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**INVESTMENTS AS A REGIONAL POLICY  
INSTRUMENT**

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**Key words:** Regional policy, private and public investments, province attractiveness.

**A b s t r a k t**

The aim of the study was to evaluate disparities between provinces in investment acquisition. The evaluation was based on an analysis of investment outlay inflow to provinces with varied economic development level in the years 2002–2006. According to the hypothesis adopted in the study, provinces at a higher level of economic development are more attractive to investors. The analysis shows that the level of a province economic development affected the amount of total investment acquired. Therefore, the study hypothesis has been corroborated. Public, as well as private, investment was largely localised based on the attractiveness criteria which were in turn founded on the province's economic development level. According to the evaluation, distribution of investments reduced the existing disparities between groups of provinces with different levels of economic development. Private investment, in turn, with liberal criteria of allocation do not deepen the existing inter-regional disparities, but they alleviate them to a similar degree as public investments. Only in the group of investments with the lowest level of economic development (the provinces of Lublin, Podkarpacie, Podlasie, Świętokrzyskie and Warmia and Mazury) was the private investment growth rate lower.

**INWESTYCJE JAKO INSTRUMENT POLITYKI REGIONALNEJ**

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**Słowa kluczowe:** polityka regionalna, inwestycje prywatne i publiczne, atrakcyjność województw.

**A b s t r a k t**

Celem badań była ocena międzywojewódzkich dysproporcji w pozyskiwaniu inwestycji. Podstawą tej oceny była analiza skali napływu nakładów inwestycyjnych do województw o zróżnicowanym poziomie rozwoju gospodarczego w latach 2002–2006. W badaniach przyjęto hipotezę, że województwa

o wyższym poziomie rozwoju gospodarczego są bardziej atrakcyjne dla inwestorów. Z przeprowadzonej analizy wynika, że poziom rozwoju gospodarczego województw miał wpływ na skalę pozyskiwanych inwestycji ogółem. W ten sposób pozytywnie zweryfikowano hipotezę badawczą. Inwestycje publiczne – podobnie jak prywatne – były w znacznym stopniu lokalizowane na podstawie kryteriów atrakcyjności inwestycyjnej, które są efektem poziomu rozwoju gospodarczego województw. Ocena wykazała, że podział inwestycji publicznych zmniejsza istniejące dysproporcje między grupami województw o różnym poziomie rozwoju gospodarczego. Inwestycje prywatne przy liberalnych kryteriach alokacji również nie pogłębiają istniejących dysproporcji międzyregionalnych, lecz łagodzą je w stopniu zbliżonym do inwestycji publicznych. Jedyne grupy województw najsłabiej rozwiniętych gospodarczo (lubelskie, podkarpackie, podlaskie, świętokrzyskie i warmińsko-mazurskie) charakteryzowała się wolniejszym tempem wzrostu nakładów inwestycyjnych sektora prywatnego.

## **Introduction and the aim of the study**

The practical effects of the application of the principle of subsidiarity in regional policy are especially visible in investment acquisition and location. Investors are increasingly often approaching regional or local authorities with applications for an investment location in a specific town or province. Only the most significant privatisation decisions and some global-level initiatives are consulted on with the central government. In such cases, some objective differences (resulting from economic factors) between provinces in investment acquisition become apparent. If economic factors are the most important criterion affecting an investment decision, its location is an important part of the considerations. Therefore, it can be assumed that there are great differences between the provinces in terms of their investment attractiveness. The differences manifest themselves in decisions of investors who prefer some regions to others. If such processes last several years, there is no doubt that they will create disparities in economic development between regions. Therefore, the aim of the study was to evaluate such disparities between provinces in investment acquisition. The evaluation was based on an analysis of the amount of investment outlays made in provinces with diverse levels of economic development in the years 2002–2006. A hypothesis was adopted that better-developed provinces are more attractive to investors. Consequently, a majority of investments are located there and the lower the economic development level is, the lower the investment outlays are. This pattern mainly applies to private investments, but it cannot be ruled out with respect to the public sector as well.

## **Object, scope and method applied in the study**

The study dealt with investment outlays, i.e. outlays in cash or in kind, whose aim was to create fixed assets or to improve existing property, as well as outlays made with a view to starting an investment project. The study material

was obtained from the Regional Data Bank (GUS 2008). The statistical data collected there are presented as total investment outlays and their purpose, i.e. investment in the private sector. Therefore, total investment outlays include private investments and public (central and local) ones. The study was based on the values expressed at current prices per 1 provincial inhabitant in consecutive years between 2002 and 2006. The material obtained in this way was as comparable as possible. Current prices were used due to the relatively low inflation rate during the period in question. The consumer price growth index was equal to 0.8% in 2003 and 3.5%; 2.1% and 1.0% in subsequent years, respectively (Wskaźniki 2008). The inflation rate was low enough for the analysis to be free of a significant error resulting from the application of current prices.

The study covered the last two years of the pre-accession period (2002–2003) and all the investment funds within the National Development Plan, which was valid for the first three years of Polish membership in the EU (2004–2006). Comparable data for three subsequent years (2007–2009), i.e. from the period of the National Coherence Strategy for 2007–2013, which is still being implemented, will be available at the end of this year. Only then will it be possible to make a similar evaluation which will take into account subsequent years of Polish membership in the EU and the period of economic slowdown in Poland and the crisis in Europe.

During the period covered by the study, Poland was in an increasing trend in the trade cycle. Although the GDP growth rate in the first year of the study (2002) was equal to a mere 1.4%, it was noticeably higher in subsequent years (3.9% in 2003; 5.3% in 2004 and 3.6% and 6.2% in 2005 and 2006). Despite a high and diverse GDP growth rate in Poland, it was assumed that the relationship of the economic development level in the provinces did not change significantly during the period under study. The assumption was verified based on the statistical data presented by GUS (*Produkt Krajowy Brutto...* 2007).

It was assumed that the levels of the provinces; economic development are sufficiently varied and the entire set can be divided into three groups. The first one comprised 5 provinces (of Lower Silesia, Mazovia, Pomerania, Silesia and Great Poland). Those were the ones in which the GDP per capita value exceeded 95% of the national level. The second group comprised 6 provinces (Kuyavia and Pomerania, Lubuskie, Łódź, Little Poland, Opole and West Pomerania), in which GDP per capita ranged from 80% to 95% of the national level. The third group comprised 5 provinces (of Lublin, Podkarpacie, Podlasie, Świętokrzyskie, Warmia and Mazury) with a GDP of less than 80% of the national level.

## **Investment in regional development**

Including investment in the process of regional policy implementation is one of difficult practical issues. It is affected by many restricting external factors and has significant internal determinants, i.e. domestic causes. Polish membership in the EU may have increased the significance of regional policy, but at the same time it must be noted that according to the valid criteria, all the Polish provinces are classed as retarded in development. Hence, all of them are entitled to apply for European funds. This blurs great internal disparities, i.e. great differences in the level of economic development between the provinces. Another very important external factor is connected with the variability of the foreign exchange rate. It was assumed at the investment planning stage that the EUR/PLN exchange rate is equal to 4. Similar criteria were adopted with respect to investments in the period between 2007–2013. Only in the years 2008–2009 was the recorded exchange rate variability greater than  $\pm 15\%$ . In consequence, the real amount of funds from the EU varies, irrespective the internal factors. That being the case, the scope of investment changes or the share of domestic funds from the state budget (or local budgets) increases.

The basic internal factors are largely associated with the shortness of the period that free market economic principles have been in place and an even shorter period which has passed since the decision was taken to join the EU. When using investments as one of the more important instruments, regional policy is not a fully autonomous activity, but it is rather a function of economic policy, including financial policy. The level of investment in market economy is largely dependent on the economic growth rate, interest rates and the overall climate for investments. Of these three elements, only the latter (and this only partially) depends on the policy of regional and local authorities, whereas financial policy does not take into account regional issues and only determines the investors; involvement around the country. Following the accession, Poland has implemented economic policy while taking into account regulations which are in force in the EU.

During the period which preceded Polish accession to the European Union, decisions were taken whose effects will last for many years, although the legal system of the European Communities does not allow for such solutions. In my opinion, creating special economic zones was such a harmful decision. In nearly every province (the first error), enclaves of privileged areas (the second error) were created. In effect, for no sound reasons areas were allocated on which investors were granted tax breaks and privileges, which encourage them to make investments. As a result of the existence of special economic zones, (covering the area of 5965 ha in 2000, which accounts for 0.015% of the country) the competitiveness of Polish companies around the zones was

decreased as compared to large foreign companies which operate in the zones. Another adverse effect is the migration of capital from other parts of the country as its use in the zones provided an opportunity for tax exemptions (WALDZIŃSKI 2005, p. 174). Hence, it can be concluded that if an economic and financial system in a country does not favour investments, it should be changed to make it friendly instead of creating special zones where general rules do not apply. Special economic zones have affected investment decisions, but it should be supposed that their role will diminish. Currently, investment location decisions are increasingly influenced by Polish membership in the European Union.

After making the decision to join the EU, two distinct trends started to develop in Poland in making and implementing regional investments. In one of them, public investments (mainly infrastructural ones) are financed by EU funds and by resources of local governments. At least until 2015, such actions will be more and more visible and important. However, studies conducted so far have suggested that distribution of the funds among provinces is highly specific. It was found that the regional distribution of funds from the European Union in 2000–2005 was a consequence of the method which gave bonuses to provinces with larger populations. However, studies have not confirmed the relationship between GDP per capita in a province and the amount of EU aid per province inhabitant. The absence of any correlation (positive or negative) indicates that the adopted criteria do not distinguish provinces in terms of expected economic outcome. However, they adopt an egalitarian approach, i.e. an equal amount per each citizen of the country (HELLER, SZCZEPANIAK 2008).

Since Poland's accession to the EU there have been two groups of projects carried out which are subsidised from the Community budget. These are investment projects carried out by public and private sectors. Private projects include all foreign investments as well as those financed from domestic resources. Private investments in Poland accounted for over 67% of the total outlays during the period between 2002 and 2006 (BDR, GUS 2008). The motives that lie behind private investments can be reduced to the general market principles. Satisfying the demand for goods is, in fact, aimed at accelerating the economic growth of the country. Exactly the same objectives are formulated by all the provinces of the country. Provinces compete for investments. Regional authorities take actions which encourage potential investors to locate their projects in specific provinces. The expectations of investors towards provinces are the same as towards the entire country. They hope to locate their investment where their goals are the most easily achieved. In consequence, the investments in a country of the size and diversity of Poland are distributed unevenly. This especially concerns private investments. Assuming there is a comparable social and legal climate among the potential

recipient regions, economic factors become the major criterion of selecting the location. This second trend – represented mainly by the private sector – uses market criteria to select the place where an investment will be located. Therefore, it is obvious that there is a process of liberalisation going on. It is assumed in the study that the level of economic development of a province is an important outcome of such decisions.

Investment location decisions in a market economy are taken by the capital owner based on economic calculations. This raises competition between local governments for favourable decisions of investors. However, regional and local authorities act within a similar institutional and legal framework. Hence, initiatives which encourage investors to locate investments in their area are similar and limited in character, although there are some interesting proposals of an individual character. However, the economic potential of a commune or a province, which allows the authorities to make their offer for potential investors more attractive, is a decisive factor. But it must be borne in mind that the specific location of an investment is sometimes resisted for fear of increasing competition. Between a favourable climate and hindering initiatives by actions which are not illegal there is vast space for official and unofficial initiatives of authorities.

Apart from immediate activity of local authorities in acquiring investments, an important role is played by local conditions. In contemporary literature, such factors are collectively referred to as the investment-related attractiveness of provinces. There is a long tradition of studies of the subject. Their most typical contemporary representation may be divided into three groups. A characteristic example of the first group are studies conducted by the Gdańsk Institute for Market Economics, in which the authors select features and determine their weights; these are later used to estimate the investment attractiveness, which “is understood to denote the ability to persuade to make an investment by offering a combination of location benefits which can be achieved in the course of ordinary business activities. They stem from the specific features of the area in which business activities are conducted. The benefits are referred to as location-related factors. Therefore, the attractiveness of an area is determined by a set of location-related factors. The areas which offer the optimum combination of location-related factors are attractive for investors because they make it possible to reduce investment outlays and operating expenses in the company, facilitating profit maximisation and lowering the investment-related risk” (KALINOWSKI 2007, p. 9). As the study progresses and in consecutive reports, the authors adjust their selection of features and determination of their weights. However, this intensifies the impression that subjective feelings play an important role. A characteristic example may be the factor referred to as the *level of economic development*,

which – unlike subregions – is not taken into account in evaluation of province attractiveness. However, studies suggest that a certain level of economic development is a decisive factor in acquiring direct foreign investments (HELLER, WARŻAŁA 2005). It is the same with another factor: *degree of protection and the condition of the natural environment*. Despite those critical remarks, the studies are dominated by features which investors undoubtedly take into account, e.g. transport availability, labour cost as well as the size and quality of resources, absorbability of the market, development of socio-economic infrastructure as well as the level of common security and the region's activity towards investors (KALINOWSKI 2007, s. 11).

Another group of studies may be referred to as ones derived from multi-dimensional comparative analysis. It is a large group of authors (JAJUGA 1993, MALINA 2004, ZELIAŚ 2000 and others). The most recent results on the subject were published by B. Guzik in early 2008. The value taken as the basis for determining investment attractiveness is the actual investment outlay made by private investors. However, this is not a classic comparison of the investment outlay per province inhabitant, but an examination of the attractiveness-related rent, i.e. surplus or deficit of investment outlay per capita to the “norm” determined with the level of a provincial development based on the national model of relationship between investment outlays and the level of development (GUZIK 2008, p. 61, 62). It is not – unlike in the studies conducted by the Institute of Market Economics – only a subjective evaluation of the provinces' investment potential, but a successful attempt at using the actual outlays. Those are only outlays made by the private sector, which is justified from the point of view of market behaviour and reactions, but restricting the studies only to the investment in this group, in fact, prevents one from making a synthetic evaluation. Public sector investments in Poland account for a third of the total outlays, therefore their role is not neutral in terms of the future development of the country and the provinces. On the other hand, a study by B. Guzik contains an interesting evaluation of investment attractiveness (attractiveness-related rent) of provinces for individual sections. Apart from the total attractiveness, province attractiveness can be evaluated in as many as 11 sections, e.g. agriculture, total industry, etc. Based on a specific structure of attractiveness, the author points to the very important role of weights. In his opinion, they do not have to have positive qualities. It is obviously an interesting remark, especially if the actual results are compared with a model, which always expresses a certain average, with possible deviations either *in plus* or *in minus*.

A third group of studies is the most synthetic in character. Their aim is to evaluate the effect that the overall level of provincial economic development on the ability to acquire and spend funds from various sources (foreign invest-

ment, revenues of local governments, Community funds, public and private investments, etc.). Such funds obviously affect the economic development of provinces, although their sources and character vary. They are – it is assumed – linked by a connection with the level of economic development of a province and, in consequence and in the long run, the process of deepening the existing developmental disparities. An example is provided in a study by A. Wasilewski, who claims that the economic development of local governments is clearly dominated by those with the highest income, which not only manifests itself in the number of business entities, but also foreign investments in such areas are located much more frequently (WASILEWSKI 2005, p. 113). The presented study represents a similar trend. Its aim is not to make assessments of individual provinces, but to seek general (synthetic) regularities which characterise groups of provinces which are similar in terms of their economic development.

### **The effect of the level of economic development on the amount of the investments acquired**

The level of economic development of provinces, expressed as GDP per capita, may affect the amount of investment outlays, investment growth rate in the years covered by the study and the share of the public sector. The factors under evaluation include total investments and private investments per province inhabitant, and the results are presented in Tables 1 and 2.

Table 1

Total investment outlays in the provinces with diverse GDP level\*  
(PLN per inhabitant)

Groups of provinces by GDP/inhabitant*	2002	2003	2004	2005	2006	2002-2006 Average, PLN
I group, 5 prov., GDP over 95% of the national average	3460	3455	3760	4013	4784	3894
II group, 6 prov., GDP 80-95% of the national average	2294	2385	2620	2978	3497	2755
III group, 5 prov., GDP below 80% of the national average	1887	1970	2201	2442	2774	2255
National average	2858	2902	3155	3434	4062	3282

Source: Regional Data Bank, GUS. Warszawa WWW.stat.gov.pl.

\* I group 5 prov. (Lower Silesia, Mazovia, Pomerania, Silesia, Great Poland).

II group 6 prov. (Kuyavia-Pomerania, Lubuskie, Łódź, Little Poland, Opole, West Pomerania),

III group 5 prov. (Lublin, Podkarpacie, Podlasie, Świętokrzyskie, Warmia and Mazury).



Table 2

Investment outlays in provinces with diverse GDP level\*  
(PLN per inhabitant)

Groups of provinces by GDP/inhabitant*	2002	2003	2004	2005	2006	2002–2006 Average, PLN
I group, 5 prov., GDP over 95% of the national average	2412	2415	2439	2696	3284	2649
II group, 6 prov., GDP 80-95% of the national average	1500	1579	1726	1840	2151	1759
III group, 5 prov., GDP below 80% of the national average	1270	1255	1371	1523	1745	1433
National average	1948	1981	2149	2237	2688	2201

Source: Regional Data Bank, GUS. Warszawa WWW.stat.gov.pl.

\* I group 5 prov. (Lower Silesia, Mazovia, Pomerania, Silesia, Great Poland).

II group 6 prov. (Kuyavia-Pomerania, Lubuskie, Łódź, Little Poland, Opole, West Pomerania),

III group 5 prov. (Lublin, Podkarpacie, Podlasie, Świętokrzyskie, Warmia and Mazury).

The average annual level of investments per 1 provincial inhabitant amounted to PLN 3282 in 2002–2006. Only in group I of the provinces (5 provinces with the highest economic development) were the outlays higher by about 19%, whereas in group II (6 provinces with the average economic development) they were lower by about 16% than the average. The amount of investments acquired by the third group of provinces (of Lublin, Podkarpacie, Podlasie, Świętokrzyskie and Waria and Mazury), i.e. those with the lowest level of economic development, was the smallest. The data presented in Table 1 show that during a year it was lower by about 31% than the average level. However, disparities between the groups of provinces under evaluation were greater during the first year of study (2002). In group I, the outlays were higher than the average by about 21%, whereas in group II they were lower by 19% than the average and in group III they were lower by as much as 34%. During the last year (2006), the relationship was as follows: group I – more by 18% than the average, group II – 14% less than the average and III – 32% less than the average.

The change of the relationship between the three groups was caused by varied investment outlay growth rate. Although the investment outlays in 2002–2006 grew by about 42% on average, the growth rate was lower only in group I – 38%. Total investment growth was the largest in group II – by 52%, whereas in group III it increased by ca. 47%, i.e. above the average growth rate (Table 1). The data provided indicate that the largest total investment per capita was acquired by the provinces with the highest level of economic

development. As it decreased, the investment outlays also became lower. However, it turned out in subsequent years that the disparities became smaller, with the process of reduction of the distance between the group of the most developed provinces and those in group II were most easily observable. On the other hand, the growth rate in the poorest provinces (group III) was above the average, but the values were so slight that the distance between them and the other provinces decreased only to an insignificant extent.

The average annual amount of private investments per capita was equal to PLN 2201 in 2002–2006, which accounted for ca. 67% of total investment outlays. The relationship changed only slightly during the period covered by the study. The private investment in 2002 accounted for 68% of the total investment outlays in Poland and for about 66% in 2006 (Table 2). The average private investment outlays during the entire period in the five provinces comprising group I were higher by 20% than the average private investment for the whole country. The relationship of private investment outlays in the other two groups of provinces to the average level for the entire country was also close to that which characterise the total investment level. Private investment in the six provinces included in group II was lower by about 20% than the average outlays level around the country; the difference was about 35% in group III. Further similarities in the relationship between total and private investments were observed in the first year of study. The disparities between the groups in 2002 were also slightly larger. The outlays in group I were larger than the average value by about 24%, whereas in group II they were lower than the average by 23%, and in group III even by 35%. The relationships in the last year of study (2006) were as follows: group I – 22% more than the average, group II – 20% less than the average and group III – 35% less than the average.

The specification in Table 2 shows that such relationships between the groups of provinces were caused by changes in the private investment outlays. The outlays in the sector during the period covered by the study (2002–2006) rose by about 38%, i.e. more slowly than the total outlays by 4 percentage points. The quickest growth of private investment outlays during the same period was recorded in group II – by about 43%, i.e. more slowly by 9 percentage points than the outlays growth rate in the group. Private sector outlays in group I increased by ca. 36%, which makes it slower by only 2 percentage points than the overall outlay growth rate. Private investment in group III rose by ca. 37%, i.e. more slowly by 10 percentage points than the total outlays.

To conclude: private investment outlays per capita – like total outlays – were the greatest in the group of provinces with the highest level of economic development. The disparities between provinces in this respect decreased during the period under study, with the process of decreasing the distance between the group of the most developed provinces and the provinces in group

II the most easily noticeable. The least developed provinces (group III) had the growth rate similar to the average, hence the distance between them and the other groups of provinces did not change significantly.

### **Summary and conclusions**

1. The level of economic development of provinces significantly affected the amount of total investment. This means that the main study hypothesis has been substantiated. The disparities between the groups of provinces were reduced during the period under study. This stems from the fact that the total investment growth rate was lower in the most economically developed provinces than that in the other two groups. The provinces with the average level of economic development (group II) decreased their distance (measured by the difference in percentage points from the average value for Poland) from group I from 40 percentage points in 2002 to 32 points in 2006. The difference between group III and group I was reduced from 55 points in 2002 to 50 points in 2006. However, the difference between group II and group II increased from 15 to 18 points.

2. The private sector investments accounted for 2/3 of the total investment in Poland during the period under study. The share decreased slightly during the period from 68% in 2002 to 66% in 2006. Although this is a small change, it is the most apparent in the groups of provinces examined. A general analysis shows that the relationships between the total and private investment are similar in all the province groups. The provinces with the average level of economic development (group II) reduced their distance (measured by the difference in percent from the average value for Poland) from group I from 47 percentage points in 2002 to 42 points in 2006. The difference between group III and group I decreased from 59 percentage points in 2002 to 57 points in 2006. The difference between group II and III increased from 12 to 15 points.

3. The most general and synthetic assessment can be reduced to a statement that both public and private investments were located largely based on the investment attractiveness criteria, which is determined by the level of provincial economic development. The economic development of a province plays a double role. On the one hand, it is an indicator of the overall culture and climate for business activities and favourable attitude of local and regional communities to investments, i.e. it represents so-called "soft qualities". On the other hand, it also expresses so-called hard qualities, i.e. position in relation to markets, resources and quality of labour force, quality of roads and transport connections as well as the scientific base. Therefore, regardless of many detailed factors, which affect a decision, and the practical location of a specific investment, the study shows that from the perspective of the entire country,

the investment attractiveness of a province can be expressed by the level of its economic activity.

4. The study, which takes into account changes over time, shows that there is a slow process going on in Poland which is decreasing the disparities between provinces. It involves an increase in total investments and – in similar proportions – in investment outlays in the private sector. It does not include all the provinces to a similar extent. Reducing the distance is visible especially between the group of provinces with the average level of economic development and the best-developed provinces. Although the difference between the provinces with the lowest level of economic development and the average value is decreasing, this does not concern private investments; moreover, the difference is increasing if one considers the group with the average level of economic development.

5. Since the first decade of the 21<sup>st</sup> century, there have been two distinct trends in the process of making and implementing investments. The first one involves mainly public investments which are financed from Community funds or from the local governments; own funds as well as from the central budget. The other group includes private sector investments, with direct foreign investments. Implementation of this group of investments is determined by economic calculations, which means that allocation of private investments in provinces is clearly liberalised. Therefore, regional policy faces two fundamental problems. On the one hand, it is an approach to public investments, which is largely connected with Community funds; therefore, is the demographic criterion of the fund distribution the most appropriate? The other problem is the attitude to liberal principles of inflow of private investments to provinces. Special economic zones are one of the worst solutions for regional development; therefore, this option of controlling investment inflow should be restricted until they are completely eliminated. It may be that it is the most rational and expected solution from the point of view of development of the entire country to leave the decisions in the hands of investors.

6. The study explains part of the doubts. A synthetic assessment has shown that distribution of public investments reduces existing disparities between groups of provinces with different levels of economic development. Private investments, in turn, whose liberal principles of allocation do not increase the existing disparities between regions, actually alleviate them to an extent similar to public investment. Only in the group of five provinces with the lowest level of economic development is the private investment outlay growth rate lower. Therefore, it is difficult to talk about their approaching the average level of economic development.

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