27
2010	8	8	8	8	13	13	25	26	25	25	25	26
2011	9	9	8	8	13	13	25	25	25	25	25	26
2012	9	9	8	8	13	13	25	25	25	25	25	26
2013	8	8	8	8	13	13	25	25	25	25	26	26
2014	8	8	8	8	13	13	25	25	25	25	25	25

Source: Eurostat (<http://ec.europa.eu/eurostat/data/database>, accessed 16 January 2016). Author's own calculations.

Table 9

*FDI inflows to Poland and the European Union in 2003–2014 (million EUR)*

Year	FDI inflows to Poland (million EUR)	Aggregated value of FDI inflows to Poland			FDI inflows to the European Union (million EUR)		Aggregated value of FDI inflows to the European Union		
		Million EUR	Growth rate; refer- ence year 2003 (100%)	Annual growth rate (previous year = 100%)			Million EUR	Growth rate; refer- ence year 2003 (100%)	Annual growth rate (previous year = 100%)
2003	3528	49715	100.0	–	EU15-28	197281	2763374	100.0	–
					EU-28	215698	2966148	100.0	–
2004	10019	68028	136.8	136.8	EU15-28	149788	3171911	114.8	114.8
					EU-28	158729	3205517	108.1	108.1
2005	7815	70911	142.6	104.2	EU15-28	352301	3377044	122.2	106.5
					EU-28	361836	3419328	115.3	106.7
2006	14653	97006	195.1	136.8	EU15-28	409333	4232336	153.2	125.3
					EU-28	426829	4307221	145.2	126.0
2007	15813	125741	252.9	129.6	EU15-28	579532	4986948	180.5	117.8
					EU-28	582885	5018793	169.2	116.5
2008	9464	107298	215.8	85.3	EU15-28	206510	4362015	157.9	87.5
					EU-28	210126	4381413	147.7	87.3
2009	8558	127357	256.2	118.7	EU15-28	279449	5123955	185.4	117.5
					EU-28	281664	5148097	173.6	117.5
2010	9661	147543	296.8	115.9	EU15-28	269956	5342721	193.3	104.3
					EU-28	270811	5367088	180.9	104.3
2011	13134	125643	252.7	85.2	EU15-28	319565	5309533	192.1	99.4
					EU-28	320775	5329961	179.7	99.3
2012	5541	158253	318.3	126.0	EU15-28	282946	5791048	209.6	109.1
					EU-28	284075	5813878	196.0	109.1
2013	90	204624	411.6	129.3	EU15-28	250803	6269464	226.9	108.3
					EU-28	250803	6269464	211.4	107.8
2014	10464	184785	371.7	90.3	EU15-28	194153	5848522	211.6	93.3
					EU28	194153	5848522	197.2	93.3

Source: UNCTAD (<http://unctadstat.unctad.org>, accessed 16 January 2016). Author's own calculations.



Table 10

*Export Performance Index, Import Performance Index, Inward FDI Performance Index, Outward FDI Performance Index in 2003-2014*

Year	Ratio between:	Export Performance Index*	Import Performance Index**	Outward FDI Performance Index***	Inward FDI Performance Index****
2003	Poland –EU15-28	1.158	1.333	-0.060	0.923
	Poland –EU-28	1.138	1.285	-0.063	0.893
2004	Poland –EU15-28	1.111	1.271	0.072	3.562
	Poland –EU-28	1.112	1.264	0.072	3.397
2005	Poland –EU15-28	1.080	1.157	0.251	1.031
	Poland –EU-28	1.082	1.151	0.254	1.016
2006	Poland –EU15-28	1.107	1.197	0.517	1.573
	Poland –EU-28	1.109	1.191	0.523	1.530
2007	Poland –EU15-28	1.089	1.254	0.121	1.120
	Poland –EU-28	1.090	1.252	0.121	1.117
2008	Poland –EU15-28	1.054	1.241	0.165	1.631
	Poland –EU-28	1.055	1.240	0.165	1.609
2009	Poland –EU15-28	1.190	1.289	0.404	1.188
	Poland –EU-28	1.192	1.288	0.404	1.183
2010	Poland –EU15-28	1.134	1.233	0.471	1.261
	Poland –EU-28	1.135	1.233	0.473	1.262
2011	Poland –EU15-28	1.116	1.222	0.244	1.420
	Poland –EU-28	1.118	1.222	0.245	1.420
2012	Poland –EU15-28	1.138	1.226	-0.288	0.674
	Poland –EU-28	1.140	1.226	-0.289	0.673
2013	Poland –EU15-28	1.193	1.238	-0.397	0.012
	Poland –EU28	1.193	1.238	-0.397	0.012
2014	Poland –EU15-28	1.223	1.299	0.631	1.831
	Poland –EU-28	1.223	1.299	0.631	1.831

Indices based on: \* annual value of goods exports, \*\* annual values of goods imports, \*\*\* annual values of FDI outflows, \*\*\*\* annual values of FDI inflows.

Source: UNCTAD (<http://unctadstat.unctad.org>, accessed 16 January 2016 ), Eurostat (<http://ec.europa.eu/eurostat/data/database>, accessed 16 January 2016). Author's own calculations.

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**Keywords:** position of the Polish economy, European Union economy, gross domestic product, foreign trade, foreign direct investment

#### ABSTRACT

*The first aim of this paper is to identify and evaluate major changes and trends in the significance of the Polish economy for the European Union economy in the years 2003-2014. The conducted analysis concerns changes in the gross domestic product, exports, imports, inward foreign direct investment and outward foreign direct investment. The paper's second aim is to forecast what the above mentioned variables under analysis will be in the future and to formulate some recommendations with regard to future economic policy.*