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A

Development trajectory
of Eastern Poland

● Trajektorie rozwoju Polski
Wschodniej

Development trajectory of Eastern Poland: theoretical considerations and strategic recommendations

Trajektorie rozwoju Polski Wschodniej: teoretyczne rozważania i rekomendowane strategie

Tomasz Grzegorz Grosse

Institute of Political Studies of the Polish Academy of Science

Summary

In the article are presented four key challenges of state policy with regard to the trajectory of the development of Eastern Poland. Firstly, the crucial challenge is to bring the trajectory of the development of these regions to the next level. Breaking the regions free of the current constraints, and the hitherto-obligatory approach to the development process can be difficult, and even impossible without courageous intervention of the state. Leaving this task to local or regional level, or to self-regulation of the market is insufficient. The second challenge for the government policy is using the available 'public resources' for the development of Eastern Poland. The third challenge lies in controlling the mobility of production factors in the less developed regions. The fourth challenge is the effective implementation of innovation policy measures in the Eastern Polish regions. In the article it is going to analyse the four aforementioned challenges in greater detail in the context of the draft update of the Strategy of Socio-Economic Development of Eastern Polish up to the year 2020.

Keywords: the trajectory, intervention of the state, self-regulation of the market, innovation

Streszczenie

W niniejszym artykule przedstawiono rozważania o trajektorii rozwoju Polski Wschodniej. Zwrócono uwagę na cztery podstawowe wyzwania dla polityki państwa. Po pierwsze, wyzwaniem jest 'przeniesienie' trajektorii rozwoju omawianych województw na wyższy poziom. 'Wyrwanie' tych regionów z dotychczasowej koleiny procesów rozwoju może być trudne, wręcz niemożliwe bez odważnej interwencji ze strony polityki państwa. Pozostawienie tego zadania władzom lokalnym bądź regionalnym, albo 'samoczynnym' procesom rynkowym jest niewystarczające. Po drugie, wyzwaniem dla polityki rządu jest wykorzystanie dostępnych 'zasobów publicznych' dla rozwoju regionów Polski Wschodniej. Po trzecie, wyzwaniem jest właściwe sterowanie mobilnością czynników produkcji w regionach słabiej rozwijających się. Po czwarte, wyzwaniem jest skuteczne wprowadzanie działań polityki innowacyjnej w regionach Polski Wschodniej. W kolejnej części artykułu została przedstawiona ocena projektu aktualizacji Strategii rozwoju społeczno-gospodarczego Polski Wschodniej do roku 2020 w kontekście wyżej wymienionych wyzwań dla polityki regionalnej państwa.

Słowa kluczowe: trajektoria, polityka państwa, samoczynne procesy rynkowe, polityka innowacyjna

Introduction

All subsequent Polish governments demonstrate growing geopolitical ambitions, especially visible in their desire to play a significant role in European politics. At the same time, they tend to disregard the fact that a necessary condition for influencing international policy is having a strong and highly competitive economy. Such robust economy provides the means to conduct effective foreign policy and improves the standing of a member state on the EU arena. Therefore, a primary strategic challenge for the Polish government's policy is strengthening the country's economy in a relatively short time horizon.

In the context of the discussion of strategic economic development policy in Poland, we can perceive two major risks. The first is a strong tendency towards exogenous development, which was adopted by decision makers after 1989¹. It means that there exists a tendency to base the pace and directions of development on external financial resources and other external factors (e.g. economic conditions in the native countries of major economic partners or decisions taken by foreign investors). The main risk of this model is over-influence of factors that lie beyond the control of domestic actors, and consequent weakening of the possibility of strategic control over economic processes. It is worth noting that the basic instrument of the country's development after 2004, i.e. the cohesion policy, in many ways reinforces the exogenous model. It happens both because of the scale of EU funding, and because key negotiations about growth directions and methods of spending the EU development funds are moved to European level. Another factor contributing to the process is the weakening of the national institutions responsible for development policy and their partial replacement by the cohesion policy instruments. Another problem is that developmental effects tend to be rather superficial and short-term – it is a result of the manner of application of this policy in Poland. Yet another threat to the economic model developed in Poland is the fact that it is based largely on low production costs (e.g. labour costs). In time, with the natural increase of salaries (and an accompanying increase of prices of goods and services), this can cause Poland to lose its competitiveness on the international market².

The second threat is growing spatial diversity in Poland, and especially the differences between the fast-growing capital city (and other metropolitan areas) and other regions. This tendency is reflected in the growing differences between the provinces, and especially the increasing distance between Poland's Eastern

¹ Cf. Nölke A., Vliegenthart A., *Enlarging the Varieties of Capitalism. The Emergence of Dependent Market Economies in East Central Europe*, World Politics, vol. 61, no 4, 2009, pp. 670-702; for more detail confer: T. G. Grosse (2012), *W objęciach europeizacji*, ISP PAN, Warsaw, chapter 7.

² For more detail confer: T. G. Grosse (2013), *The light and shadow of cohesion policy in Poland: on the example of the Europeanization of state administration and development policy*, publication pending.

regions and the rest of the country³. Regions (voivodeships) located on the eastern border of Poland are characterized by peripheral location (particularly in relation to the central areas of the EU – Eastern Poland in fact constitutes the external border of the EU) and the traditional trajectory of development. This trajectory is based on low production costs, and also on low-tech manufacturing industries, especially agro-food industry. Another constraint is the relatively low domestic demand and insufficient export activity, especially to the countries across the eastern border. This development trajectory is stimulated by the cohesion policy projects that introduce measures to improve transport infrastructure (and related environmental protection), but do too little to help strengthen local entrepreneurship and introduce structural change to the economy of Eastern Poland. As a result, the development of these regions – with the exception of some industrial clusters – is fragile, and dependent on the inflow of EU funds and arrival of major foreign investors interested in the region. It is therefore particularly sensitive to changing economic conditions in the countries of Western Europe, who are the biggest economic partners of Eastern Polish enterprises. Thus, this growth trajectory has a low profile and small growth potential, and additionally it is also overly dependent on external growth factors.

The low level of development of the growth trajectory of Eastern Poland finds its confirmation in the 5th Cohesion Report prepared for the European Commission⁴. On the ranking lists presented in this report, the regions located east of the Vistula typically hold the last ranks. This is especially true in the case of indicators that illustrate possible development of innovative economy (such factors as research subsidies, innovativeness ratio, employment in R & D, etc.). The same tendency can be observed in the case of indicators measuring labour productivity in industry and services, unemployment levels, business sophistication, competitiveness and other related factors. They point to the peripheral position of the area, both in terms of geographical location in the EU, and its trajectory of development.

In this situation, we can well pose a question whether the trends described above, observable both in Poland in general and in Eastern Poland in particular, will not be an obstacle to growth in the strategic time horizon? Should Poland's growth be based solely on exogenous growth factors, including heavy dependence on aid provided by the cohesion policy? The Polish Investment and Development Program, which is supposed to be one of the key elements of the national de-

³ Cf. M. Kozak (2013), "Polska Wschodnia: dylematy stymulowania rozwoju", a paper delivered during an international conference of University of Economics and Innovation in Lublin entitled "Trajectories of development of Eastern Poland" Kazimierz Dolny 23-24 May 2013.

⁴ Cf. *Investing in Europe's future, Fifth report on economic, social and territorial cohesion*, European Commission, Luxembourg 2010; J. Szlachta (2013), *Trajektorie rozwojowe polskich regionów – wymiar Unii Europejskiej*, a paper delivered during an international conference of University of Economics and Innovation in Lublin entitled "Trajectories of development of Eastern Poland", Kazimierz Dolny 23-24 May 2013.

velopment policy, is yet in its infancy⁵. In addition, the programme constitutes a challenge with regard to activities coordination between the Minister of Regional Development who oversees cohesion policy and the Treasury Minister who is supposed to oversee the Polish Investment and Development programme as such. Should not the state play a more proactive role in influencing market processes, who in their present shape are focused on aiding 'engines' of growth, and are neglecting more peripheral regions? While the present low trajectory of development in these regions continues, will they not become a social and political time bomb? Can Poland afford to maintain dual growth, where a large part of territory does not pull its weight in building the country's economic potential, and is excluded from the development processes – or even (in the most pessimist scenario) becomes an actual burden?

In order to address these questions, we should refer to literature describing the economic success of relatively small Nordic countries – both on the European and global scale⁶. The main goal of their foreign policies is increasing their autonomy, and not solely seeking support (and protection) of the major powers. At the same time, it can be argued that robust economy constitutes a source of a country's power in international politics. This is one of the tenets of the geo-economic approach, according to which economic policy measures can be used to increase the effectiveness of foreign policy. Thus, resources and economic instruments can be used in this way to increase a country's geopolitical standing, both in terms of its ability to influence European policy, and in terms of expanding its autonomy from the European powers. The abovementioned 'powers' in the case of the Nordic countries are especially Germany and Russia, who have a tendency to overly influence politics of the Nordic countries. Given Poland's previous geopolitical experiences, and taking into account the split between the influences of the country's Western and Eastern neighbours – case studies of the Nordic countries promise to be helpful.

Other features of the Nordic countries' approach to development are likewise worth noting. They combine a desire to improve the spatial structure with a focus on increasing human and social capital. For these reasons, some researchers define this model as a 'social geoeconomics'⁷. One of the striking and fundamental features of the Nordic approach is special attention to using all available human

⁵ The programme is to be implemented by a special purpose vehicle of the Ministry of Treasury linked to the Bank Gospodarstwa Krajowego (BGK), more details at: <http://www.msp.gov.pl>.

⁶ Cf. S. Moisis, A. Paasi (2013), *From Geopolitical to Geoeconomic? The Changing Political Rationalities of State Space*, Geopolitics, 18, pp. 267-283; P. J. Katzenstein (1985), *Small States in World Markets: Industrial Policy in Europe*, Ithaca, Cornell University Press; D. Ornston (2012), *When Small States Make Big Leaps: Institutional Innovation and High-Tech Competition in Western Europe*, Cornell Studies in Political Economy, Ithaca, Cornell University Press. Also cf.: T. G. Grosse (2007), *Innowacyjna gospodarka na peryferiach?*, ISP, Warszawa.

⁷ For more detail confer: D. Cowen, N. Smith (2009), *After Geopolitics? From the Geopolitical Social to Geoeconomics*, Antipode, 41/1, pp. 22-48.

and territorial resources for the process of development. As far as the social dimension is concerned, therefore, the Nordic countries put emphasis on education, on improving the social network, and on raising the social capital. A key element of this policy is the encouraging of social dialogue and creating competent and friendly administration. The goal of these actions is to foster mutual trust and confidence among the citizens, and towards the public authorities of the State. Focus on this last element, namely, fostering trust, should be specially noted. Public policy funds should not be spent for the convenience and safety of civil servants, as is so often the case in Poland⁸. There should not be disposed of according to the internal rationale of the administration. Their purpose is to help their true beneficiaries, according to the country development rationale. At the same time, they should be deployed in such a way as to increase confidence in the government and state structures.

When it comes to territorial resources, the Nordic approach puts great emphasis on the development of spatial structures and on raising the trajectory of development processes in less developed or peripherally located regions. Such regions should be involved in the national growth, and not just become a reservoir of cheap factors of production (an approach that really comes down to the mechanism of 'inner periphery exploitation'⁹). The Nordic mechanism neither leaves those regions to the operation of their own market processes, nor does it support overly exogenous trajectory of their development (which would be dependent on foreign investors or external public support). Even though less developed regions in Nordic countries have to resort to using external aid or rely on the inflow of private investments, they should stimulate their internal (endogenous) potential, including supporting the development of local enterprises. Local businesses not only serve a simple mechanism of income redistribution through increasing the purchasing power and consumption of the local population. The peripheral regions should also not render themselves as areas of unilateral exploitation of local resources by entrepreneurs coming from the central areas.

It should be noted that the basis for the Nordic model of development is building knowledge-based economy. This task is carried out in the strategic time horizon (which is much longer than the seven-year perspective of the cohesion policy). It also stems from the internal and vital needs of the country, and is not solely the result of adapting to the current needs of the cohesion policy. Furthermore, innovation policies of the Nordic countries are heavily regionalized, and therefore they possess a number of territorial impact instruments, tailored to the specific

8 Confer: T. Geodecki, G. Gorzelak, J. Górniak, J. Hausner, S. Mazur, J. Szlachta, J. Zaleski (2012), *Kurs na innowacje. Jak wyprowadzić Polskę z rozwojowego dryfu?* Fundacja GAP, Krakov.

9 This mechanism is described, [in:] M. Hechter (1998), *Internal Colonialism: The Celtic Fringe in British National Development*, Transaction Publishers, 2nd edition.

circumstances of the less developed regions¹⁰. Such instruments are designed to integrate these areas into the development processes of the whole country, using public resources that are necessary for the development of innovative economy (e.g. through measures designed to effect diffusion of development impulses from more developed areas to less developed ones). An important element of this policy is the National Innovation System, which complements the relevant regional structures. It should be noted that a region-specific state innovation policy is a fundamental instrument whereby the public authorities can bring the trajectory of development of the peripheral regions to the next level. In the context of situation in the Nordic countries, and with regard to considerations pertaining to the trajectory of the development of Eastern Poland, one should pay attention to four key challenges of state policy.

- Firstly, as I suggested above – the crucial challenge is to bring the trajectory of the development of these regions to the next level. Breaking the regions free of the current constraints, and the hitherto-obligatory approach to the development process can be difficult, and even impossible without courageous intervention of the state. Leaving this task to local or regional level, or to self-regulation of the market is insufficient. Private investments in the peripheral regions will not be ready to shoulder the risk necessary to change the trajectory of local development. Instead, they tend to perpetuate the extant trends or strengthen economic dependence (exogenous growth). In turn, the local and regional authorities have insufficient resources in order to introduce meaningful change. Specifically, they lack the possibilities of using public resources for national development on a large scale. Changing the development trajectory involves reconfiguring the equilibrium level between the supply and demand of development factors, as well as increasing the role of factors, which increase business efficiency and competitiveness in a sustainable way¹¹.

A somewhat different approach to policy development is observable in the consecutive reports of the World Bank and the OECD¹². These documents place emphasis on fostering economic competitiveness, and creating a unique, country-specific set of characteristics that constitute the development potential of a given territory. The authors of these reports pay very little attention to changing the development trajectory of the most vulnerable regions

¹⁰ More detail in: T. G. Grosse (2010), *Finnish and American experiences and innovative economy development opportunities in Eastern Poland*, [in:] M. Stefański (ed.), *Endogenous factors in development of the Eastern Poland*, University of Economics and Innovation in Lublin, Lublin, pp. 47-72.

¹¹ Cf. R. D. Atkinson, S. J. Ezell (2012), *Innovation Economics. The Race for Global Advantage*, Yale University Press, pp. 145.

¹² Por. *Regional Policy Challenges, New Issues and Good Practices*, OECD 2009, Paris; *World Development Report 2009 – Reshaping Economic Geography*, The World Bank, Washington; *OECD Territorial Review: Poland*, OECD 2008, Warsaw.

or to ‘rescuing’ them from their current development path, either based on tradition or on over-dependence on political and economic centres.

- The second challenge for the government policy is using the available ‘public resources’ for the development of Eastern Poland. As a matter of fact, development policy itself (both on local and regional level) can be treated as such a resource for a political community. It can be defined as the ability to shape the planning, implementation and evaluation processes of social and economic development of a specific community (for example, in order to raise the development trajectory in less developed regions). The public resources also involve appropriate coordination of sectoral policies of the state (including the so-called horizontal coordination of the industrial, educational, scientific and research policies with the regional development policies). Another example of public resources is the coordination of the central government actions and the activities of local governments (the so-called vertical coordination). And yet another example of the utilization of public resources by the state is the ability to initiate diffusion of development processes from the well-developed cores to vulnerable or peripherally located regions. Other important public resources are institutions and skills that enable officials to integrate public policies (i.e. the proper use of the instruments of spatial development of the country).
- The third challenge lies in controlling the mobility of production factors in the less developed regions. It involves controlling the flow of such factors as the financial capital, human resources, and production technologies ‘from’ and ‘to’ least-developed regions. Managing this process sometimes requires skilful handling of market processes that, left to themselves, could perpetuate development problems or lower the development trajectory of a given region. An example of such malfunction is the ‘brain drain’ phenomenon, i.e. the outflow of the most valuable human resources from the less developed regions. The remedy can involve introducing public intervention to complement market processes, e.g. in order to increase diffusion of innovation and technology from the central regions to the less developed ones.
- The fourth challenge is the effective implementation of innovation policy measures in the Eastern Polish regions. As I mentioned before, this is the main instrument that will provide opportunities to change the current development trajectory of these regions. Thus, it will make it possible to stabilize the balance between supply and demand of development factors and likewise to stabilize these factors on a level that will support development durability, efficiency and economic competitiveness.

In the next section of the article I am going to analyse the four aforementioned challenges in greater detail in the context of the draft update of the Strategy of So-

cio-Economic Development of Eastern Polish up to the year 2020¹³. The strategy is defined as a macro-regional strategy of the Polish government, and therefore it ranks among the state's regional policy instruments. It was prepared in consultation with local governments (voivodeships), even though in fact it does not provide for greater decentralization and regionalization of regional policy or putting it in the hands of local government of Eastern Polish regions. Indeed, the main instrument of the strategy will be the operational program for Eastern Poland, centrally managed and implemented probably (as it was done before)¹⁴ by the central government.

The update of the strategy for Eastern Poland was prepared in conjunction with the cohesion policy for the period 2014-2020. The draft strategy does not provide any other implementation instruments beyond the operational programs of the cohesion policy¹⁵, which means that the government does not envisage any internal state policy actions to support the development of Eastern Poland. This situation may in fact strengthen the exogeneity of aid measures, so as to make the development trajectory of these regions overly dependent on external development resources, and strategic and organizational decisions. As the previous experiences with the cohesion policy demonstrate, its chief drawback is the lack of sustainability, and the tendency to strengthen the extant development path. As has been demonstrated, the cohesion policy helps to build the local economic potential only to a very marginal degree. And such potential could doubtlessly become the basis for sustainable endogenous development after the assistance programmes cease to operate.

State policy as change of development trajectory?

It is my aim in this article to look at the regional policy of the state as an instrument of potential change in the development trajectory of Eastern Poland. The change in this context can be defined as improving the balance between the development factors and fostering sustainable improvement of efficiency and economic competitiveness. In this section, I will endeavour to answer the question whether the update of the Strategy of Socio-Economic Development of Eastern Poland up to the year 2020 can efficiently fulfil this task.

¹³ *Projekt zaktualizowanej Strategii rozwoju społeczno-gospodarczego Polski Wschodniej do roku 2020 [Draft of the updated Strategy of Socio-Economic Development of Eastern Poland up to the year 2020]*, Ministry of Regional Development, Warsaw, version of 5 April 2013. This document will hereinafter be referred to in the footnotes as "Draft Strategy for Eastern Poland".

¹⁴ Cf. *Program Operacyjny Rozwój Polski Wschodniej 2007-2013 [Development of Eastern Poland Operational Programme 2007-2013]* approved by the European Commission on 17 July 2009. No K (2009) 5712.

¹⁵ *Draft Strategy for Eastern Poland*, p. 62.

The diagnosis section of the aforementioned Strategy draws the readers' attention to the low development trajectory of Eastern Polish regions, and to the increasing distance between these regions and the rest of the country.

Participation of the macro-region in the GDP in 2009 amounted to 15.2% and this value was 0.6 % lower than in 2002. The GDP forecasts show that the current negative trends are going to continue¹⁶. If no effective action is taken in order to make the development processes more dynamic, then despite the projected increase in per capita GDP, by 2020 the gap between the macro-region and the rest of the country will increase... As a result, in 2020 the GDP of Eastern Poland will constitute only 14.4% of the national GDP, which means that the projected participation in the national GDP will decline by 0.8%¹⁷.

In the remaining part of the diagnosis the authors present the cause of the current development trajectory.

The results of the analyses indicate¹⁸ that the low level of economic development of the Eastern Poland regions is largely the result of low labour productivity, expressed in Gross Value Added per worker (in 2009 it was around 90% of the average worker performance in the national economy for the Warmia and Mazury region, and less than 70% in the Lublin region) and unused labour resources... Eastern Poland regions, with the exception of Warmia and Mazury, are characterized by very high labour involvement in the agricultural sector (22.5% compared to the national average of 12.8%), which has significantly lower productivity than other sectors of the economy. In comparison, the average for this ratio in the entire European Union is just 5.1%¹⁹.

In the light of this diagnosis, the main challenge for the state's regional policy is to improve labour productivity, including reallocation of labour to areas outside the low-efficiency agriculture sector. These attempts should involve courageous action aimed at changing the structure of the local economy, including specialization profiles of the macro-regions. However, the authors of the strategy do not intend to build a competitive advantage in new industries, but instead focus on existing specializations. According to the strategy documents, the agri-food sector will retain its prominent position in the region's economy. There are also no proposals for measures that would support the diversification of employment outside agriculture.

¹⁶ Kusideł E., Lewandowska-Gwarda K. (2012), *Ekspertyza dotycząca projekcji PKB per capita (wg PPS) na poziomie województw (NUTS-2) oraz wybranych podregionów (NUTS-3) do 2020 roku wraz z analizą konsekwencji ewentualnych zmian klasyfikacji NUTS dla polityki spójności po 2020 roku*. Commissioned by the Ministry of Regional Development. *Draft Strategy for Eastern Poland*, p. 13.

¹⁷ *Draft Strategy for Eastern Poland*, p. 13.

¹⁸ In order to identify the main sources of economic development of Eastern Poland the researchers used the growth decomposition method with Gross Value Added per capita. More information about the methodology, [in:] M. Lewandowski (2011), *Identyfikacja determinant rozwoju gospodarczego Polski Wschodniej przy zastosowaniu metody dekompozycji PKB*. A study for the Ministry of Regional Development.

¹⁹ *Draft Strategy for Eastern Poland*, p. 15.

The weakness of the draft strategy is inadequate diagnosis of the relationships between supply and demand on the labour market. The document mentions only the fact that regional higher education institutions provide a surplus of well-educated workers, and that there is no sufficient demand for them among local businesses²⁰. Qualifications of these potential employees are in all likelihood too high or mismatched to the local needs. Compared to the rest of the country, educated people in Eastern Poland have more difficulties in finding employment. It is the main reason for the fact that young people look for work outside their macro-region. At the same time, employers in Eastern Poland (with the exception of the Świętokrzyskie region) find it more difficult than the national average to find suitable job candidates to meet their requirements.

This testifies to the existence of dysfunctions between labour supply by academic institutions and the demands of local businesses. A need arises for public intervention, targeted primarily at regional businesses, in order to strengthen their demand for a better educated workforce and foster the launch of new companies in the industries that offer high-quality and well-paid jobs. A necessary complement to this strategy should be a better adjustment of tertiary education programmes to the needs of local labour markets, e.g. by introducing state-subsidized internships and vocational study programmes that would answer the needs of the leading branches of industry in the macro-region.

The draft strategy includes actions that will introduce innovative solutions into businesses, launch new innovative enterprises and lead to creation of new high-quality jobs in the macro-region. It also proposes actions to adapt the current educational offer to the needs of the labour market of the macro-region and to enhance co-operation between the academia and the business sector²¹. In this way, the Strategy will have a positive impact on the relationship between demand and supply of better-educated workforce. It is as yet difficult to determine whether these actions will be sufficient to change the current development trajectory of the macro-region, especially because the Strategy envisages the current specializations of the regional economy as the basis for the region's development. One could argue that upgrading or updating the current economic profile may prove insufficient as an agent of change.

The know-how of using public resources for fostering growth

A crucial challenge for the state policy with regard to Eastern Poland is the ability to make better use of the broadly defined 'public resources' for the development of the region. Among the resources in question one should mention the horizontal

²⁰ *Ibid.*, p. 33.

²¹ *Ibid.*, pp. 51-54.

and vertical coordination of various development activities, especially the launch of different sectoral policies in the macro-region. The governmental industrial policy has crucial importance, along with innovation, scientific and educational initiatives. Another public resource that can be utilized are the effects of innovation policy implemented in the central regions, that can afterwards be used to strengthen the capacity of the less developed regions. An example of such mechanism is the acquisition of new technologies thanks to research (financed from public funds) conducted in the central regions, and then making them available for application in the peripheral regions. In this way, there occurs diffusion from the developed central areas to the less developed or peripheral areas. Lastly, another important public resource is the ability to provide effective spatial planning of regional investments and new projects. This ability combines two different paths of economic planning: strategic choices of economic specialization and spatial planning.

Assessment of the use of the above-mentioned public resources under the Strategy for Socio-Economic Development of Eastern Poland up to the year 2020 is perforce very negative. This is mainly due to the shortcomings of development policies implemented at the government level, as well as the deficits of coordination between sectoral and regional state policies. It is difficult, for example, to ensure coordination between the priorities of industrial policy and regional policy when in fact there is no valid industrial policy. While there exist strategic documents for specific economic sectors (including the energy sector), these are not properly coordinated with the regional policy.

The draft Strategy for the Eastern Poland declares support for regional specializations, including special support for the region's industrial clusters. This is mainly due to a requirement of the European Commission, who demands member states to indicate 'smart specializations' as a prior condition for obtaining funding from the cohesion policy funds after 2013²². As a consequence, the specializations mentioned in the strategy cannot be treated as an attempt to coordinate regional activities with sectoral policies of the state, but rather as a simple act of compliance with a EU requirement. It should be added that apart from the agri-food sector mentioned above, the document does not mention other regional specializations. It must also be remembered that in the light of the Commission's expectations there is a difference between simply presenting a list of economic sectors present in a given area²³, and making strategic decisions pertaining to the selection of a limited number of privileged 'smart specializations,' that will provide direction for the development of the local economy in the coming years. This second type of specialization is altogether absent in the document in question.

²² Cf. *Research and innovation strategies for smart specialization*, European Commission, Brussels 2012, p 3.

²³ Such a list is included in the Draft Strategy, pp. 27-29.

Likewise, the Strategy does not provide the instruments of growth diffusion from the core (e.g. leading research institutions) to the Eastern Polish regions. One of the proposed actions²⁴ merely mentions the need to strengthen the link between various actors in innovation processes, such as businesses, research centres and public authorities – but without reference to the necessity of diffusion. We can treat this omission as a failure to use a potential public resource for the development of Eastern Poland. It is also a blatant example of the differences between the Polish and Nordic approaches. The Nordic countries, as I mentioned above, are doing their best to utilize such instruments²⁵.

The weaknesses of the draft Strategy lies also in the insufficient use of another public resource, namely planning. One example of this weakness in the decision not to provide locations for planned key investments (new projects). Granted, the diagnosis does contain elements of spatial analysis, and even some recommendations as to locations. The document also mentions that there is a plan to create list of strategic projects implementing the Strategy²⁶. However, at this stage, the authors pointedly decided not to list the selected projects, or their spatial location.

Directing production factors' mobility

In market economy the mobility of production factors, including the flow of financial capital, labour and technology, is seen as a key element of growth. In the case of the European single market, this mobility belongs to the sphere of basic economic freedoms which may be restricted only in exceptional circumstances. However, the mobility of labour, capital and technology can in fact prove destructive for the less developed regions and therefore it should be monitored by relevant public authorities responsible for regional development. An example of mobility pathology is the phenomenon of 'brain drain,' observable in Eastern Poland²⁷, which contributes to the petrification of the existing development trajectory of the macro-region. Another problem might be the excess of imports over exports, which serves as an indication of low competitiveness of the local economy (especially visible in the production of the so-called higher-value-added goods.) Public policy of a member state of the EU should not restrict the flow of factors of production, but can improve situation in problem areas by appropriately targeted public intervention aimed at correcting market processes.

Appropriate performance of state administration in this field requires gathering relevant knowledge, including systematic monitoring of the flow of financial capital, human resources and technology. However difficult gathering speci-

²⁴ *Projekt zaktualizowanej Strategii rozwoju społeczno-gospodarczego Polski Wschodniej...*, p. 51.

²⁵ More details [in:] T. G. Grosse (2007), *Innowacyjna gospodarka na peryferiach?*

²⁶ *Draft strategy for Eastern Poland*, p. 62.

²⁷ *Ibid.*, p. 33.

fic data in these spheres could be, regional policy makers should have this kind of knowledge. This requirement applies also to controlling other, better researched phenomena (e.g. exchange of goods and services at the regional level.)²⁸ In the case of the draft Strategy, the study of production factors' mobility was regrettably very cursory. Some phenomena are not included at all, e.g. information about the balance of trade at the regional level is lacking altogether. Likewise, capital flows and individual regions' potential to attract external investment have not been exhaustively examined. We also do not find information about the structure funds incoming into the macro-region (e.g. the proportion between public and private, and domestic and foreign funds, etc.). Even more serious is the lack of information about the possible outflow of capital from these regions.

Omissions in the diagnostic part of the Strategy make it impossible to make the optimal choice of priorities and design effective measures. For example, in the latter part of the document, there is no an adequate response to the phenomenon of 'brain drain' or the trade deficit. There is also no mention of suitably profiled activities that would stimulate the flow of capital to the macro-region while maintaining support for local entrepreneurs. It is a grave omission as the entrepreneurs as a group provide the basis for endogenous development of local economy, which means that some mechanisms of encouragement and incentive should be included in the Strategy. Designing such mechanisms is not an easy task under the regulations of the cohesion policy, which forbids differentiating public support for businesses on a regional basis. However, some form of assistance for foreign investors that would require them to maintain close cooperation with local companies could be implemented. The Strategy regrettably does not contain such solutions and such thinking, neither in its diagnostic part nor in the part that offers recommendations as to instruments of public intervention.

The authors of the Strategy completely omitted the discussion of development opportunities for the Eastern provinces that are connected to their geographic location on the border of the EU²⁹. This omission again demonstrates the inability of policy makers to perform strategic analysis in a broader horizon, that would take into account not only the complex methodology of studying economic relations between the regions, but also other conditions of development, for example, its geo-political aspects. We can safely assume that promoting economic relations between Poland and its eastern neighbours could contribute to the improvement

²⁸ An example of this are the data gathered by Marshal's Offices of some voivodeships and some academic works: *Handel zagraniczny w Polsce i Małopolsce*, Małopolskie Obserwatorium Gospodarki, Marshal's Office of Małopolska Voivodeship, Krakow 2011; Kuśpit J. (2011), *Handel zagraniczny województwa lubelskiego – główne tendencje i ich przyczyny*, [in:] J. Rymarczyk, M. Domiter, W. Michalczyk (eds.), *Problemy regionalizmu i globalizacji*, Scientific Transactions of the Economic University in Wrocław, no 221, pp. 312-320.

²⁹ Cf. *Raport końcowy. Ocena ex-ante projektu zaktualizowanej Strategii rozwoju społeczno-gospodarczego Polski Wschodniej do roku 2020*, Ecorys Polska Sp. z o.o., Warsaw, February 2013, p. 15.

of diplomatic relations. The said omission also shows that authors of the Strategy quite simply did not make use of a wealth of data, documents and a knowledge that had been put together by the Ministry of Regional Development. Many studies commissioned by the Ministry of Regional Development highlight the importance of the macro-region's location for its future development. For example³⁰, one study indicates that for the regions of Lublin and Podkarpacie trade with Ukraine 'is of high importance' (pp. 46-47). Likewise for Podlasie, trade with the neighbouring Belarus, Lithuania and Russia as well as with other Baltic states is estimated to have 'above average' importance (p. 47).

In yet another study³¹, already in the first sentence it is stated that 'the location of four out of the five regions of Eastern Poland on the external border of the European Union remains one of the most important determinants of their development' (p. 2). Similarly, among the recommendations for updating the Strategy for Eastern Poland it is stated that 'Poland should support the development of cross-border cooperation, regardless of short-term economic conditions. It also means investing in infrastructure, particularly in transport and education, that should be treated as matters of regional policy (and to some extent of foreign policy)' (p. 71). Also other studies commissioned by the Ministry of Regional Development in connection with the ministry's work on the Strategy emphasize the importance of the position on the border for the development of the Eastern Poland³².

The challenge of innovative policy

As I said before, innovation policy is regarded as a crucial instrument for changing the trajectory of economic development in less developed countries and regions. It creates opportunities to improve the balance between growth factors and take it to the next level, allowing for greater efficiency and competitiveness of the local economy. However, this requires a more courageous approach to development on the part of the public authorities and forces the said authorities to shoulder more risks than private entities would be willing to take. It is possible only if public interventions retain their strategic nature, that is, if they are planned

³⁰ T. Komornicki, A. Miszczuk (2012), *Transgraniczne powiązania województw Polski wschodniej*, a study for the Ministry of Regional Development, <http://www.msp.gov.pl> [30.12.2012].

³¹ T. Komornicki, B. Szejgier (2012), *Handel zagraniczny. Znaczenie dla gospodarki Polski Wschodniej*, a study for the Ministry of Regional Development, <http://www.mrr.gov.pl>, [30.12.2012].

³² Cf. B. Kawałko (2007), *Granica wschodnia jako czynnik ożywienia i rozwoju społeczno-ekonomicznego regionów przygranicznych. Synteza*, A. Miszczuk (2007), *Zewnętrzna granica Unii Europejskiej – Ukraina. Możliwości wykorzystania dla dynamizacji procesów rozwojowych*, T. Palmowski (2007), *Współpraca z Obwodem Kaliningradzkim Federacji Rosyjskiej jako czynnik rozwoju regionalnego*, M. Proniewski, M. Proniewski (2007), *Zewnętrzna granica Unii Europejskiej – Białoruś – możliwości wykorzystania dla dynamizacji procesów rozwojowych. Współpraca transgraniczna*, studies for the Ministry of Regional Development, all can be accessed at: <http://www.mrr.gov.pl>, [30.12.2012].

with a time horizon of at least several years, and with the involvement of major financial resources. In addition, a conservative approach, which is based on existing endogenous resources, and is devoid of any willingness to expand or diversify into new economic specializations, does not create adequate opportunities to change the extant development trajectory. A more ambitious approach would focus on radical change in the structure of economy targeted towards finding a niche on the international economic scene and ultimately towards creating favourable conditions for generating customized technology solutions in Eastern Poland (and not only application of others' innovations).

Unfortunately, the draft update of the Strategy of Socio-Economic Development of Eastern Poland up to the year 2020 has to be considered as relatively conservative in terms of stimulating innovation. This is due to its explicit reliance on endogenous modernization of existing resources and focus on pre-existing specializations, whose level of technological innovation is usually quite low. Reliance on existing specializations does not leave much room for introducing innovations, and this mechanism threatens to perpetuate the existing profile and low development trajectory of the macro-region.

In the abovementioned document, no distinction is made between the potential for absorption of external innovations and the ability to create own technology in local research centres or businesses. This distinction could in fact be useful for better targeting of public action and for effecting a gradual shift from the mimetic (imitative) approach to building stronger endogenous resources of innovative economy. The diagnosis only briefly mentions the fact that the structure of expenditure on innovation in Eastern Poland is slightly different from that in the rest of country as it demonstrates a higher share of expenditure on acquisition of knowledge from external sources³³. This finding can be considered as an illustration of the fact that the macro-region shows a tendency to absorb external innovations.

The diagnosis indicates a deterioration in the situation of innovative economy in Eastern Poland. In the years 2006-2010 the total expenditure of enterprises on innovation activities in Eastern Poland decreased by 4% (in services by 10.1%, and in industry by 3,2%). There was also a decline in the share of innovative enterprises in the total number of enterprises³⁴. This may testify to low impact of the existing activities of cohesion policy on the situation in question. In fairness, it should be noted that before 2013 the policy was aimed at supporting innovative economy only to a limited extent, and in the less developed areas it was deployed solely to upgrade existing economic resources and adopting external innova-

³³ *Draft Strategy for Eastern Poland*, p. 25.

³⁴ *Ibid.*, p. 24.

tions³⁵. Still, it can be argued that the notion of fostering innovation in the cohesion policy is highly superficial and treated only in the most immediate strategic perspective. It is focused more on compliance with the formal requirements of the European Commission, than on implementing a well-designed strategy of endogenous development.

The draft document conspicuously lacks any in-depth analysis of the reasons for the weakness of innovative economy structures in Eastern Poland. What is also lacking is a cutting-edge diagnostic analysis that would focus on the comparison of the factors of supply and demand in the sphere of innovation. The strategy only mentions³⁶ the fact that 'conservative behaviour of entrepreneurs' is widespread, and that it inhibits the formation of innovative ideas as entrepreneurs are generally convinced that there is no need for innovative economic activity. This finding may in fact explain why there is such a low demand for innovation in the region. Another related problem probably lies in insufficient supply of domestic innovations, especially ones that would answer to the needs of regional specializations. The main challenge in this situation is the low level of balance between supply and demand factors, which makes it difficult to break the macro-region free from its current development trajectory. Public policy should therefore serve both to condition the potential for creating region's own technological thinking, and to create demand for this innovation in the local business community.

Conclusions

The draft update of the Strategy of Socio-Economic Development of Eastern Poland up to the year 2020 has been prepared to fulfil the requirements of the EU's cohesion policy. In accordance with the requirements of the policy, the Strategy focuses on selected priorities. It identifies three strategic directions: development of transport infrastructure and electricity, labour resources and innovative economy. The strategy will probably allow for smooth implementation of the policy funds in the period 2014-2020, primarily through the implementation of a special operational programme for five regions of Eastern Poland. It can be assumed that the Strategy will contribute to the development of the macro-region, especially through improving local infrastructure and stimulating consumer demand. However, the purpose of this article was not the evaluation of the entire Strategy, but merely answering the question whether it provides an opportunity to change the extant development trajectory of Eastern Poland. This task is of course much

³⁵ Cf. T. G. Grosse (2012), *Europeanization of development policy in Poland: comparison with the Chinese model of endogenous growth*, Scientific Transactions of the University of Economics and Innovation in Lublin, series: ECONOMICS 4 (1/2012), pp. 33-53.

³⁶ *Draft Strategy for Eastern Poland*, p. 26.

more challenging than just ensuring compliance with the formal conditions of the European Commission or even maximizing the absorption of the EU funds.

The analysis of the updated Strategy for Eastern Poland regrettably indicates that the chances of improving the balance of developmental factors in this macro-region towards greater competitiveness and productivity are small. Just as it was before 2013, the cohesion policy will likely perpetuate the extant development trajectory. This is largely the result of weaknesses of policy development planning in Poland – and especially of the excessive dependence on the European planning processes, as well as relying on a conservative approach to the development of the less developed regions on the part of Polish policy makers. Another problem is the immaturity of the national development policy system that would be autonomous from the EU cohesion policy. And yet another problem is the lack of coordination between sectoral policies and regional policies of the state.

Other weaknesses of the planning system are also visible. The authors of the Strategy did not avail themselves of the opportunity to use the available resources and expertise of the Ministry of Regional Development, including studies on the importance of the position of the eastern border regions. We can also observe difficulties in using more complex methodology for the study of mobility of production factors and of the relationship between supply and demand of development factors. Likewise, information pertaining to spatial planning has been disregarded.

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Eastern Poland development dilemmas

Dylematy rozwoju Polski Wschodniej

Marek W. Kozak

University of Warsaw, Centre for European Regional and Local Studies

Summary

The paper attempts to define the main development dilemma facing Eastern Poland. It discusses the main features, development problems and strategic development models of Poland's eastern regions. On this basis, the author draws the conclusion that the key development dilemma relates to the divergence between the declared aims and the implemented development concept, giving priority to hard infrastructure investments. The factor behind is the lack of acceptance for the contemporary development paradigm.

Streszczenie

W opracowaniu tym podjęto próbę zdefiniowania głównych dylematów rozwoju Polski Wschodniej. Dyskutowane są główne cechy, problemy rozwoju i strategiczne modele rozwoju regionów Polski Wschodniej. Na tej podstawie autor konkluduje, że podstawowy dylemat rozwoju ma związek z różnicą między deklarowanymi celami a implementowanymi koncepcjami rozwoju, dając pierwszeństwo twardym inwestycjom infrastrukturalnym. Czynnikiem leżącym u podstaw tej różnicy jest brak akceptacji dla paradygmatów współczesnego rozwoju.

Keywords: Eastern Poland, development dilemma, strategies, paradigm

Słowa kluczowe: Polska Wschodnia, dylematy rozwoju, strategie, paradygmat

The notion of Eastern Poland, earlier used to generally denote less-developed eastern areas (not regions), did not assume full meaning until Chancellor Angela Merkel proposed to finance a special programme for the development of Eastern Poland, comprising the five Polish regions (*województwa*- NUTS 3) which closed the ranking of the European regions in terms of development statistics (measured using GDP). The EU accession of Bulgaria and Romania moved all of these regions upward in the ranking, but the programme itself is still in place, with a new programme round in the pipeline. If we remember the reasons for giving such a name to these five regions, which is against logic and the Polish tradition on the one hand due to the inclusion of one region obviously situated in Central Poland (Świętokrzyskie) and one lying in the north (Warmińsko-Mazurskie), and on the other because of the inclusion of the backward eastern areas of Mazowieckie region, it should be regarded as unfortunate that the notion of Eastern Poland has come to mean an area lying within the boundaries of five administrative regions (*województwa*). Warmińsko-Mazurskie region not only has a different history or structure (e.g. of agriculture), but also its system of external linkages is different. By contrast, Świętokrzyskie region is centrally located between Poland's major agglomerations. In addition to that, it is the only one in this group which shows a higher development dynamic (MRR 2011:20). In many aspects, the inclusion of Świętokrzyskie and Warmińsko-Mazurskie into Eastern Poland is as unfounded as that of Lubuskie, a region similar in terms of GDP and development dynamic. For this reason, in this analysis Eastern Poland shall basically denote three eastern border regions (Lubelskie, Podkarpackie, Podlaskie), which, despite all the differences between them, have such things in common as the level and dynamic of development, social structure, history, as well as similar development problems and difficulties with formulating a strategic concept to accelerate development (these regions, despite huge financial transfers, are still losing ground in comparison to other Polish regions). Many observations concerning their development may apply equally to eastern Mazowsze, but due to the limited availability of statistics at the subregional level (NUTS 3), our analysis will focus on these three regions only. This does not mean, however, that they are unique, since similar development problems can be found in Italy's Mezzogiorno or East Germany (Smętkowski 2012). Likewise, there is no reason – as Antoni Kukliński claims (2010) – to regard the issue of the development of Eastern Poland in isolation from processes taking place globally.

Many concepts, studies, opinions presented by the regional and local authorities of Eastern Poland together with their pools of experts focus on the analyses of the infrastructure provision, underdeveloped transport network, environmental resources (including agriculture), untapped potential of the region's raw materials and benefits that can be derived from their border location. In other words, they epitomise exactly the line of thinking about development issues in categories

typical of the industrial era that came to an end several decades ago, a process which, incidentally, largely bypassed Eastern Poland. One is indeed tempted to describe Eastern Poland in the above categories, as these are easily observable characteristics, but should be looked at as consequences rather than causes. Therefore, what this paper strives first and foremost to prove is that the overall lack of adequacy of development concepts pursued in Eastern Poland to the actual problems and possibilities is the key problem facing this region, and not the underdeveloped infrastructure or failure to exploit the alleged potentials of Eastern Poland. In other words, it is the mental barriers, ill-advised obstinacy in holding on to development precepts whose usefulness ended with the industrial if not agrarian era, and not economic phenomena or infrastructural constraints that should be regarded as the main problem obstructing development. Another factor to blame is the claiming attitude, shaped under the communist regime and ideologically embedded in the concept of neo-colonialism which, for want of genuine colonies, was projected onto peripheral areas (cf. a review of the concept by Zarycki 2009). However, the full use of this concept does not seem quite convincing (in the history of Poland, these areas were both subjects and objects of colonisation, a fate shared by the whole country – but this is better explained in other categories than the concept of development). Still, it should be observed that in the context of territorial policies, such a concept seems quite handy when it comes to justifying the demands posed for the central authorities in the development programmes. This remains a pertinent issue – how could we otherwise explain the widespread practice of including into regional development strategies the construction of transport networks (mostly motorways and expressways, also airports), i.e. investments which obviously are not among the region's competences?

In order to verify this hypothesis, we should look at the following issues:

- development drivers in the 21st century;
- review of key development problems facing Eastern Poland;
- adequacy of the directions of intervention to development problems.

The basic methodology used for the purposes of this paper has been the analysis of the already existing data (public statistics, documents, expert's reports, other scientific studies). Despite many studies and programmes dealing with Eastern Poland, most of them in their overly extensive diagnostic aspects focus on easily available public statistical data, leaving little room for qualitative analysis, a key exercise for the evaluation of any strengths and weaknesses¹. Such an approach may also have consequences that are easy to overlook, e.g. focusing on indicators that are typical of the old development paradigm, only because – unlike the new paradigm's indicators – they are easily available and have been collected for a long time. The

¹ A palpable change of approach can be observed in the preparation of the strategic documents for 2014–2020 e.g. in Lubelskie. The role of qualitative analyses might also be increasing in other such documents.

'newness' is not the only reason for this; another is the fact that many components of the new paradigm are 'soft', qualitative in character, often difficult to capture or define, even if for operational purposes only (such as social capital or tolerance).

Development drivers: the new paradigm

In the past several decades, we have witnessed some significant processes, even if they are delayed in relation to more developed countries.

The first one has been the positive impact on Poland's development of its participation in supra-national integration processes. Contrary to popular belief, the major benefits from EU accession, a most ambitious and complicated integration project (though not free from defects), are not associated with the use of Cohesion or Common Agricultural Policy (CAP) funds². Such funds, totalling over EUR 10 billion gross per annum³, definitely increase the income (GDP) and quality of life in Poland (see the findings from the Hermin, MAMoR3, EU Impact Mod III macroeconomic analyses commissioned by the Ministry of Regional Development; MRR 2011: 28-9). They not as much broaden the freedom of investment for the public authorities and the private sector, but rather increase the scale of funds available for investments, which however need to remain in compliance with the increasingly stringent requirements posed by the European Union (and in this sense that freedom is in fact somewhat limited). Poland's development policies, tied strongly together with EU-funded policies, brings short-term benefits for the country (or rather, the authorities), which help to maintain broad-scale social and equalising policies thanks to the financing of a considerable portion of capital expenditure in various spheres from EU funds.

Such macroeconomic studies usually prove that the benefits for the national income (and the labour market) provided by European Union funding will cease once these funds no longer flow in. Worse still, what could happen then is an overall fall in GDP owing to the need to cover the maintenance costs of the physical infrastructure built with the EU funds. Excessive investments in infrastructure might as well turn out to be a trap; examples of this can be found e.g. in the former GDR, Spain, Portugal or Hungary (not to mention the regions that organised grand-scale sports events and incurred exorbitant costs to build the infrastructure that as a rule was needed for one event only) (cf. Kozak 2010). In each of these countries, excessive infrastructure investments were among the factors that both speeded up and exacerbated the economic crisis. It is also commonly acknowledged that the need to supplement EU funding with domestic funds can

² Speaking solely in terms of the financial transfers, the value of exports to the single market exceeds many times over the value of transfers from the EU budget; the financial transfers from Poles working abroad (mostly in EU countries) reach nearly EUR 4 billion per annum.

³ In net terms, the quite sizeable amounts contributed to the EU budget by the Polish authorities should be deducted (an equivalent of nearly 1% GDP).

easily put the public budgets dangerously in debt, and the successes in acquiring EU funds in the first years might lead to a shortage of own funds at a later period. In Poland, too, more and more municipalities will be forced to reduce their investment outlays for this very reason. It could be said that this would not be a huge damage in itself, and a short-lasting one. However, this statement will be true only on the condition that the initial investments were made, taking into account factors that helped initiate long-term development processes (in other words, that were supply-oriented and not only demand-oriented). There is precious little evidence to corroborate such a thesis. Maybe this is the reason why we can now observe a strong tendency on the part of entities providing development supports and experts to look at infrastructure, mainly in the sphere of transport, in terms of its relations with economic development (Komornicki 2013). The opinion that only such infrastructure investments should be made which directly help eliminate so-called bottlenecks is increasingly gaining currency. Contemporarily, construction of infrastructure in other situations will not drive development. Investors steer clear of Eastern Poland (just as they bypass many other European regions having similar parameters), often giving a convenient excuse, i.e. the lack of transport and communication links⁴. This is a rather polite way of evading the uncomfortable truth: that with the exception of few cities in Eastern Poland, the bulk of the region does not have the attributes that are sought when locating business activity, and has little to offer. Thus, we come the second issue, that is, the question of the paradigm.

During less than four decades, i.e. within living memory, Poland – similarly to other countries – has undergone a process of restructuring and replacing factors that determine development. This means that factors that facilitated development in the past, today have lost in significance, giving way to new ones. In the past, the proximity of raw materials, energy, railway, available and cheap labour played a crucial role. Today, it is rather the availability of a large urbanised area serving as a sales market, flexible and diverse workforce, business environment institutions, well-developed higher education and R&D sector, and institutional environment that foster development (law, taxes, finances, public administration), an open and creative culture and well-developed linkages with other development centres both nationally and internationally (network society). Since these issues have already been discussed in many publications (also by this author), this paper only briefly outlines the key features of the contemporary development model (based on the new paradigm).

⁴ Although neither Kołobrzeg nor Zakopane is easily accessible, both these cities remain very popular tourist destinations, unlike Opole or Zielona Góra, which have very good transport links.

Firstly, long-term competitiveness of the economy is mainly created by a high level of innovation, i.e. one that provides original and expensive products for the market, requiring highly qualified and well-paid professionals for their production⁵.

Secondly, neither low manufacturing costs nor export of raw materials can guarantee a lasting competitive advantage, also because the price of such goods largely depends on external factors (economic performance, supply, price fluctuations, etc.).

Thirdly, globalisation of the economy and mobility of capital have drastically increased the freedom of location, where business follows people and looks for places with a concentration of human, social and creative capital. This is especially true for high-tech and creative industries, i.e. those that define the competitive advantage of a given region (or country).

Fourthly, the role of transnational corporations in the global economy is increasing, at the expense of the state viewed as an entrepreneur, an active participant of economic processes (after: Gorzelak, Kozak 2012: 116-7).

At the same time, the global economy, and thereby also competition, is responding by adapting itself: on the one hand, a stratum of supranational institutions is being developed (such as the European Union, business groupings, UN agencies), and on the other, smaller enterprises tend to take root locally and strike mutual alliances to make use of the so-called 'here and now' knowledge, as a result of which they are able to develop niches which are impenetrable to transnational corporations.

An overall review of these characteristics indicates that their concentration (i.e. factors fostering development) can be found only in some areas, mostly urbanised ones, and broadly understood creativity finds optimum conditions in large cities and metropolises. Therefore, if a region strives to achieve a better place in competition rankings, it should necessarily place an emphasis on the development of its agglomerations, as a result of which also more peripheral areas will have better chances to participate in the benefits. Another conclusion is that over-concentration on building the development potential based on the endogenous (internal) resources of a given area may prove unsuccessful since the development dynamic is triggered by external demand, linkages with the surrounding areas, capacity for absorption and use of exogenous factors for internal needs, e.g. by creating the conditions for using the region's own resources. It only seems logical that those centres which develop the fastest know how to make use of the positive feedback loop between their own resources and external ones, using them for mutual attraction and for supporting their development needs. These can be both

⁵ The geographical distance is not crucial here; it is difficult to imagine a more peripheral place than New Zealand or Finland in Europe. For this reason, the widespread belief about the close cause-and-effect relationship between improved transport accessibility and development is in fact little but a fallacy. Let me point out to any sceptics that some Polish regions with superb transport connections might lose as much as 50% of their population by 2050 (e.g. Opolskie or Śląskie) (Szczech-Pietkiewicz 2013: 86).

quantitative and qualitative factors, with a growing emphasis on the latter, such as creativity, human capital, social capital, competitiveness. According to Pike et al., any one-sidedness in embracing strategic development foundations may lead to unexpected and definitely unwelcome consequences (2006: 15). Therefore, the art of development involves informed choices and a skilful combination of strategic measures not only in the socio-economic sphere, but also the institutional one.

Key development problems of Eastern Poland

A discussion of development problems should begin with a recapitulation of the basic statistical data. These data will be provided for the regions in question and, as reference, for Mazowieckie, Świętokrzyskie, Warmińsko-Mazurskie and Poland itself.

Let us start with the basis statistics (Table 1).

Tab. 1. Eastern Poland: basic data for selected voivodships

Region	GDP per capita, 2010, in PLN	Labour productivity (GVA per 1 employed), in 000 PLN, 2007, *	R+D expenditure as % of GDP, 2007, *	Average monthly disposable income per person in households in 2010, in PLN	Employment in primary sector (agriculture, forestry and fishery), 2008, in %, *	Activity ratio, 2011, in %	Unemployment rate, 2011, in %
Lubelskie	25079	52.08	0.54	1025.80	29.6	53.0	13.9
Mazowieckie	60359	100.88	1.07	1622.96	12.4	55.1	10.6
Podkarpackie	24973	52.94	0.36	937.85	22.8	50.4	17.9
Podlaskie	26985	59.68	0.20	1224.92	27.2	53.5	12.8
Świętokrzyskie	28134	57.24	0.12	1062.78	25.1	48.5	17.3
Warmińsko-mazurskie	27228	67.68	0.29	1096.87	12.7	52.4	16.8
Polska	37096	75.55	0.57	1226.95	14.0	53.3	13.0

Source: GUS 2012; * – MRR 2010.

The data shown in Table 1 demonstrate the gap between the regions of Eastern Poland, the national average and the most-developed Mazowieckie region (that is, the Warsaw metropolitan area), and show the disparities existing between them (regardless of the fact that the eastern part of Mazowieckie does not diverge from the neighbouring regions in terms of development statistics). As we can see, the incomes are at a low level (GDP and disposable income). And, quite worryingly, the gap between these regions and those which are closing the distance between them and the EU-27 average is still widening (MRR 2011: 20). If the present trend was to be extrapolated, in a span of one or two generations at the latest the difference in the per capita income levels in relation to the national average could reach a ratio of 1:2 in Eastern Poland. In a nutshell, this can be explained by high

employment in agriculture, relatively low R&D expenditure (as compared to the national average, and extremely low as compared to the EU average), and – last but not least – low labour productivity due to an obsolete economic structure. On top of that, there is an observable outflow of well-educated youth from the region and in effect a generally lower percentage of the population with tertiary education, which can be viewed as proof of the poor capacity of weakly urbanised Eastern Poland to create jobs for its own university graduates (MRR 2010: 101). Some caution is advised while analysing the labour market, as the situation in Eastern Poland is relatively favourable only superficially. It is because, paradoxically, the prevalently dispersed farm ownership (with farms ranging from an average 3.2 ha in Podkarpackie to 12.4 ha in Podlaskie) and the attendant high share of people employed in agriculture, gives an incomplete picture of the actual unemployment; under the Polish law, all members of a farmer's household, just like the farmer himself, are automatically accorded the employed status. Therefore, the actual unemployment rate is significantly higher since in a considerable part, albeit difficult to capture, it has the form of hidden, agrarian unemployment. Extremely low productivity of mostly subsistence-oriented, scattered and obsolete agriculture (the only major exceptions being the area of Łomża and fertile soils in the south-east of Lubelskie) and a small share of market services and hi-tech industries are not sufficient to compensate for the negative impact of agriculture on the economic foundations of existence. Similarly – it could be added – to extensive social transfers (Kozak 2013), which can alleviate to some extent the threat of poverty but which – paradoxically again – cripple the propensity of the authorities to undertake the necessary (and costly) restructuring and modernisation of the economies of Eastern Poland's regions. The issue of the role the elites (the authorities) play in the development of Eastern Poland has recently been discussed in the literature of the subject (Miszczuk 2010), although, in my opinion, it is not sufficiently recognised.

It should also be noted that Eastern Poland's regions are beneficiaries not only of EU funds, tax exemptions, preferential social insurance schemes for farmers (KRUS), but also of an inflated system of budget redistribution. Table 2 presents the statistics about the regional incomes to illustrate this issue (Table 2). It goes without saying that districts (*powiaty*) and municipalities (*gminy*) have far bigger funds at their disposals than the regions themselves.

Tab. 2. Income of selected regions (NUTS 2) in 2011 (in million PLN)

	Total income	Own income	Earmarked state budget subsidies	General state budget subsidy	Incl. the compensatory portion of general subsidy
Poland	14104.0	5703.1	1820.2	2941.8	1273.6
Lubelskie	752.5	158.0	116.4	318.2	160.9
Mazowieckie	2452.9	1700.9	174.6	247.6	-
Podkarpackie	887.0	173.3	158.2	332.1	160.5
Podlaskie	442.3	96.7	55.2	165.5	97.1
Świętokrzyskie	520.8	137.6	117.5	149.8	72.6
Warmińsko-Mazurskie	520.4	117.6	70.8	212.7	117.9

Source: *Rocznikstatystycznywojewództw 2011*, Warsaw: GUS, p. 590.

Although territorial redistribution has reached an unprecedented scale in Poland, no other Polish region receives such a sizeable amount of the general subsidy nor has such a substantial share in the subsidy's compensatory part as do Eastern Poland's regions. One could pose the question whether being so dependent on external funding helps foster development, or rather improve – though not very effectively – the quality of life.

In one of my earlier works dealing with the development dilemmas of Eastern Poland, I identified the following 'Gordian knots':

- Mostly dispersed, unproductive and underdeveloped agriculture, employing (in Lubelskie) nearly 30% of the workforce;
- The region's incapacity to create a sufficient number of quality jobs;
- Insufficient accessibility of Eastern Poland and its subregional centres providing higher-order public services⁶; and
- Claiming attitudes prevalent among the regional community (Kozak 2011).

From a broader temporal perspective, when analysing the development problems of Eastern Poland, it is hard to escape the conclusion that these factors are basically a consequence of a broader phenomenon. Invoking yet again the contemporary development concepts (and factors), and taking into account the *longue durée* processes, which we definitely encounter in Eastern Poland, I would seek the main development problem in a wide cultural sphere, including widespread acceptance for the dependence on social transfers and placing an unfounded confidence in the expansion of physical infrastructure as the main development driver, a view associated with the traditionally conservative fear of economic restructuring and its consequences. Such a stance often leads to reproducing such regional elites that best embody this line of thinking and therefore meet the expectations of the society at large. The peripheral areas should be strengthened not by their continued decentralisation (in line with the belief that 'we know best ourse-

⁶ This should be regarded as a consequence of an obsolete economic structure (excessive dependence on dispersed agriculture), and therefore delayed urbanisation processes, which is bound to affect the picture of the availability of social services and investment needs in that regard.

ives what we need'), but – as Tomasz Zarycki put it (2011) – but by reinforcing, both financially and intellectually, the regional elites that could formulate selected strategic goals and effectively raise widely understood external support. There are two pre-conditions of success: the quality of the elites (understood as their ability to look at development drivers in a modern way) and the capacity of the elites to make an effective use of both endo- and exogenous resources. The latter also involves using the resources in a way that goes beyond expanding the hard infrastructure, since it alone can help remove some of the bottlenecks stifling development, but will not increase innovation nor competition. It would be expedient to answer the question whether the best-developed European countries are modern and wealthy because they have modern infrastructure, or maybe they also have modern infrastructure because they are modern and wealthy? The latter answer is contemporarily the only right answer. Physical infrastructure is a necessary but insufficient condition to foster development.

Adequacy of the direction of the intervention to development requirements

The regions of Lubelskie, Podkarpackie and Podlaskie have a number of features in common which negatively distinguish them when compared to Poland or the European Union, and which effectively make them stagnating regions, i.e. one that are developing in nominal terms (GDP), but which are increasingly widening the gap between the national average. Metropolisation processes play a minor part in their development; the level of education and qualifications of their human resources is lower; the economy is unproductive owing to its obsolete structure; the social and human capital lags behind the national average, and political views are among the most conservative ones. In addition, these regions as a rule lack a highly developed strategic infrastructure, and their location on the border with mostly less-developed countries does not encourage imports of development drivers. Also, it is a fallacy (one historically known in relation to Poland as a whole) to think that Eastern Poland can, or will, be an intermediary between the East and the West. This is as sensible an approach as the belief that Greenland's location half way between Europe and America makes it an ideal intermediary.

None of the cities situated in Eastern Poland (maybe with the exception of Lublin) has the human or institutional potential of a quality that is required to turn them into genuine growth centres, capable of initiating and stimulating their surrounding regions.

Based on the experience gained so far, it can be concluded that, save for few exceptions in the form of old industrial centres, these regions lack endogenous factors that could provide a solid development base. Eastern Poland does not have any resources or potentials that would be significant in the national or Europe-

an context. On the other hand, relying on external (exogenous) market resources is often questionable since the vast majority of the areas concerned do not have the location assets which could attract inward capital (both financial and human). EU funds do not influence development in any significant way (as the level of innovation is too low to effectively utilise the funds earmarked for promoting innovation⁷), although they can considerably improve the living standards. In a common sense approach, a development model should be adopted that aptly combines endogenous with exogenous factors, one in which active restructuring processes would be pursued with a view to boosting attractiveness (in investment, labour market and social terms) while drawing freely on the best practices abroad, and not one that shuns any thought of changing the *status quo*.

The economy of Eastern Poland is generally characterised by an obsolete economic structure, with all the consequences of this fact. Agriculture can be viewed as the main culprit, not only because of its significance for the labour market but also due to its attracting huge and demoralising social transfers made under the Common Agricultural Policy and several national policies (fiscal, social insurance, infrastructure).

In this case – leaving aside the effect that external transfers have on the standards of living – we can speak of a significant lost opportunities effect: these transfers, instead of modernising the economy of Eastern Poland, by financing the improved quality of life in fact tend to slow down modernisation processes as a consequence of their limited pro-development activity. This is a demoralising factor, in addition to a treacherous sense of a safe living and, worse still, the widespread conviction that if something goes wrong, it must be through the fault of the central authorities⁸. A factor that additionally makes such a state of affairs possible is the so far accommodating approach of the regional elites, which apparently see the key to the future in maximising such transfers (or ‘arranging’ support), and consider any restructuring as a threat, as this would inevitably be reflected in the social and economic structure (not to mention the political one). This is echoed in the strategic development documents (e.g. 2007-2013), which are more focused on satisfying the needs of the largest possible group of regional stakeholders than on the modernisation and restructuring interventions, which are critical and consistent with the new development paradigm. One consequence of this is the low quality of the strategic documents, and thereby of concepts

⁷ Unfortunately, here as in the whole of Poland, promotion of innovation was widely interpreted as ... infrastructure investments in buildings and lab equipment. It is an open secret that there is a shortage of qualified staff (quantitative and qualitative) to allow a full use of the existing research potential.

⁸ This is justified to some extent: the system of mass, often hidden transfers to a handful of social and vocational groups (some of which are huge, e.g. farmers) originated as a consensus of vocational interests and politicians from all levels, especially in the Parliament. After 23 years of pursuing a policy that has in no significant way helped modernise or restructure the farming sector, there can be no justification for continuing it any further.

relating to development (Kudłacz 2007, Kozak 2011). In this context, the Eastern Poland Development Strategy and the Eastern Poland Development Programme are two notable exceptions (2007-2013)⁹.

Undoubtedly, one side effect of both the actual nature of the economy of Eastern Poland, and the approach to its development (both nationally and regionally) is not only a low level of innovation but also (with few exceptions) lack of belief in the adequacy of the development of innovation to the region's needs, accompanied by the widespread conviction – the traditional understanding of which is being questioned by scientists abroad – that the main if not the only obstacle to development is the underdeveloped physical infrastructure. On the one hand, such a conviction is deeply rooted in the bygone (industrial) era and does not run contrary to societal memory, and on the other it is politically neutral and poses no threat to the regional interest groups, especially if we bear in mind that decisions on the majority of strategically important investments are made by the central, not regional, authorities. Therefore, every new strategic investment is regarded as a net gain for Eastern Poland, and one that comes at practically no cost. However, this is only an illusion, which ignores the share of the region's own contribution and, in many cases, maintenance costs.

Eastern Poland, and particularly its border regions, are currently undergoing a relatively slow process of depopulation with concurrent, slow urbanisation processes, involving concentration of the population in cities and their functional surroundings (cf. OECD 2011). This is one of major processes affecting the social and demographic structure in territorial terms. In the long term, ageing is as serious a threat for Eastern Poland as it is for Poland as a whole. It could even be more serious because the outdated economy is not capable of creating quality jobs that could help retain highly qualified professionals and graduates from the region's tertiary institutions in Eastern Poland. The outflow of young people from Eastern Poland is not an issue of quantity but one of quality. It is not caused by the 'draining' of the indigenous resources by the external surroundings, but by the weaknesses of the regions and lack of employment prospects, not to mention a modern and convincing strategic development policy¹⁰. Another factor that fosters migration is the generally low and recently decreasing quality of instruction at the tertiary level (excluding a number of specialisations). Similar factors restrain the influx of external resources: if there are no modern, well-paid jobs, there can be no well-developed and demanding market for goods and services. If so, why should one invest in such a region?

⁹ Although their main weakness is that, contrary to good planning practices, the strategy was finalised two years after the operational programme had been approved, i.e. it could not have informed it in terms of the general concept.

¹⁰ In the Regional Innovation Strategy for one of Eastern Poland's regions, one of the three defined priorities was ...agriculture. No comment. (Gorzelać et al. 2006).

This brings us to the issue of the institutional system in Eastern Poland. As in most unitary states, this system in its general characteristics results from the political and national arrangements – (although the last UNDP report reveals some considerable interregional differences, e.g. in education or health) (UNDP 2012).

Therefore, the quality of the institutions' operations may be analysed rather than their quantitative features. There has been no comprehensive research into this issue but, based on the information available, we may assume that there is a qualitative problem in many cases. It refers e.g. to the above-mentioned instruction in higher education institutions, very limited participation in the scientific life of Poland and Europe, which involves very few researchers, not even faculties or academic centres (Olechnicka 2012), reservations concerning the quality of services provided by many business environment institutions (Kupiec, Wojtowicz 2012). Analyses of the quality of the institutional system, administration in particular, are mainly based on the data from international rankings which, by their very nature, do not look into any regional disparities in the analysed states. Since Poland is ranked low in these rankings (also in comparison to the EU), we may rather safely assume that, also in Eastern Poland, the quality of the institutions is comparatively low (cf. MRR 2011:181 ff.; DSRK 2012).

The predominant social conservatism is an additional significant factor from the point of view of development needs; undoubtedly, it is slowing down the transformation of Eastern Poland by the traditional petrification of attitudes and behaviours. It is also demonstrated by certain phenomena in the political sphere. The results of parliamentary elections confirm that the voters in Eastern Poland, especially south-eastern Poland, are among the most conservative ones.

It is difficult to argue that such multifaceted directions of interventions were conducive to the restructuring and modernisation of Eastern Poland. Quite the opposite, they slowed down the natural restructuring processes, but met the expectations and perceptions of the majority of the region's inhabitants. A general question could be posed here: where were the Polish elites when the policy for the rural areas and agriculture was being formulated? When choices of objectives and tools were actually possible?

Between the old and new paradigm

The development dilemmas of Eastern Poland can be analysed in two strategic dimensions:

- the adopted time horizon (long- or short-term development plans), and
- relation to the contemporary development paradigm (preference for the industrial era paradigm or for the contemporary paradigm underpinning the Lisbon strategy or Europe 2020 strategy).

Fig. 1. Development models

LONG	A decelerated structural transformation	D laying the foundations of the region's modern development
SHORT	B maximising short-term gains (quality of life)	C a consensus of paradigms
planning horizon type of paradigm	OLD (industrial)	NEW (knowledge-based economy)

Source: prepared by the author

The juxtaposition of these two dimensions helps identify (e.g. on the basis of strategic documents) the most desirable, pro-growth approach D and the least desirable approach slowing down restructuring and modernisation (A). In between them, the indirect (development, B) and consensual (C) approaches will be found.

One supporting factor could be the role and quality of the broad picture, or vision, in selecting strategic goals. If such goals are formulated on the basis of a traditional SWOT analysis, then in all probability the strategy drawn up in such a way will strive to amend the old structure instead of being focused on the desirable state of affairs in the future, and will look back rather than forward. Since the work on the updating of the development strategies for individual regions is currently well under way but has not been completed yet, it cannot be discussed in this paper. One thing may be said here, though – that the work on the new strategies is, pragmatically, (maybe too pragmatically) very strongly linked to the EU financing planned for the period 2014-2020. It should also be added that as a rule the operational programmes were prepared by separate teams (which is not much of a problem) and were finalised before the work on the strategies was completed (which can be a problem). However, it is not possible as yet to draw any final conclusions.

If we look back at the strategic documents for the years 2007-2013, we can see that they mostly combined approaches representing a mixture of models A and B. They did incorporate some elements of the new paradigm (model C), but mainly in the sphere of declarations only: even in the sphere of R&D, culture or the academic potential, in the operational dimension, which is the ultimate test of any implemented strategy, it usually meant nothing more than investments in infrastructure¹¹. And it is not the building but the people that make a university or a concert hall. Even in the sphere of innovations in the economy, projects that were little more than

¹¹ Worse still, higher education institutions often invested profusely in infrastructure, ignoring the decade-old forecasts anticipating a rapid decrease in student numbers. The question as to whether the recent infrastructure investments will accelerate (and if so, to what extent) the downfall of many such institutions will probably be answered by future research.

modernisations were termed and implemented as ‘innovations’, a practice that was followed across Poland. The latter phenomenon (known as goal substitution) can also be encountered in other intervention areas, mostly revitalisation (repeatedly replaced by repairs) or tourism where, instead of developing new tourist products and related jobs, the funds were spent on the renovation of town halls, churches and other historic buildings but having no significance for the development of the tourism sector. Clearly, this phenomenon has not been restricted to Eastern Poland or Poland at large, but has characterised regions covered by the ‘convergence’ objective, i.e. those less-developed ones. It is the only way to explain the definitely more stringent requirements posed for the beneficiaries of EU co-funded policies in the 2014–2020 period. One flagship example here is e.g. concentration on 11 themes as well as micro- and macro-economic conditionality. Naturally, individual arrangements will still remain objects of negotiations at many levels. If, however, development policies (or at least operational programmes) could be safeguarded against goal substitution in practical terms, then the implementation conditions of future programmes and projects could become surprisingly difficult for regions with institutional deficiencies (such as e.g. Eastern Poland).

Taking into account the features of Eastern Poland and the anticipated changes in the institutional environment (i.e. regarding the operation of European policies in crisis conditions), altering the attitudes of Eastern Poland’s regional elites and diffusion of change in the society should be regarded as the main dilemma for the coming years. Reforming the EU policies is an important factor that can facilitate such an effort. If it turned out, however, that an attempt to adapt the European policies (mostly Cohesion policy) to the perceived needs of Eastern Poland’s region prevails, this could further petrify the views and attitudes to development that even today should be regarded as a serious internal limitation. In this way, the hypothesis that the position of Eastern Poland is invariably a result of *longue durée* processes, of marginalisation that began as early as the end of the era of the Reformation and the beginning of the Counter-Reformation, would be corroborated.

Development strategies and the economic crisis

The factors and features demonstrating how an overall continuance (rather than development) strategy was pursued in Eastern Poland have been broadly discussed above. These have relied on making effective demands from the central authorities (and, post 2004, also from the European Union) and a broad use of the EU funds and social transfers aimed to maintain the quality of life while limiting the scale of restructuring processes. Such a policy, which apparently seems to be strongly backed by the main political forces and the residents of Eastern Poland, is obviously not very effective: despite receiving substantial amounts of support, farmers are not wealthy people, and in consequence of a lasting, relative reversal

of Eastern Poland in terms of development (with shrinking GDP as compared to Poland's average), the level of affluence of the region's residents (particularly in rural areas associated with traditional farming) will certainly decrease. This is clearly a path that leads nowhere.

An evaluation of this overall policy (or a bundle of policies) for Eastern Poland, the largest per capita beneficiary of the transfers for agriculture, rural areas and in general terms the population threatened with poverty and marginalisation, cannot ignore objective or external factors. Throughout the better part of the period when these policies were being defined and then pursued, save for a short period of a considerable downturn in the years 1997-2000, Poland went through a period of robust development, in the face of which the necessary cost of such policies seemed both justified and neutral for the state budget (let alone the EU). Now, however, we are witnessing a slow but steady process of economic slow-down and a growing threat of recession. One comparison comes to mind: that of the crisis before World War II, when Poland was one of the last countries to be hit by the economic crisis, paid its huge costs and was among the last countries to have overcome it. Let us look at the threat of recession only hypothetically. If the economy is faced by the crisis and the budget funds are depleted, how long will the societal and political acceptance for continued generous subsidising of the living standards of many citizens, including the residents of Eastern Poland last? How long will, unquestioned so far, social solidarity survive? What scale of the crisis is needed to launch budgetary reforms aimed to reduce the extent of income redistribution from better-developed and wealthier regions to those less-developed and poorer? How likely is it that Eastern Poland will not be affected by these reductions? And, most importantly, are the elites and communities of Eastern Poland mentally ready to stand on their own, 'regional' feet? It might also turn out that, as a result of such budget problems, it will be much more difficult to use EU funds to prevent and minimise consequences of the potential crisis.

Let us hope that despite the 23 years of building what is ultimately an ineffective social system, the restructuring and modernisation of Eastern Poland's regional economies will finally be effected, a move that will boost their competitiveness and affluence, thus allowing transfers to be reduced. And that such a change will be made as a result of deliberate reforms, and not necessitated by the crisis.

Conclusions

The low level of economic development, deficiencies of the institutional systems and the prevalent social and political conservatism are features characterising most of the territory of Eastern Poland. Together, they make up a set of characteristics which are the distinguishing marks of these regions and which obstruct modernisation processes. The considerable and long-lasting reliance

on social transfers only exacerbates those limitations. In this context, the main dilemmas are related to the capacity to undertake sweeping reforms, mostly social in character. That is why, the essential dilemma related to the formulation and implementation of the development policy for Eastern Poland is about the mentality and the capacity of the regional elites to set and achieve development goals that are oriented towards a more active change of the *status quo* and building the foundations of a modern economy rather than towards short-term goals, mostly aimed to improve the quality of life while leaving the present interests intact. In this way, the new development paradigm, characterising the knowledge-based economy and the building of information society, would be adopted. Without a radical change of thinking about development, there can be little hope that the negative trend of widening the development gap Eastern Poland and the rest of the country will be reversed.

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Development Trajectories of Polish Regions: The EU Dimension

Dylematy rozwoju Polski Wschodniej: Perspektywa UE

Jacek Szlachta

Warsaw School of Economics

Summary

The key message of this paper is that the EU membership has been the key determinant of changes in the socio-economic situation of Polish voivodships in the 21st century. The position of voivodships has changed significantly as a result of impulses arising from the European integration, with the European cohesion policy playing a particularly significant role. The first part of this paper presents the impact of European integration on the socio-economic development of Polish regions. The next part discusses the current developmental position of Polish regions and the third one characterises European determinants of the development path for Polish regions in the coming years.

Streszczenie

Podstawowym wnioskiem tego opracowania jest to, że podstawowa determinanta zmiany pozycji socjalno-ekonomicznej polskich województw wynika z członkostwa w Unii Europejskiej. Sytuacja województw zmieniła się znacząco w rezultacie impulsów płynących z europejskiej integracji, w której europejska polityka spójności odgrywa znaczącą rolę. W pierwszej części tego opracowania przedstawiam wpływ procesu europejskiej integracji na socjo-ekonomiczny rozwój polskich regionów. W kolejnej części artykułu zajmuję się aktualną pozycją rozwojową polskich regionów. W trzeciej zaś części pracy charakteryzuję determinanty ścieżek rozwoju polskich regionów w nadchodzących latach.

Keywords: European cohesion policy, regional development, regional policy, European integration, regional competitiveness

Słowa kluczowe: Europejska polityka spójności, rozwój regionalny, polityka regionalna, integracja europejska, konkurencyjność regionów

1. The impact of European integration on socio-economic development of Polish regions

In early 1990s local territorial government was established in Poland (in cities/towns and municipalities). However, this was not accompanied by corresponding systemic changes at the regional level. For nearly the entire decade of 1990s Poland had 49 small voivodships (provinces) governed by representatives of the central government i.e. the voivods. This led to a situation where the existence of comprehensive regional policy in Poland was challenged given the absence of local government entities at the voivodship level. The successes of local government at the level of cities/towns and municipalities, as well as the size of Poland, a country which cannot be reasonably managed when only two levels of administration (central and local) are self-governed, inevitably led to the growing need to undertake a profound systemic reform of the state. It was assumed that the key element of the reform would be to vest the intermediary level (between the local and national one) with adequate competencies. However, only starting from 1 January 1999 a comprehensive administrative reform of the country was launched, involving, among others, 16 large voivodships instead of the previous 49 small ones. The new voivodships had their own budgets and were governed by electable representative bodies which could become the core territorial units of intervention for the European cohesion policy in Poland. This enabled the regional policy in both essential dimensions which ensure its comprehensiveness, i.e. inter-regional (central government vis-à-vis individual voivodships) and intra-regional (voivodship governments within each voivodship).

The European integration process, eventually leading to EU accession, was the key external determinant of the socio-economic development of Polish regions in the last twenty years. The first important stage on Poland's path to membership was the Association Agreement with the European Community, signed on 16 December 1991 and effective from 1 February 1994. The Agreement states, among others, that the key aim of the association was to achieve Poland's membership in the European Union. Thanks to political changes which occurred in early 1990s, Poland gained access to pre-accession funding, initially under PHARE, and then also under ISPA and SAPARD. Those programmes did not only cover the macro-economic dimension of pre-integration efforts but also the regional dimension of EU's structural aid for Poland.

Having negotiated the terms of accession and having achieved the ratification of the agreement by all EU member states at that time, Poland joined the EU on 1 May 2004, gaining all obligations and privileges associated with the membership. This organisation, the deepest integration grouping in the modern world, runs an active structural policy on the continental scale. One of its tokens is the European cohesion policy, which employs non-returnable instruments such as structural

funds and the Cohesion Fund, and the financial engineering instruments built on this basis, as well as returnable instruments, usually launched via the European Investment Bank. The intensity and directionality of support granted under the European cohesion policy through structural funds, focuses on the regional level of NUTS 2 areas (*Nomenclature of Units for Territorial Statistics*). Poland has sixteen voivodships at this level, among 270 regions in 27 EU member states¹.

It is very often the case that the benefits of Poland's EU accession are reduced nearly exclusively to financial transfers available under the European cohesion policy. However, the impact of the European Union on the development trajectories of Polish regions is much broader and involves, among others, the following:

- Access to the European Union market. This is translated, among others, into the opportunities arising from increased exports and location of FDI in Poland's regions;
- European standards concerning not only individual products and services but also, among others: economic policy, accessibility of public services, introduction of European legal regulations (*acquis*);
- Opening of member states' labour markets to exports of workforce from Poland and financial transfers made by those working abroad, as well as the related *know how* acquired in this process and often used in various regions;
- Accelerated structural changes in Poland's economy and society driven by European integration.

The European cohesion policy offers a favourable framework for shaping a modern regional development policy in Poland. Among others, this is done through the following:

- Regional policy standards concerning: programming, management, financing, project selection, monitoring and evaluation;
- Considerable resources available under structural funds and the Cohesion Fund that would allow to co-finance regional development in Poland on a major scale;
- Introduction of a decentralised model of European cohesion policy implementation, which has facilitated the empowerment of the voivodship level of government.

However, many of those benefits are statistically documented only on the national scale whereas only approximate estimates are available at the voivodship level.

¹ NUTS (*Nomenclature of Units for Territorial Statistics*) is a universal regionalisation system in the European Union. A total of three levels are identified: NUTS 1 (macroregions), NUTS 2 (regions) and NUTS 3 (subregions). In the classification which has been in force in the European Union since 1 January 2012 the following were identified: 97 macroregions, 270 regions and 1294 subregions. In Poland, the following were identified: 6 macroregions, 16 regions and 66 subregions. This applies not only to territorial statistics compiled by EUROSTAT, but also the intensity of allowable state aid and European cohesion policy solutions where NUTS 2 regions are beneficiaries.

Such benefits may include, among others, full and unlimited access to the EU market for Poland-based economic agents and the resulting opportunities for increasing imports and developing business ties. Approximately 85% of Polish exports end up in EU countries, most notably in Germany (approx. 26%), France (approx. 7%), United Kingdom (approx. 6%), Czech Republic (approx. 6%), Italy (approx. 6%) and the Netherlands (approx. 5%). In 1990-2010 Poland's exports rose approx. six times (in fixed prices) and were directed towards EU member states. Various analyses point out that Poland's exports are concentrated in the strongest regions, with the greatest benefits from export expansion being reaped by regions associated with major urban centres and those located near the Western and Southern Polish frontier.

The systemic transition opened Poland to foreign direct investments (FDI) and the EU accession accelerated this process even further. Data show that major cities and their regions are the key FDI targets. Except the Podkarpackie voivodship, FDIs play a marginal role in Eastern Poland. This territorial structure of FDI, especially greenfield investments, was related to the fact that the best business environment which is essential to stimulate business activities was present in Warsaw, as well as Katowice and its Upper Silesian agglomeration, Cracow, Łódź, Poznań, Tri-city and Wrocław. As a result, this is where most FDIs are located.

Another important factor for Poland's socio-economic development in the 21st century was the adoption of European standards associated with the harmonisation of legal regulations in force with the *acquis communautaire*. The EU furnished Poland with essential legal regulations for modern market economies. Apart from the formally binding regulations, indicative guidelines also play an important role, as they provide a model for countries and regions of the Community. Overall, the standards of common market have probably worked for the benefit of the strongest regions where the difficult adjustment processes were much easier.

As a pillar of its existence, the EU has laid down four freedoms, one of them being the freedom of movement and employment. Given the demographic potential of the new member states which raises concerns as it might upset the balance on local labour markets, 2004 marked the start of a transition period for citizens of new member states (incl. Poland) regarding the freedom of their employment in the old EU member states. Those restrictions were allowed to persist for up to seven years following the accession. Various member states gradually repealed those restrictions after 2004, with Germany and Austria (the last two countries) waiting until 1 May 2011. After labour market opened for Polish citizens, this propelled emigration, estimated at 1.2 million people. Migrations entail a variety of consequences, interpreted as both positive and negative, such as financial transfers from migrant workers to Poland which are estimated to reach, on average, nearly PLN 20 billion a year. Polish regions are highly diversified in terms of the scale of migration versus the population. The loss of population due to

this cause varies from under 2% in Greater Poland (Wielkopolska) to over 8% in the Opolskie voivodship.

The structural changes in Poland's economy accelerated significantly thanks to its EU membership. In recent years, the services sector saw rapid growth, with the role of industry declining somewhat, and the significance of agriculture generally diminished. However, the Common Agricultural Policy slows down the restructuring processes in agriculture, which is a paradox. Those changes are more visible when we look at the structure of sources of national income yet they occur much more slowly on the labour market. Institutions operating within the financial sector and the business environment evolved as important elements of regional socio-economic structures. The European Union co-financed the development of supply-oriented segments of Poland's economy, which considerably augments the competitiveness of various voivodships. Voivodship capitals, including the country's major urban centres, have been the greatest beneficiaries of structural changes in recent years. However, Poland's voivodships continue to be highly diversified in terms of the degree of modernity in their structure since farming, hunting, forestry and fishing concentrate between 4% of those working in Silesia to over 30% in the Lubelskie, Podlaskie and Świętokrzyskie voivodships. Since work efficiency in agriculture reaches around 20% of the figure recorded in industry and services, a high share of agriculture translates into low per capita income. Overall, farming, hunting, forestry and fishing in Poland generate merely approx. 4% of gross added value, with the extreme values being: 1% in the Śląskie voivodship and 11% in the Podlaskie voivodship.

As mentioned earlier, following its EU accession Poland gained the opportunity to support its socio-economic growth under the European cohesion policy. This enabled Poland to build potential in its multi-annual development policy. The first time horizon covered the years 2004-2006, the next one pertained to 2007-2013, and the next one covers 2014-2020. The activities undertaken under the European cohesion policy are focused primarily on the poorest NUTS 2 regions, where the Gross Domestic Product (GDP) per capita using purchasing power parity (PPP) does not exceed 75% of the EU average. None of the Polish voivodships achieved that level, either in 2004-2006 or in 2007-2013. After 2013 only Mazowieckie, the most affluent region in Poland, broke out of that group. Under the aforementioned policy the average annual financial transfers to Poland versus the GDP (*cap-ping*) reached slightly over 2% in 2004-2006 and approx. 3.5% in 2007-2013, with 2.35% being the target suggested for 2014-2020.

Poland decided to launch a decentralised model of the European cohesion policy, with regional operational programmes becoming their important component, facilitating the empowerment of the regional level of governance. Overall, during 2007-2013 approx. 36% of financial resources from structural funds and the Cohesion Fund were managed at the voivodship level. The regional allocation algo-

rithm adopted by Poland and the launch of a special macro-regional programme dedicated to Eastern Poland (in 2007-2013) meant that the weakest regions received very strong support within the regional segment. However, economically strongest voivodships, associated with major urban centres, were the main beneficiaries of sectoral programmes.

The European cohesion policy enabled considerable decentralisation of public finance. This is a beneficial development since territorial governments allocate a relatively higher share of funds to public investments in comparison with central governments (Table 1). As can be seen from the data, the level of decentralisation in public finance achieved by Poland is close to the EU average but also considerably higher than in most unitary states. Of course, the size of Poland and the considerable diversity of its socio-economic structures at the voivodship level means that the role of the regional system is important.

Tab. 1. Decentralisation indices for public investments in Poland versus EU-27

Relationship	Poland	EU-27
Public investments vs public spending	8.8%	5.4%
Public spending at the regional and local level vs total public spending	30.8%	33.6%
Public investments at the regional and local level vs total public spending	66.7%	67.4%
Public investments at the regional and local level versus public spending at those levels	19.0%	10.0%

Source: Information base of the Council of the European Municipalities and Regions (CEMR) – Dexia, 2008-2010.

2. The current development position of Polish regions

During the last decade, the strong development drivers arising as a result of the European integration helped to bring about radical improvement in the situation of Poland as a whole and of its regions. Since the statistics concerning the origination and distribution of national income in the territorial dimension are compiled with some delay, it is only now that we can relatively reliably describe the position of Poland's regions at the turn of the first and second decade of the 21st century.

Tab. 2. GDP per capita using PPP in voivodships, versus EU-27=100 in the years 1997-2010

Voivodship	1997	2008	2009	2010	Change 1997–2010
Mazowieckie	62.9	89.9	97.3	102.5	+39.6
Śląskie	49.9	61.6	65.2	67.4	+17.5
Wielkopolskie	46.3	59.5	64.6	65.6	+19.3
Dolnośląskie	46.0	61.3	66.3	70.9	+20.3
Zachodniopomorskie	44.3	51.7	53.4	54.8	+9.1
Pomorskie	43.5	54.1	59.2	60.5	+15.7
Lubuskie	40.5	48.9	51.9	53.2	+11.4
Opolskie	40.1	48.3	49.7	50.1	+10.0
Kujawsko-Pomorskie	39.0	49.2	51.5	52.9	+13.9
Łódzkie	39.0	53.1	55.5	58.0	+19.0
Małopolskie	39.0	49.2	52.2	53.5	+14.5
Podlaskie	35.4	41.6	44.8	45.8	+10.4
Warmińsko-Mazurskie	35.2	42.3	44.9	46.2	+11.0
Lubelskie	33.6	39.6	40.9	42.6	+9.0
Podkarpackie	33.4	39.3	41.6	42.4	+9.0
Świętokrzyskie	33.3	45.6	47.2	47.8	+14.5
Poland	44.2	57.0	60.8	63.0	+18.8

Source: Author's calculations based on Produkt krajowy brutto. Rachunki regionalne, Główny Urząd Statystyczny i Urząd Statystyczny w Katowicach [Gross Domestic Product. Regional Accounts. Central Statistical Office and Statistical Office in Katowice], Warsaw-Katowice, 2012 and previous editions.

The per capita Gross Domestic Product (GDP) adjusted for the purchasing power parity (PPP) in relation to the EU-27 average is a synthetic measure which reflects Poland's position in the European Union. In 1997-2010, this index for Poland rose from approx. 44% to approx. 63% of the EU average. Such data were compiled for the new voivodships for the first time ever in 1997, and the most recent data relate to 2010. As can be seen from Table 2, no other voivodship except Mazowieckie exceeded 50% of the EU-27 average then. In seven subsequent voivodships the index rose above 40%, and in the remaining eight voivodships it was merely just above 30% of the EU-27 average. Over those thirteen years the position of Polish regions improved, not only in quantitative but also in qualitative terms as the GDP per capita adjusted for PPP exceeded the EU-27 average in Mazowieckie in 2010, rising slightly above 70% in Dolnośląskie and exceeding 60% in three more voivodships. The index fell below 50% of the EU-27 average only in five regions of Eastern Poland (Lubelskie, Podkarpackie, Podlaskie, Świętokrzyskie and Warmińsko-Mazurskie).

During the period of 1997-2010, the GDP increases versus the EU-27 average reached approx. 40 percentage points in Mazowieckie, which places this voivodship among the fastest-growing regions in the European Union. An increase of approx. 20 percentage points was recorded in four voivodships associated with large urban centres: Dolnośląskie, Łódzkie, Śląskie and Wielkopolskie (and slightly less in Pomorskie: nearly 16 points). The lowest increases, close to about 10 points, were recorded in four regions of Eastern Poland: Lubelskie, Podkarpac-

kie, Podlaskie and Warmińsko-Mazurskie, as well as in voivodships of Western Poland which had a much better starting position: Lubuskie, Opolskie and Zachodniopomorskie.

Back in 1997 merely one voivodship in Poland had the GDP per capita adjusted for PPP above 50% of the EU-27 average, whereas in 2010 as many as eleven regions could boast such a result. The table documents, among others: a considerable developmental distance between Polish voivodships and regions of Western Europe, the pace at which Polish regions were catching up during the last ten years or so, as well as the aggravating inter-regional disparities, demonstrated through the much faster socio-demographic development in areas associated with major urban centres.

In the conditions of economic crisis, which began in the European Union and around the globe in 2008, we noticed a very particular situation. In the years 2008-2010 both Poland as a whole and its individual regions caught up considerably, in comparison with in the preceding few years. In the case of Mazowieckie and Dolnośląskie, it was respectively 12.6 and 9.6 points whereas Śląskie, Wielkopolskie and Pomorskie improved by more than 5 points. The least visible improvement was recorded for Opolskie, Świętokrzyskie and Zachodniopomorskie (respectively 1.8, 2.2 and 3.1 points). The situation did not deteriorate in any region, which means that Poland's regions turned out to be generally highly resistant to crisis in the European Union.

However, despite the very significant socio-economic progress which occurred in Poland in the last two decades the position of Poland's voivodships versus other NUTS 2 regions in the European Union continues to be very weak. The Fifth Cohesion Report, published in 2010, shows the situation of 16 Polish voivodships against the background of all 270 NUTS 2 regions in the European Union. Overall, the position of Polish voivodships is very weak except for Mazowieckie, which stands out with its most favourable indices. Polish voivodships achieve high index values for education, reasonably good indices on waste water treatment and Internet penetration. Regrettably, our regions also have dramatically low productivity in manufacturing industry and services, low levels of R&D expenditure, per capita public investments and regional innovations.

Tab. 3. Positions of Poland's regions, by indices of the Fifth Report on Economic, Social and Territorial Cohesion

No.	Index	1	2	3	4	5	6
1	Productivity in services and industrial manufacturing in 2007 – 6 classes	0	0	0	1	2	13
2	Quality of governance in 2009 – 5 classes	0	0	0	10	6	
3	Households with broadband Internet access in 2009 – 6 classes	0	0	12	4	0	0
4	Competitiveness index in 2010 – 6 classes	0	0	2	5	8	1
5	Share of population aged 30–34 with tertiary education in 2008 – 5 classes	1	0	10	5	0	
6	Employment index for population aged 20–64 in 2008 – 6 classes	0	0	1	5	9	1
7	Early school leavers aged 18–24 in 2007–2009 – 6 classes	14	2	0	0	0	0
8	Expenditure on R&D in 2007 – 5 classes	0	0	1	5	10	
9	Unemployment rate in 2008 – 5 classes	0	1	5	7	3	
10	Share of population with at-risk-of-poverty income in 2008 – 5 classes	0	2	3	7	4	
11	Urban waste water treatment capacity in 2007 – 6 classes	7	1	2	4	2	0
12	Public investments per capita at purchasing power parity in 2002–2006 – 6 classes	0	0	0	0	2	14
13	Regional innovation index in 2006 – 5 classes	0	0	0	5	11	

Source: Investing in Europe's future. Fifth report on economic, social and territorial cohesion, European Commission, Brussels, November 2010; and Investing in Europe's future. Fifth report on economic, social and territorial cohesion. Foreword. Summary. Conclusions. Maps and Comments, European Commission, Brussels, November 2010. Band 1 signifies the most favourable situation and band 5 and/or 6 signifies the least favourable one. The quality of governance index was removed from the final version of the cohesion report.

OECD systematically reviews the territorial capacities of its member states, global metropolises and selected regions or macroregions. In 2008 OECD conducted such a study for Poland, revealing meaningful progress achieved by Polish regions during the previous two decades.

3. European determinants of future developmental paths for Polish regions

The profound crisis of the global economy meant that forecasts regarding the socio-economic development of member states and European regions had to be adjusted downwards. It is assumed that the Gross Domestic Product per capita in Poland will increase considerably in 2020 yet all macroeconomic assumptions by 2020 were fundamentally adjusted downwards in view of the economic crisis. Poland's 2020 Mid-Term National Development Strategy assumes that in 2020 the GDP per capita using PPP would exceed 74% of the EU average even in the worst-

case scenario whereas the optimistic scenario provides for up to 79% of the EU average until 2020.

Various reports indicate that the dynamics of socio-economic growth of Poland has been declining because simple reserves, initially available during the transformation of the economic system and then during the European integration, are getting exhausted. This calls for a radical change in the model of Poland's EU membership and for developing a new model of socio-economic development.

Under the ESPON programme a research project was launched in 2011 the *European Territory 2050* (ET2050), to be completed in 2014. In the first phase the major megatrends were identified which will affect the territorial development of the European Union until 2050. They are as follows:

1. *Population ageing in Europe.* The European Union records a serious shortage of workforce due to low birth rates. There is a very strong external migration pressure EU coming from the south (Africa, Middle East, Asia), which, however, has a very varied impact on regions and countries. The population in economically active age has been shrinking significantly, which affects economic growth and competitiveness of many European regions. The population ageing in Poland has a very negative effect on innovativeness and dynamics of social and economic processes.
2. *Backtracking economy.* In recent decades, the gap in GDP and the level of welfare between Europe and other continents has been shrinking. Because of economic crisis we have seen the growth rate fall dramatically in countries and regions of the European Union. The European economy has a higher-than-average dependence on services and advanced tourism whereas re-industrialisation is limited to traditional industrial zones. One opportunity for the European Union arises from the increasing significance local markets of agricultural produce. Certain sectors, such as transport, food processing and design may remain competitive, yet Europe is facing the risk of losing its leadership in many currently strong sectors (among others: microelectronics, computers, software, medicine, nanotechnologies).
3. *Evolution of social attitudes.* Regretfully, we have seen an erosion of traditional values, which historically contributed to Europe's socio-economic success. The detrimental social attitudes which encourage societies to run into debt at the expense of future generations might still persist. The ageing of European societies entails a stronger perceived reluctance to undertake risks. Undoubtedly, societies of various European countries will be more than ever sensitive to environmental problems. People's increased identification with specific territories, making them less open to external influences, the rising protectionism and the reliance on own resources mean that the potential of EU regions and countries will not be fully leveraged. More affluent local territorial units

develop locally-focused strategies of protection against their surroundings. One should expect that informal relations will continue to dominate in the peripheral and less developed zones and in some districts of cities.

4. *Slower innovativeness.* What poses a threat to the European Union is a situation when the new wave of technology associated, among others, with nanotechnologies, biomedicine, energy sector and artificial intelligence will progress more slowly than expected. The implementation of currently available new-generation technologies will most likely progress more slowly as well. Ineffective and unproductive scientific research will be carried out on a greater-than-expected scale. Ineffective research planning will be a problem, preventing the much needed concentration of funding, leading to the development of market-oriented products etc.
5. *Energy shortages.* Energy prices have been rising much faster than recently anticipated. Although significantly more power is being generated from renewable resources, the coming decades will see a continued role of carbon-based fuels. Additionally, the stronger impact of climate change will necessitate more restrictive carbon reduction policies, slowing the economic growth even further. Also, the EU will become more reliant on external energy sources. As a result, conflicts in territorial systems, related to resources and the risk of their unavailability, will become more common and are likely to aggravate.
6. *Reversed accessibilities.* In the global world, some central places of the European Union, such as the leading urban centres, are perfectly accessible in terms of transport and communication, and connected with the leading centres of socio-economic capacities around the world. Those networks effectively connect key locations in Europe and worldwide. Metropolises of the European Union and its member states have achieved very favourable parameters of connectivity. However, at the same time, the position of many geographically adjacent locations which are in the shadows of such growth hubs is gradually degrading as they become more excluded and isolated.
7. *Polarised development.* Recent years have seen a profound change of the regional development paradigm in developed economies worldwide. This is expressed, among others, in the provisions of the Europe 2020 strategy. We are facing a situation where socio-economic development is likely to be more polarised between major towns and the rest of the region, and between zones within cities. The spending targets under the European cohesion policy are being redirected, negatively affecting the weakest areas. We are also likely to see a reduction of financial transfers and dwindling solidarity between EU regions and countries.
8. *Hybrid geographies.* In recent decades, Europe has seen a gradual evolution of spatial development structures from a traditional model of a dense city,

with activity spots around transport stops, towards less strict regulations on spatial planning and the increasing suburbanisation pressure, which is particularly strong in large and medium-sized cities. Consequently, Europe might become a continent with poor spatial order and unclear spatial arrangement of various functions where there will be no clear distinction between urban and rural areas.

9. *Blocked structural reforms.* If the European Union wants to return to its favourable developmental trajectory, it needs to undertake profound socio-economic reforms. Quite likely, if essential changes are implemented, they will run into the social acceptability barrier. We will experience growing budget balancing problems related to the provision of public services in the social sphere. The investments in infrastructure and R&D will focus on just a handful of areas as they will be, limited in their scope and size. We are also likely to see reduced solidarity with poorer non-EU countries. Territorial governments will be far less effective than at present, in all spatial dimensions. Political power will be exercised by populists or technocrats who are reluctant about reforms. Political power will partially shift towards transnational corporations.
10. *European deadlock.* In order to effectively tackle challenges currently faced by the European Union, essential political reforms are needed as they will enable more efficient handling of new challenges. The decision-making mechanisms currently existing in the EU do not allow it to compete effectively against other parts of the world. There is also a threat that the European integration will not progress to become deeper, and if a need arises for indispensable co-operation of member states, only some policies will be co-ordinated at best, e.g. fiscal issues, migration or labour market. This may give rise to a model of multiple-speed Europe and block further enlargement.

Overall, the aforementioned megatrends set the directions and define the scale of challenges faced by the European Union in the coming decades, fundamentally slowing the socio-economic growth of regions in the EU and in Poland. A failure to tackle those challenges effectively would lead to a profound degradation of the socio-economic position of Europe's regions in the coming decades.

The evolution of the European cohesion policy means that the focus fundamentally shifts from cohesion to competitiveness. This is best illustrated by the *Position Paper* for Poland which describes the priorities of EU structural intervention in Poland in 2014-2020. The *Position Paper* contains a concise core text and an extensive appendix. According to the *Position Paper*, Poland's essential problem is to maintain high growth dynamics of national income given that simple developmental reserves are being exhausted. In order to bridge the gap between more and less affluent EU member states and to tackle structural problems more effectively, Poland needs to maintain a favourable growth trajectory. The *Pa-*

per points out the significance of the goals of Europe 2020 strategy, as delineated for Poland in the 2020 National Reform Plan. The following were identified as the most demanding challenges for Poland:

1. *Insufficient infrastructure* (transport, ICT and energy). Particular attention was drawn to the railway network and broadband Internet penetration;
2. *Unattractive research and innovation systems and low competitiveness of business*. The *Paper* points out to the very low R&D expenditure in Poland as well as the problem of fairly ineffective way of handling structural problems. This curbs Poland's innovation potential whereas its SMEs have limited capabilities to operate on the Single Market;
3. *Low labour market participation*. Poland's particular problem is a low share of employed population among older age cohorts, and a very young age at which people exit from the labour market (notably women). The document points out a number of worrying syndromes on the labour market, also those including youth. This situation is accompanied by the inconsistencies of the education system and a high share of people at risk of poverty;
4. *Inefficient management of resources*. Poland's economy is at least twice as energy-intensive as the average for the European Union. The situation is also disadvantageous when it comes to material-intensity of production and the emission of pollutants. The deficit of water resources is also a source of concern.

The findings of this diagnosis were linked with four priority funding areas proposed for European funds in 2014-2020, defined by the European Commission as follows:

1. **Modern infrastructural networks** (transport, energy and ICT) which are essential for economic growth and for job creation. This should fundamentally improve territorial accessibility in various spatial dimensions. Railway transport should be a high priority during 2014-2020. The importance of developing integrated transport systems in metropolitan areas is also mentioned. In the case of energy infrastructure, the key identified problem was the need for profound modernisation of the power grid. The enormous investment needs in the sphere of Information and Communication Technologies were aptly identified, with a special focus on the *hardware* dimension, i.e. availability of web access.
2. **Innovation-friendly business environment**. Poland needs a radical increase in the level and share of private R&D investments. Its economy needs a boost with regard to innovativeness and competitiveness, focusing primarily on the SME sector, and this should also drive employment. The development of e-economy plays a particularly important role as it will reduce the excessive transaction costs dramatically. Access to financial services, including advanced ones, is an area of deficit, particularly affecting the SME sector. It is assumed that efficient and business-friendly public administration will drive positive changes in Poland,

primarily by simplifying administrative procedures, improving the quality of legal services and a systemic approach to e-government.

3. Increased labour market participation through improved employment situation as well as social inclusion policy and education policy. In the pursuance of this priority, the key element is to integrate the most vulnerable social groups on the labour market, such as senior citizens, women, youth and disadvantaged people (facing the risk of discrimination and social exclusion), and to propose specific intervention lines for each of those groups. Another important direction for the Commission's intervention is a radical improvement in the quality of education, mostly vocational and tertiary. Another identified need is the effective implementation of the lifelong learning model and to promote universal access to quality preschool education.

4. Environment-friendly economy which makes an efficient use of resources.

The European Commission expects that investments in this area will rise significantly in 2014-2020 in comparison with 2007-2013. Positive structural changes are expected in the economy, with much more efficient use of energy, characterised by much lower demand for carbon-based fuels. This should be facilitated by a strong increase in power generation from renewable resources, which creates the potential to apply innovative technologies. While implementing this priority, attention should also be given to nature conservation and better management of natural resources, incorporating an array of activities, above all concerning the soil and water resource management, flood prevention, conservation of natural resources, promotion of biodiversity, mitigation of climate change and rational management of coastal zones.

These conclusions are also confirmed in the provisions of the 2020 Mid-term National Development Strategy. This document identifies three areas of strategic intervention:

1. *Efficient and effective state.* The following goals were identified within this strategic area: (1) a transition from administration to growth management, (2) ensuring funds for development-oriented measures, and (3) enhancing the conditions for the fulfilment of citizens' individual needs and activities;
2. *Competitive economy.* The following goals were identified within this strategic area: (1) enhancing macroeconomic stability, (2) increasing business performance, (3) improving innovativeness of the economy, (4) developing human capital, (5) increased use of digital technologies, (6) energy safety and the environment, (7) increased efficiency of transport;
3. *Social and territorial cohesion.* The following goals were identified within this strategic area: (1) social integration, (2) ensuring access and specific standards of public services, and also (3) enhancing the mechanisms of territorial ba-

lancing of development as well as spatial integration which is essential for the development and full utilisation of territorial capacities.

This is an innovative approach since the previous mid- and long-term strategies developed in the 21st century Poland never focused so much on the importance of efficient and smooth-running state/government, and cohesion was not addressed at such a low level. Clearly, the essential dilemma of Poland's regional policy, i.e. competitiveness versus cohesion, has been solved in favour of the former.

Those provisions clearly document the European Commission's excellent grasp of the capacities, deficits and development needs of Poland's society and its economy. However, they clearly indicate that actions will focus on the strongest areas, most notably large urban centres. Support for weaker regions will be offered not because they are poor but because they have the capacities which may be leveraged as the foundation for socio-economic growth in various spatial scales. This means that the position of all Polish regions in the whole of the European Union in 2020s is very likely to improve considerably, yet the regional disparities in Poland will aggravate, with the voivodships centred around major urban agglomerations being the key beneficiaries of the reformed EU cohesion policy.

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The influence of investment processes on the economic development of a region

Wpływ procesów inwestycyjnych na ekonomiczny rozwój regionu

Olena Ivashko

Lesya Ukrainka Eastern European National University

Summary

In the article influence of investment processes is reflected on economic development of Ukraine on the whole and the Volyn region in particular. The factors of investment climate of Ukraine and condition of his improvement are considered. Theoretical principles of functioning of economic free economic zones and the territories of priority development are given; purpose their introduction. Certainly basic positive and negative aspects of functioning of TPD of the Volyn region. Suggestions are grounded in relation to the improvement of investment climate in Ukraine; the ways of activation of investment activity are offered on territories of priority development taking into account the changes of market environment and normatively legal bases in Ukraine.

Streszczenie

W artykule przedstawiono wpływ procesów inwestycyjnych na ekonomiczny rozwój Ukrainy w szczególności zaś na rozwój regionu Wołyńskiego. Przedmiotem rozważań jest klimat inwestycyjny na Ukrainie i warunki w jakich może on ulec poprawie. Podano teoretyczne zasady funkcjonowania wolnych stref ekonomicznych i terytoriów priorytetowego rozwoju oraz zasadność ich utworzenia. Wskazano na główne dodatnie i negatywne aspekty funkcjonowania terytorium priorytetowego rozwoju Obwodu Wołyńskiego. Przedstawiono propozycje poprawy klimatu inwestycyjnego na Ukrainie; zaproponowano drogi aktywizacji działalności inwestycyjnej na terytoriach priorytetowego rozwoju z uwzględnieniem zmian środowiska rynkowego i normatywno-prawnej bazy.

Keywords: investments, investment potential, investment activity, investment activity, dedicated modes of investment activity, the territories of priority development, free economic zones

Słowa kluczowe: inwestycje, inwestycyjny potencjał, inwestycyjna działalność, inwestycyjna aktywność, specjalne reżimy inwestycyjnej działalności, terytorium priorytetowego rozwoju, wolna ekonomiczna strefa

Relevance of research

Well-being of any country depends on the functioning efficiency of enterprises, organizations, institutions, businesses, personal welfare of every household. The government gets its income by taxing businesses and individuals by both direct and indirect taxes. Investments should be regarded as a factor of economic growth, and therefore as an growth factor of obligatory payments receipt to the budget, strengthening of the country's financial system.

In Ukraine income amounts and depreciation deductions of enterprises, which must be the major sources of personal investment of companies, hasn't grown due to needs because of production decline, inefficient tax system (with her excessive pressure on income producers) and imperfect depreciation policy for several years.

Searching for ways out from the crisis in the country in whole and its region provides to reach the balancing of the most important national economic proportions: investment fund – accumulation fund – consumption fund. In other words, the executive authorities should focus their attention to the following three areas of work: attracting of investments, assisting growth of production and purpose reinvestment of earned costs.

1. Macroeconomic investment indexes of Ukraine

One should note that Ukraine is in a very difficult debt situation. By the end of 2013 Ukraine must not only repay over 3 million USD to IMF, but pay in June 2 million USD, borrowed to cover the budget deficit two years ago, to the Russian Vneshtorgbank. On the whole, only in June Ukraine must spend over 23 million USD to serve external debt. At the same time, foreign exchange reserves are insufficient to make such payments: their official size is about 31 million USD, but 12 million USD is a foreign currency, the rest are the securities and other assets. If in the next 12 months it is necessary to repay the debt of over than \$ 8 million USD, the situation with the foreign exchange reserves may become rather negative, because Ukrainian government laid in the budget of 2013 GDP growth for 3.9%, and international financial institutions and rating agencies predict that this year the Ukrainian economy will grow only for 1-2.5% comparatively with 5.2% of last year. As a result, debt repayments to the IMF by foreign exchange reserves can lead to another round of foreign exchange instability what will weaken the investment security of Ukraine.

Tab. 1. The macroeconomic prognosis for the Ukrainian economy

	2011	2012	2013
Real GDP growth,%, t / t	5,2	3,0	4,0
sector balance of government,% of GDP	-4,3	-3,5	-2,5
Consumer Inflation,% in the end of the year	4,6	9,0	8,0
Current accounts balance,% of GDP	-5,5	-4,9	-4,7
International reserves of NBU, mln. USD	31,8	26,5	26,0
Country sector debt,% of GDP	36,0	34,5	34,0
Foreign debt,% of GDP	76,6	69,0	65,0

Source: [6]

Also, the main factor affecting the investment processes is the investment climate. It was quite unfavourable in Ukraine, especially for foreign investors. Apparently “warming” in this sense has been observed since 2008 when Ukraine began to pursue a policy of accession to WTO and possible membership in EU.

2. Factors that worsened the investment climate in Ukraine

It should be noted that the main factors that worsened the investment climate in Ukraine, were:

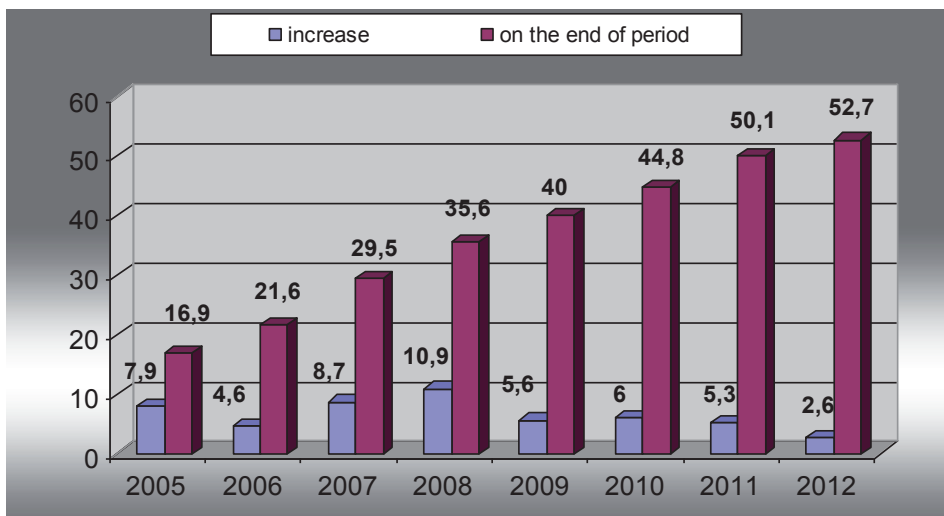
- unstable political situation and the lack of social consensus on increasing concerning the quality and depth of reforms;
- narrow internal market, low solvent demand of enterprises and the population;
- low profitability of most businesses in all spheres of economic activity what makes imports more profitable in comparison with to foreign investment and production expansion;
- high level and distorted structure of production costs; imperfect corporate and investment legislation, unsatisfactory protection of rights for shallow shareholders;
- excessive tax pressure on legitimate economy, at the same time “shadowing” almost half of national production;
- deformed currency, payment crisis, the dominance of low liquid surrogates;
- high level of corruption and organized crime;
- low business culture and reluctance of modern technology business;
- lack of market infrastructure and so on.

By the action of these factors one can explain the legal and illegal outflow of capital from Ukraine, whose volume for the last ten years, according to experts, makes more than 20 million USD. Every year 3-5 million USD is illegally derived from the country, first of all in the offshore and to Cyprus, which according to Ukrainian legislation is not an offshore zone.

It should be noted that the structure in the forms of bringing in of foreign capital to Ukraine for the period of 2002-2012 has considerably changed. Thus, in 2001-2004 contributions in the form of movable and immovable property held from 28 to 36%. In our days investing in cash deposits dominate in the structure of non-residents' equity.

Describing the current state of investment in Ukraine, it should be noted that according to the State Statistics Committee, 4,3 mln USD have been invested to the domestic economy by foreign investors for January – September 2012, what presents 91.07% to the corresponding period in 2011 [4].

Fig. 1. Dynamics of direct investments in Ukraine



Source [4]

The amount of supplied from the beginning of direct foreign investments (equity) to the economy of Ukraine for October 1, 2012 totalled 52,673.8 million USD, what is more than 5.2% of investment in the beginning of 2012, and counts 1157.0 USD per one person of population is USA.

3. The need and conditions for the implementation of special investment regimes in Ukraine

Consequently, to improve the financial situation high authorities systematically made attempts to state regulation of investment process in Ukraine. Rather effective mechanism at the regional level is to take advantage of free economic

zones (FEZ) and the territories of priority development (TPD). World practice confirms the positive influence of FEZ and TPD on the regional development. At the beginning of the XXI century in industrially developed countries operated from 800 to 1200 FEZ, covering nearly 27 million employees.

Creation in Ukraine first special (free) economic zones (SEZs) and then territories of priority development (TPD) was predefined by the necessity to attract foreign investments and promote them; to stimulate production development and enhance businesses cooperation with foreign investors to increase exports of goods and services; to increase currency earnings; to supply high quality products and services to the domestic market; to attract and introduce new technologies, market methods of management, market infrastructure development; to improve natural and human resources; to accelerate the local socio-economic development and Ukraine in general.

At the same time, already the first attempts to create them stumbled into opposition from various political parties, and the lack of an appropriate legal framework and financial mechanism of their operation created serious obstacles of their functioning. In Ukraine there were established eleven SEZ and in nine regions special regimes of investment activity were introduced.

According to the Law of Ukraine of 13.10.1992, № 2673-XII "About general principles of the formation and functioning of special (free) economic zones" special (free) economic zone is a part of the territory of Ukraine, where a special legal regime of economic activity and the order of application and actions of Ukrainian legislation are established and operate.

Interpreting the essence of the concept "priority development territory" one can distinguish three approaches to its definition: according to the current legislation, the socio-psychological level and from the point of view of the investor.

On the socio-psychological level, PDT is considered as the area that is introduced to solve the problems of depressed regions of the state, on which the decline of industrial infrastructure takes place and total unemployment dominates.

However, from the standpoint of legal and normative regulation priority development territory is treated as an area where there were adverse socio-economic and environmental conditions, poor condition of employment took place, and where a special regime of investment activity to create new jobs is introduced.

If one considers the understanding of the PDT from the perspective of an investor, the PDT is interpreted by him as the territory where favourable tax conditions are established to attract investment resources in state priority activities and sectors of the economy.

So common in the SEZ and PDT is a special investment regime which national legislator defines as the legal regime that provides for the introduction of the tax, customs and other incentives for businesses which implement investment projects approved by the appropriate authority of economic development.

4. The purpose of the introduction of special investment regimes in Ukraine

The purpose of the introduction of a special investment regime was investment in priority economic activities to solve social and economic problems of deprived areas whose economy suffered from substantial losses from structural changes, primarily in coal regions, cities with a high proportion of the military-industrial complexes, and also regions whose populations suffered mostly from technological and environmental disasters.

That is both SEZ and PDT in Ukraine were created with the same purpose – to solve the problems of employment, to enhance foreign trade, to attract foreign investment, to stimulate scientific and technological exchange, to achieve a new innovation quality of economy, to expand export base and development of import substitution.

However, with the existing positive results of SEZ and PDT functioning there is a number of problems that do not allow the use these methods with maximum efficiency to promote the economic development of Ukraine. So if seven years ago in Ukraine problems of expediency of SEZ and PDT creation were acutely discussed, today we are dealing with another process – a temporary suspension of SEZ and PDT functioning in Ukraine and unpromising forecasts and ideas for their elimination.

It should be noted that a moratorium on new and expanding of existing special (free) economic zones and special investment regimes in the new territories was introduced by the Law of Ukraine “About the State Budget of Ukraine for 2004-2009”. The moratorium for consideration and approval of new investment projects in the SEZ and on PDT is also establish.

A common feature of the most Ukrainian PDT was the demand of vast investments for tax benefits (in many cases – from 250 thousand to one million dollars and more). Maximum limit of minimum investment suggests that investment projects which were realized, were designed primarily for big business. Having made the focus on large investors, lawmakers passed over 99% of home businessmen.

5. Negatives functioning of SEZ and TPD in Ukraine

According to the told above, we select the following major warning related to the economic feasibility of introducing of special investment regimes in Ukraine:

Firstly, the introduction of a large number of special investment regimes creates opportunities for duty-free import of goods;

Secondly, providing benefits to certain enterprises rotates by the additional tax burden for others;

Thirdly, subjects of PDT do not pay taxes, what in the end affects the fiscal adequacy of the budget.

The low level of investment attractiveness and therefore ineffective activity of the portion of a predetermined PDT is predefined by imperfect government policies, including instability and volatility of legal regulation that can lead to the development of corruption and abuse of privileges. However, practical experience suggests that for potential investors benefits are not the main things, but state guarantees of total legislative stability. If you compare the experience of neighbouring states of Poland, these territorial entities on its territory are established for a period of 20 years (in the Ukraine a term is ranging from 15 to 60 years). Polish government plans to liquidate special investment regimes in 2016 after the existing period of the SEZ and PDT. This example indicates the presence of government guarantees by the government of the neighbouring state, and allows to business-SEZ and TPD to operate successfully, to receive benefits to pay certain taxes till the end of the agreement with the state. But in our country such guarantees are absent, because the activities of SEZ and PDT stopped in 5 years from the beginning of their activities.

Ukrainian PDT were also unattractive to investors because of a lack of effective management at the stage of their formation and their poor planning, namely: unsuccessful choice place for PDT (territory with underdeveloped infrastructure, lack of natural and human resources, not large enough market) and improperly determined size of the zone that requires considerable initial investment for creation of infrastructure.

At the same time, along with the existing negative aspects in the creation and function of PDT, there was a number of advantages. And namely due to PDT a large proportion of foreign capital has been involved to the economy of the country that has led to the filling of budget by substantial amounts of tax resources and as a result, social and economic state of the state in general and the region in particular increased.

Introducing PDT in Ukraine provided for the creation of financial and investment framework for raising the priority sectors of the economy, as well as for employment and income growth of population. Namely that was supposed to be the aim of PDT in the second stage of their development (2007 and 2010). Elimination of such zones is appropriate only if there were no significant results on the first phase of their functioning. Experience of other countries shows that PDT with appropriate government influence is a catalyst for the formation of well-functioning open economy.

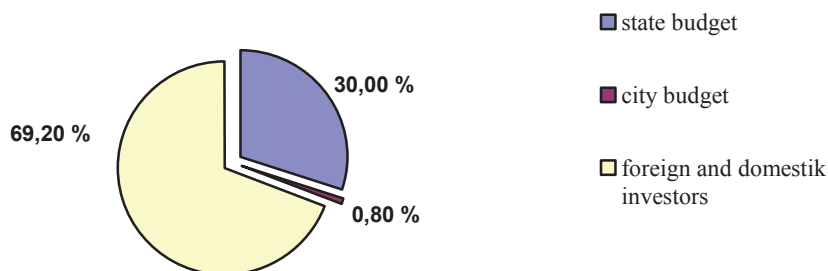
6. Results of PDT functioning in Volyn region

An example of a special investment regime was Volyn region, where on January 1, 2000 a special investment regime for the implementation concerning investment projects in priority activities for 30 years has been entered. Special investment regime was introduced in order to attract investments in the priority sectors of production and employment of workers who freed because of the closing, restructuring and conversion of mining and other enterprises in the Volyn region, for the introduction of new technologies; the development of foreign economic relations; increasing of production of quality goods and services; creating a modern industrial, transport and market infrastructure; efficient use of natural resources.

For the period of PDT operation in the Volyn region there were 19 investment projects with a total value of 34521.6 thousand of dollars (19432 thousand of dollars – foreign capital). The largest of these were:

- TOJ “Alyuhlas” – “Creating of a modern window manufacturing in Novovolynsk”, estimated cost is 413 thousand dollars;
- LLC “OKA” – “Creating of enterprise for the production of gloves”, estimated cost is 602 thousand dollars;
- DP “Novovolynsky tseh OJSC Luck-Fuds” – “The production of soft margarine”, estimated cost is 4352.7 thousand dollars;
- TOJ “Novoplyt” – “The production of wooden panels”, estimated cost is 2800 thousand dollars;
- SE HB plant JSC “Lutsk-Fuds” – “The production of white refined deodorized oil”, estimated cost is 3931 thousand dollars;
- TOJ “Metal-Union” – “Production of metal products”, estimated cost is 250 thousand dollars.

Total volume of investments for the period of functioning of PDT in the Volyn region was 36.2 million dollars. It was created 3000 job places, what, in their turn, helped to keep the infrastructure construction, transportation and other industries. In 2006, on the PDT in the Volyn region, namely, in Novovolynsk it was received 373 million hryvnias of investments. 109.7 million of them were from the state budget for the creation of new jobs, 3.3 million – from the city budget, and 258 million – involved (including enterprises of PDT 134 million.) (Fig. 1).

Fig. 2. Structure of the sources of investment resources on the PDT in the Volyn region on 01.01.2007

It is made by the author from data of Report about the basic indexes of activity of PDT in the Volyn area on 01.01.2007

So, a leading place among the sources of investment resources belonged to the attracted money, and also to own money of subjects of management. At the same time already in 2008 848,2 thousands of dollars of foreign investments were attracted in the PDT, to Novovolynsk, where PDT is placed, it was attracted 33 thousands of dollars, thus the foreign investors did not make investments in connection with abolition of taxation privileges.

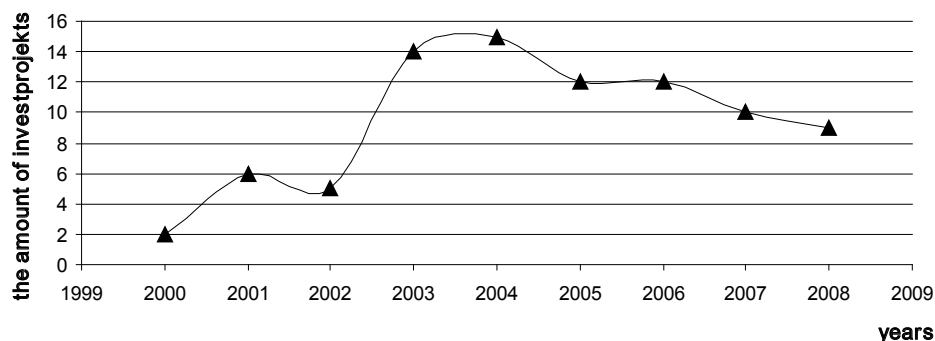
Tab. 2. A dynamics of investment resources is on TPR in the Volyn region

Years	Attracted investments for year (th. dol. USA)		Attracted investments from the beginning of TPD functioning (th. dol. USA)	
	all	from foreign them	all	from foreign them
2001	1135,9	271,4	2088,7	374,5
2002	3575,12	2084,1	4561,82	2458,8
2003	7835,0	7516,9	12546,4	9913,3
2004	13618,9	-	26267,4	-
2005	10052,2	4093,2	32300	-
2006	33000	1406,4	65300	11319,7
2007	4528	-	192535,2	73332,4
2008	6162,7	-	191902,9	72803,4

It is made by the author from data of Report about the basic indexes of activity of PDT in the Volyn area on 01.01.2002–01.01.2009

The data of table 2 testify that the volumes of foreign investments in 2006 were growing. It is traced best of all in 2003, where the part of the foreign investments in a lump sum was 95,9 %.

Fig. 3. A dynamics of investment projects amount on the TPR of the Volyn region in 2000-2008

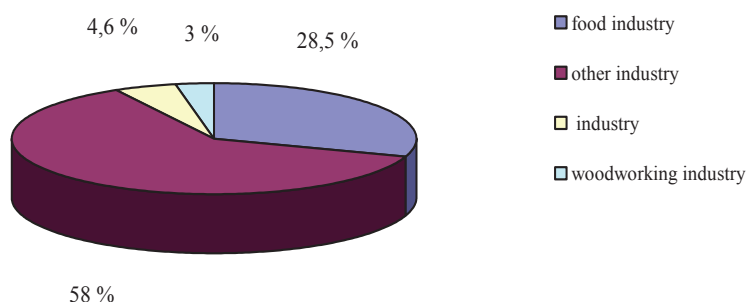


It is made by the author from data of Report about the basic indexes of activity of PDT in the Volyn area on 01.01.2002–01.01.2009

In connection with abolition of privileges on PDT enterprises began to roll up their activity and on 01.01.2009 only seven enterprises-subjects of PDT functioned on the PDT of the Volyn region.

For the period of functioning of PDT in the Volyn region the main amount of investments is attracted in such industries, as food industry – 4,3 million of dollars (13,4 %), other production is not attributed to other groups (production of furniture) – 23,5 million of dollars (72,6 %), paper industry – 786 thousands of dollars (2,4 %), woodworking industry – 1,07 million of dollars (3,3 %), a production of rubber and plastic wares – 631 thousand of dollars (2 %), an engineering – 1,43 million of dollars (4,4 %).

Fig. 4. Structure of investments on PDT in the Volyn region due to the types of activity in 2008



It is made by the author from data of Report about the work of executive management of PDT in the Volyn region in 2008

In the process of realization of investment projects on the PDT in the Volyn region it was mastered the investments of 7,9 million of dollars. So, the mastered volume of the real investments on the PDT in the Volyn region in 2001 was 11110,6 thousands UAH, in 2002 – 24322,3 thousands UAH, in 2003 – 65673,3 thousands of UAH, in 2004 – 137732,1 thousands of UAH. Investments were laid in the equipment, raw material, money and other objects (table. 4).

Tab. 4. Dynamics and structure of the mastered investments on the PDT in the Volyn region in 2001-2004

direction of invest-ments	2001		2002		2003		2004	
	th. hrn.	%	th. hrn..	%	th. hrn..	%	th. hrn..	%
Equipment	7423,8	66,8	8925,5	36,7	13067,6	20,0	58847,3	42,7
raw material	1441,7	12,9	214,9	0,9	261,5	0,5	31386,2	22,8
money	2155,9	19,4	13600,7	56,0	50831,0	77,1	41123,6	29,8
Other	89,2	0,9	1581,2	6,4	1513,2	2,4	6375,0	4,7
All	11110,6	100	24322,3	100	65673,3	100	137732,1	100

It is made by the author from data of Report about the work of executive management of PDT in the Volyn region in 2001-2004

From the data of table 4 it is possible to judge that the subjects of management mobilized more their resources in the equipment, money and other objects, and mastered less than investments in raw material.

That is realizing investment project, an investor wanted to be confident, that inlaid money will be returned as quick as possible. And that's why money was the most liquid asset for an investor.

Tab. 5. Dynamics of the mastered investments on the PDT in the Volyn region in 2005-2006

Index	To the region		In SEZ and TPD		% SEZ / TPD to region 2005	% SEZ / TPD to region 2006.
	2005	2006	2005	2006		
Investments to the main capital, mln. hrn.	1185,6	1071,8	52,0	7,2	4,4 %	0,7 %

Thus, in 2005 the bulk of investment funds folded 77.3% of the total mastered investments, in equipment – 20%, in raw materials – 0.4%, in other places – 2.3%.

The volume of sales by the agents of PDT steadily increased. Thus, in 2006 comparably with 2005, the growth was 20.1%, while the part of sales by the agents of PDT products to all products sold in the region in 2006 was 1.9% comparably to 4.5% in 2005.

There has been a steady growth of industrial output in the PDT, particularly in 2006 comparably to 2005 production volume increased for 60.4 million UAH, but its share in total regional volume decreased to 1.1%.

By the state on 01.01.2007: products are sold for 255.2 million UAH (from these money in 2006 – 109 million UAH). Attracted investments are 24 million of dollars. Totally foreign investments are 36.6%, reinvestment – 61.6 %.

Thus, an important prerequisite for economic development is a structural reallocation of investment resources by industry and searching for additional reserves of investment increase projects on the PDT in the Volyn region.

Tab. 6. Dynamics of FDI in Volyn and PDT of Novovolynsk in 2000-2008

	Foreign direct investment, million USD								
	2000	2001	2002	2003	2004	2005	2006	2007	2008
In Volyn generally	38,5	49	48,9	53,6	86,3	97,4	113,4	272,4	397
On the PDT of Novovolynsk	0,953	1,136	3,575	7,835	11,136	12,571	1,406	0,852	0,848

It is compiled by the author according to the Statistical Bulletin of the Central Statistical Office in Volyn Region, in 2000-2008 the

According to Table 6 trend to increasing of foreign direct investment in the Volyn region as a whole and in the PDT of Novovolynsk till 2005 inclusive was traced. However, in 2006 investment growth began to decline because of the suspension of PDT.

Socio-economic effect of establishment and operation of PDT is to create new and maintaining of existing jobs, raising of living standards, the amount of generated on the PDT production and its exports, reducing of unemployment. From the creation of PDT in the Volyn region it was expected to create and save about 20 thousand jobs (Table 7).

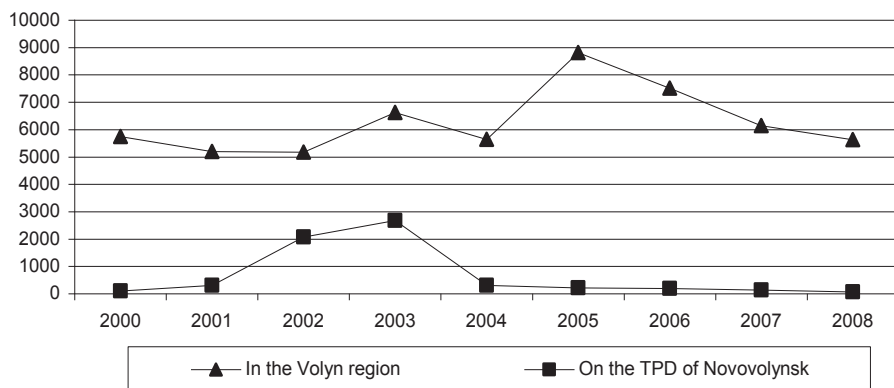
Tab. 7. Dynamics of the number of jobs created in the Volyn region in 2000-2008

	Number of jobs created, people.								
	2000	2001	2002	2003	2004	2005	2006	2007	2008
In Volyn region	5750	5196	5179	6625	5649	8819	7510	6147	5638
In Novovolynsk	252	237	763	1307	869	1952	2318	2228	1996
On the PDT of Novovolynsk	102	308	2080	2685	304	222	191	133	71

It is compiled by the author according to the Statistical Bulletin of the Central Statistical Office in Volyn Oblast, in 2000-2008

In connection with the cancellation of tax incentives in 2006 comparably with 2005 was decreased the number of accrued jobs (from 222 in 2005 to 191 in 2006), but their share in the region remained the same – 1%.

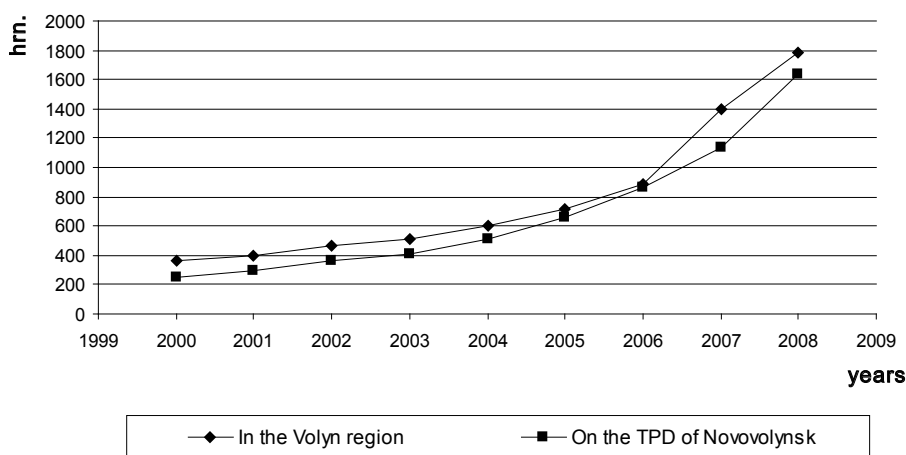
Fig. 5. Dynamics of the number of jobs created in the Volyn Region and PDT of Novovolynsk in 2000-2008



It is compiled by the author according to the Statistical Bulletin of the Central Statistical Office in Volyn Region, in 2000-2008

Average monthly salary in enterprises-participants of PDT in 2005 was significantly increased and amounted 664.7 UAH, in Novovolynsk – 749.8 UAH, in the region – 718 UAH.

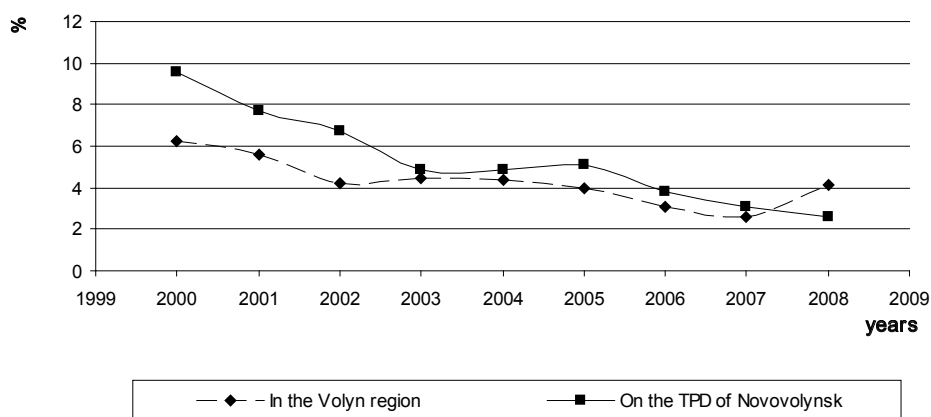
Fig. 6. Dynamics of average monthly salary in the Volyn region and on the TPD of Novovolynsk in 2000-2008



It is compiled by the author according to the Statistical Bulletin of the Central Statistical Office in Volyn Region, in 2000-2008

The significant positive impact of results of PDT work on the social life of population and general welfare of the city was traced, namely the reduction of unemployment diminished. By the state on 01.01.2000 it was 9.6%, by the state on 01.01.2001 – 7.7%, By the state on 01.01.2002 – 6.7%, by the state on 01.01.2003 – 4.5%, by the state on 01.01.2004 – 4%, by the state on 01.01.2005 – 2.8%, by the state on 01.01.2006 – 2.5%.

Fig. 7. Trends in unemployment in the Volyn Region and on the TPD of Novovolynsk in 2000-2008



It is compiled by the author according to the Statistical Bulletin of the Central Statistical Office in Volyn Region, in 2000-2008

According to the statistics, per one citizen there were investments accounted 271.2 of dollars by the state on 01.01.2006, in the region – 107.6 of dollars. By the state on 01.01.2005 this figure was accordingly 210 and 103 of dollars. 96% of foreign investments were from Poland.

Thus, held by us complex analysis of socio-economic development and investment activity in the PDT in the Volyn region made it possible to detect both positive and negative effects of their functioning. The positive effects of the PDT one can identify, firstly, a gradual increase in budget revenues from investment projects. The main tax paid by enterprises, is a value added tax.

Secondly, investment amount per one inhabitant of PDT increased.

Thirdly, industrial structure of investments differentiated. The bulk of the investments was involved in such industries as food industry, other manufacturing not returned to other groups, chemical industry, wood industry.

Fourthly, the quality of reclaimed real investment in the PDT was improved.

Fifthly, one could watch a significant positive influence of work in PDT on the social life of population and general welfare of the city. Namely, the unemployment rate dropped.

However, we established low cost effectiveness of projects which were implemented in the conditions of the special regime of investment. The volume of benefits grew faster than government revenues in the result of functioning of free zones. This can be explained by an unjustified amount of benefits as well as by significant amounts of benefits from import on raw materials imported by subjects of SEZ and PDT for their own production needs.

As for the imperfect functioning of benefits and problems of investment mainly in the cities with a developed infrastructure one should note that national legislation did not allow to use the differentiated approach to the provision of benefits arising from investment rating of territories. In this regard, there excluded any possibility of aligning of the investment flow by introducing of favourable factors for progressive districts and cities, what predetermined uneven distribution of investments in different areas. The problem is caused by both the specifics of these regions and inflexibility of regulations which provide investments.

7. Prospects of operation of special investment regimes in Ukraine

Therefore, the decision of the question of further operation of special investment regimes in Ukraine requires the implementation of such measures:

Firstly, it is necessary to adopt a set of measures to determine the functioning results of the SEZ and PDT, their potential, untapped reserves and the impact on economic or social development of the country or a particular region. Thus methodological incorrectness of existing evaluation practise of their functioning exceptionally in terms of the balance of received benefits and revenues to the budget is important. One of the most indicative criteria for evaluation the results of SEZ and PDT activity is the ratio of fiscal and socio-economic efficiency.

It should be noted that the tax stimulation in SEZ and PDT is important to modernize and reduce the energy intensity of the whole economy of the country. However, it is necessary not to encourage the entire region or specific area, but to find several sectors whose development is able to affect significantly economic growth in a region. Thus, investment attractive in Ukraine have become such economic activities as food industry and agricultural products processing, wholesale and intermediary in trade, financial activity, engineering, chemical and petrochemical industry, metallurgy and metal processing, coke, petroleum products and nuclear fuel production, science, technology and innovation activity, tourism (hotel infrastructure development) [3.109].

In order to create favourable conditions for investment and growth in investment in the economy of Ukraine, the tax code included chapters and articles of the use of special tax regimes in the SEZ and PDT. However, these rules have caused ambiguous perception both by taxpayers and certain central government because at present special laws of Ukraine about the establishment and functioning of SEZ and PDT hasn't yet inured. Because of the absence of current legislative framework for the use of special tax regimes in the SEZ and PDT a clear financial mechanism for the practical application and implementation of investment regimes is not formed and the range of subjects who will use it, isn't undefined. This may cause the use by certain entities engaged in investment activities in the indicated areas, of various schemes of tax evasion and minimize their tax liabilities. Therefore, to solve these problems it is provided for by the final provisions of the Tax Code that subsections 4 and 5 of Chapter XVII "Special tax regimes" will come into force on the date of enactment of special laws of Ukraine about the SEZ and PDT establishment and functioning and promotion of regional development.

Secondly, to encourage those small areas which will be ready to join within administrative-territorial reform, it would be appropriate to create or restore there EEZ (or PDT). As a pilot project one could consider a question of Volyn and Rivne regions association in 2013, each of which has more than 1 million of inhabitants. To remove the controversy about the centre of the new area regional administration could be focused in Lutsk and regional council – in Rivne (or vice versa). [4]

From the stated above it follows that the problematic of special investment regimes functioning doesn't lie in the plane of their existence as such, but often in improper management and inefficient control over them, wrong definition of priorities and strategic orientations of individual regions; and generally in abuse by national interests in favour of the individual structures. Thus, the activation question of investment activity on them, their strategic development shift to the plane of the national investment security.

8. Directions of improvement of the investment climate in Ukraine

Thus, analyzing the reasons of the negative investment climate in Ukraine one can conclude that it is necessary for its improvement:

1. To ensure investment security by making production savings and investments at the level that provides the required rates of expanded reproduction, restructuring and technological upgrading of the economy.
2. Investment security of Ukraine must also include maintaining of the optimal ratio of national and foreign investments.
3. To provide adequate funding for scientific and technological sphere.

4. To improve the legal framework for regulation of the financial sector including the improvement of investor protection.
5. To conduct an active policy of state protection of national capital positions and to stimulate not only the quantitative growth of foreign direct investments, but also their qualitative parameters.

Conclusions

So, today, of course, Ukraine requires certain transformations to improve internal and external investment processes. The successful combination of national and regional investment policy will provide the necessary conditions for enabling the functioning of the investment market in Ukraine. Existing improvements and trends in the investment market must be maintained and developed, and it is impossible to do without certain right decisions. Any management decisions should be justified on the basis of scientific approaches, systems, forecasting, modelling of certain conditions and situations. Therefore, namely the development and use of modern models of the investment market in Ukraine will provide the appropriate level of sustainability of regional investment processes, and this, in its turn, will lead to improvement of the investment climate in the country and its regions, revitalize the national investment activity, strengthen Ukraine's position in the world rankings of investment – attractive countries.

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International Customs Cooperation

Międzynarodowa współpraca celna

Yevgen Garmash, Yurii Petrunia

Academy of Customs Service of Ukraine

Summary

This article deals with the issue of International Cooperation on Customs Affairs. It considers the main areas of customs cooperation and focuses on collaboration points between Ukraine and Poland. This paper also examines the development prospects of customs relations between Ukraine and Poland and other countries of Central and Eastern European region.

The article contains analysis of the efficiency of the main directions in customs cooperation. Based on the analysis attempts were made to develop theoretical and practical suggestions aimed to improve and activate customs services in certain directions in Ukraine and other countries of Central and Eastern Europe.

Streszczenie

Treścią tego artykułu jest międzynarodowa współpraca celna. Głównym obszarem opracowania jest współpraca celna między Ukrainą i Polską. Badamy także perspektywy rozwoju w/w relacji pomiędzy Ukrainą, Polską i innymi państwami Europy Środkowo-Wschodniej. W artykule tym zawarte są analizy efektywności głównych kierunków współdziałania w zakresie działalności celnej. W oparciu te analizy podjęto również próbę opracowania teoretycznych i praktycznych wskazówek jak doskonalić i uaktywnić w pewnych kierunkach politykę celną na Ukrainie i innych państwach Centralnej i Wschodniej Europy.

Keywords: international cooperation, customs administrations, general customs control, information exchange

Słowa kluczowe: międzynarodowa współpraca, administracja celna, ogólna kontrola celna, wymiana informacji

International Customs Cooperation

Actuality. Ukraine's foreign policy is focused on ensuring its national interests and security by maintaining peaceful and mutually beneficial cooperation with the international community on the basis of universally recognized principles and norms of international law. One of the areas of Ukraine's international cooperation is international customs cooperation or, as specified in the national customs legislation, international cooperation in the field of customs. Among all the countries of Central Eastern Europe, relations between Ukraine and Poland are marked by diversity, richness of events, and problematic character of formation. In terms of capacity in bilateral contacts Ukrainian-Polish relations are defined as strategic. In addition, the development of relations with the Republic of Poland takes the main place in foreign affairs policy and foreign economic activity of Ukraine regarding to Central European countries. This attitude towards the western neighbor is not only for the reason of the centuries-old tradition of Ukrainian-Polish relations, territorial proximity, common demographic roots and close cultural ties, but, above all, by common political and strategic interests, active cooperation in all spheres of life between the two countries.

The system of Ukrainian-Polish cooperation in recent years has undergone significant changes connected with joining of Poland the EU. On the one hand, these changes are caused by transformation of external economic policy format of our western neighbor due to adapting Polish law to the EU requirements, as well as coordination with the foreign policy of the EU Common Strategy. At the same time, the full integration of Poland into the economic and political space of the EU put on the agenda the problem of identifying the role and place of the country as a part of that organization. One of the priorities of Poland's specialization in this context may be its geopolitical mission of a "bridge" of Western Europe in the post-Soviet space. This means that for Poland, as for a subject of the EU, one of the most important issues remains maintaining good partnership relations with its eastern neighbors, especially Ukraine.

The aim of the work is to identify the main areas of international cooperation on customs affairs and perspectives of relations between Ukraine and Poland and other countries of Central and Eastern European region.

Research on the topic. Analysis of the literature allowed us to determine that the issue of international customs cooperation was investigated by such scholars and experts as: K. Borysov, K. Bakaii, I. Berezhniuk, X. Volfgang, Ye. Gvardzynska, D. Dainen, Ye. Dodin, L. Entin, O. Yershov, S. Kivalov, Zh.-K. Kolli, B. Kormych, O. Pavlenko, S. Perepiolkin, D. Prymachenko, V. Prokopenko, K. Sandrovskyi, V. Chentsov, V. Chyzhovich, A. Chumachenko and others.

Basic content. The importance of the development of Ukrainian-Polish cooperation in customs affairs in the context of intensified processes of economic

integration between the two countries is caused primarily by strategic imperatives of the EU regional policy, which is currently developed in the aspect of European integration. As regional component plays a more active role in the EU politics nowadays and strategic importance of regional factors is caused by circumstances, connected with the modern process of European integration, in particular with the policy of the EU enlargement to the East.

The formation and development of Ukraine's international customs cooperation took place simultaneously with the formation and development of its statehood and directly depended on the appearance of its own customs system.

Today Ukraine has an expanded legal and regulatory framework that entitles the customs authorities of Ukraine to establish and maintain international contacts in the field of customs with the customs authorities of foreign countries as well as with international organizations, whose regulations provide the possibility of cooperation on customs affairs.

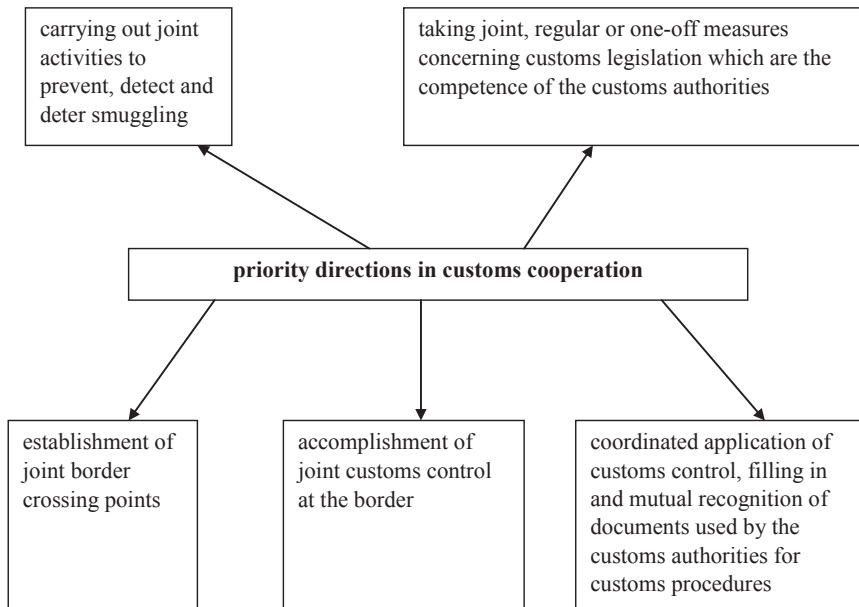
Considering the legal principles of international cooperation on customs affairs, special attention should be paid to the paragraphs in the Customs Code of Ukraine. Ukraine's customs system complies with generally accepted in international practice classifications and coding of goods, customs regimes, customs statistics, and other generally accepted international rules and customs relations standards and ensures fulfilling international treaties obligations of Ukraine on customs affairs concluded in the manner prescribed by law. Ukraine's international customs cooperation with the international community is based on the generally recognized principles and norms of international law.

Development of international customs cooperation in Ukraine was declared as the main task for customs bodies of Ukraine.

The priority directions in customs cooperation can be represented schematically as following:

- carrying out joint activities to prevent, detect and deter smuggling;
- establishment of joint border crossing points;
- accomplishment of joint customs control at the border;
- coordinated application of customs control, filling in and mutual recognition of documents used by the customs authorities for customs procedures;
- taking joint, regular or one-off measures concerning customs legislation which are the competence of the customs authorities.

A schematic illustration of the above-mentioned areas of international cooperation is provided in Figure 1.

Fig. 1. Directions of international customs cooperation

The Polish Republic was and remains among the main strategic partners of Ukraine in foreign relations as well as in the field of customs. This fact is confirmed by the continuing increase in trade between the two countries, in the last two years the trade turnover between Poland and Ukraine increased by over 30 percent and is 6 billion dollar. The structure of Ukrainian exports and Polish imports suggests that these products contribute to the development of domestic production in both countries. This is undoubtedly the result of effective cooperation between customs services of Ukraine and Poland and the implementation of the agreements and conditions of the concluded international treaties. So, let's make a more detailed review of cooperation between Ukraine and Poland.

The basis for the development of cooperation in customs affairs between Ukraine and Poland was the agreement between the Governments of the two countries on cooperation and mutual assistance in customs affairs, signed on December 18, 1995. As following the customs legislation is one of the most important principles of international trade and mutual assistance of customs bodies improves effectiveness in fighting against acts contrary to customs legislation, taking into consideration the recommendations of the Customs Cooperation Council signed on December 5, 1953 about mutual administrative assistance, on June 8, 1971 the governments of Poland and Ukraine agreed on such main ways and directions of cooperation between the customs authorities:

- exchange of customs officials to familiarize them with technical control means that are used in practice and have mutual interest;
- training and assistance in the improvement of professional skills of customs officers;
- exchange of experts on customs issues;
- exchange of professional, scientific and technical information on customs matters.

Also it is necessary to mention other most important institutions of the Ukrainian-Polish cooperation. Support and development of the current level of partnership between Ukraine and Poland highly depends on maintaining the current political contacts, strengthening of social dialogue that concerns national consortium, and on successful reform policy in Ukraine. There is a number of already existing regular institutions of Ukrainian-Polish cooperation helping to achieve the above mentioned objectives:

1. Advisory Committee of Presidents of Ukraine and Poland. The first sitting of the Committee wastook place on 27 May 1993. The Committee deals with problems of regional security, strategy for economic cooperation, problems of national minorities, issues of regional cooperation and the creation of new routes for transporting energy. The Committee provides an opportunity to carry out current bilateral consultations on the most urgent issues for both sides.
2. Ukrainian-Polish joint commission on trade and economic cooperation. The Commission was established in January 1993. It is a main, in a broad sense, institutional form of economic cooperation between Ukraine and Poland. It is represented by all concerned ministries and departments of both countries.
3. Ukrainian-Polish economic forum. It was founded in 1998 in Rzeszow. This is a formula of annual meetings, providing Ukrainian and Polish businessmen with possibility to exchange reform experiences and to presentate cooperation offers, and discuss issues related to the common search for sponsors for certain projects. Representatives of Ukrainian and Polish governments, politicians, parliamentarians and businessmen are invited to participate in the meetings of the Forum.
4. Ukrainian-Polish and Polish-Ukrainian parliamentary groups.
5. Ukrainian-Polish / Polish-Ukrainian Forum was established in 1992, its activity was continued in 1999. It brings together prominent representatives of science and culture of our countries. The idea of Ukrainian-Polish university, among others, received active support in the Forum;
6. Regular Ukrainian-Polish Conference on European Integration. Its organizational meeting was held in March 1999. Work of the Conference is governed by Deputy Foreign Minister of Ukraine and Poland. It is represented by all concerned ministries and departments of both countries. Patronage over the

conference is carried out by Prime Ministers of Ukraine and Poland. Four meetings of the Conference have been already held, which is a form of transmission to Ukrainian partners of Polish integration experience, knowledge about the process of joining the EU, it also makes possible to carry out extensive analysis of the Ukrainian-Polish relations against the background of approaching both countries to the European Union.

7. Polish-American-Ukrainian Cooperation Initiative. Cooperation of governments of Poland, the USA and Ukraine within PAUCI (the idea of its establishment was born in Kiev in 1998) covers three areas: macro-economic reforms, development of small and medium enterprises, and the formation of local government. PAUCI task is to support economic reforms in Ukraine by transferring the Polish experience. Especially important is the practice of cooperation of non-governmental organizations in three countries. More than 30 grants have been assigned Within PAUCI.
8. Polish Institute in Kyiv. This institutt, which has been exhistig in the capital of Ukraine for two years, has become one of the important cultural centers.

The most important and successful projects of cooperation in customs affairs are the following:

1. Information exchange, i.e. Ukrainian or Polish side receives information about the vehicle and its cargo before it actually crosses the border. It gives both sides the opportunity to effectively confront the customs law breaking.
2. Early Warning System, which enables to prevent the formation of queues at the border. This is a new form of information exchange at the level of heads of posts, customs chiefs and Heads of customs services. (Using this system allows you to inform the customs authorities in case of the queue if the number of declared vehicles falls below the optimal quantity specified for the checkpoint, and the waiting time in the queue is: for passenger traffic – more than 2 hours, for cargo traffic – more than 6 hours).
3. Starting a pilot project on controlling empty vehicles using «Fast Way» in international checkpoint for road transport “Krakivets-Korchova” in the direction of exit from Ukraine / entry to Poland, which will significantly increase throughput.
4. Joint customs control on Ukrainian-Polish border, which is at the checkpoints “Smilnytsia-Krostsensko” and “Ustylug-Zosin” and other.

Listed above activities and other arrangements on cooperation of customs administrations between Ukraine and Poland contribute to specific positive changes on Ukrainian-Polish border.

Conclusions. For Ukraine and Poland globalization is an essential precondition for the implementation their potential in the economy of the XXI century. It provides sufficient dynamics of international markets and creates good precondi-

tions for the full integration of our countries into the world economy. At the same time determination of its place in the international division of labor, search for integration vectors and effective forms of cooperation in the field of customs affairs – are the tasks that our countries should solve on the basis of the formation of an appropriate strategy for development cooperation directed in the distant future. Attention should be paid to the modern development of the Ukrainian-Polish border cooperation that takes place simultaneously on several levels.

On the one hand, it is strengthening of foreign economic relations of enterprises and promoting cross-border business, on the other hand, it is increasing interaction of public organizations and social movements on both sides of the border, formation of joint associations or European regions, thirdly, establishing coordinated activities of state authorities, customs administrations and local authorities. One can not ignore such aspect of cross-border cooperation as cooperation of scientific and educational establishments, in particular the formation of innovative models of development of border areas based on sharing experiences and common use of industrial potential and infrastructure.

Problems of cross-border cooperation is becoming more urgent in theoretical aspect (because fundamental researches in the field of cross-border studies are practically not conducted), as well as in terms of practical results for Ukraine, because after the last wave of the EU enlargement cross-border cooperation may become one of the most effective instruments of European integration for our country.

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B.

Social capital in the development of municipalities and enterprises

- Kapitał społeczny w rozwoju miast i przedsiębiorstw

Influence of Social Capital on Development: Results from five Polish Municipalities

Wpływ kapitału społecznego na rozwój: Rezultaty badań z pięciu polskich miast

Geir C. Tufte

Department of Economics, Languages and Social Sciences, Østfold University College, Norway

Summary

Aims and methods. This article aims at describing the presence of social capital, as measured by citizen participation in some public affairs and of citizens' trust to certain significant groups in society, and to comment upon the influence of such capital on development. Theoretically, social capital is considered to be a prominent, though often neglected, feature for municipal development.

Data from a survey in five Polish municipalities. The survey was conducted within the framework of the COMPETE project (Civilization Competences and Sustainable Development in Polish Regions), have been studied and additional data are collected from ESS (the European Social Study).

Streszczenie

Cele i metody. Celem tego artykułu jest charakterystyka kapitału społecznego, mierzonego jako: a/uczestnictwo obywateli w pewnych działaniach publicznych oraz b/ zaufanie obywateli do pewnych ważnych grup społeczeństwa, a także opis wpływu tego kapitału na rozwój.

W teorii kapitał społeczny uważa się za istotny czynnik rozwoju miast. Często jednak jest to kwestionowane.

Informacje użyte w tym artykule pochodzą z opracowania dotyczących pięciu polskich miejscowości. Badanie zostało przeprowadzone w obrębie projektu COMPETE (Cywilizacyjne Kompetencje i Trwały Rozwój Polskich Regionów-Civilization Competences and Sustainable Development in Polish Regions). Dodatkowe informacje pochodzą z ESS (the European Social Study).

Keywords: Civil society, development, citizen participation, trust, municipality

Słowa kluczowe: społeczeństwo obywatelskie, rozwój, partycypacja mieszkańców, zaufanie, miejscowość

Introduction

This article aims at describing how the concept “social capital” is present by citizens in five Polish municipalities, and to reflect about the influence of such capital on development. The key meaning of social capital in this article is connected to two aspects of the concept. Citizen participation in public affairs is one aspect and citizen’s trust to significant groups in society is the other. Academic literatures over the last two-three decades are filled with references and discussions about social capital. David Halpern for example, in his book *The Hidden Wealth of Nations* (2010), has recently commented on the concept in general by claiming that there is a range of evidence today that communities with low levels of social capital are more likely to exhibit high proportions of deficiencies (such as high crime rates, bad public health, low education), and what is most relevant in the frame of this paper; better economic growth (Halpern, 2010). A statement from the World Bank (World Bank, no date) demonstrates that also that institution values the role of social capital as it appears in the following plain statement: “Social capital either facilitates or hinders economic reforms”. The same source also credits Francis Fukuyama for the following citation: “It is clear that both the need for an industrial policy and the ability to implement one effectively are dependent on cultural factors like social capital.” It is also worthwhile to cite Robert D. Putnam, where he connects social capital with social networks “civic virtue”. Putnam declares that

“... social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them. In that sense social capital is closely related to what some have called “civic virtue.” The difference is that “social capital” calls attention to the fact that civic virtue is most powerful when embedded in a sense network of reciprocal social relations. A society of many virtuous but isolated individuals is not necessarily rich in social capital’ (Putnam 2001, p.19).

The next sections deal with references to academics that are considered to express typical attitudes about the two aspects of social capital, which we focus on in this article. We start with references connected to citizen participation in public affairs.

Why is participation of citizens in public affairs important? The simple answer is that such participation is regarded as an essential prerequisite for community development, as two winners of the Nobel prize in economics, Joseph Stiglitz and Amartya Sen have declared in different ways although with similar content (Stiglitz 2001 and Sen 1998). Contrary to what “a naïve reading of Adam Smith” as Stiglitz puts it (Stiglitz, 2010, p. 281), the pursuit of self-interest does not lead to the well-being of society. That’s why citizen participation in public affairs is essential for a worthy development of society.

The Polish scholar Piotr Sztompka, has dealt a lot with the link between trust and citizen participation in voluntary organizations. On one occasion he simply states that “trust emerges from rich associational life” (1999, p. 15).

Conventional wisdom says that trust in politicians in general strengthens the political stability of a democratic political system. This view also has a long standing in political science, as stated already in 1986 in an article in *Scandinavian Political Studies* by the Finnish scholar Matti Wiberg (1986), Wiberg starts his article by challenging the conventional and undesirable view about the relation between citizen's trust in politicians and a stable democratic system, Wiberg refers to arguments that distrust of politicians in general may just be evidence of healthy skepticism, and that “total faith is blind faith”. Eventually, Wiberg also takes the conventional view that low trust in politicians in general may also endanger the stability of a political system, even the whole existence of the democratic order (Wiberg, 1986, p.1). This view is in accordance with experiences over the last two centuries, as the American political scientist Robert A. Dahl has maintained (1998). Dahl furthermore refers to the empirical fact that “democracies are affluent, and by comparison non-democracies are, on the whole, poor” (p. 58) The author of this paper agrees with Wiberg's and Dahl's statements about the positive influences between trust and democracy and affluence. One implicit consequence of this is that citizen's distrust towards politicians weakens the politicians' power to develop the community.

A common perspective of trust in political science is to connect it to citizens' confidence to public institutions and to groups regarded as important for the well-functioning of society. Thus, corruption and political scandals are typical examples of events that are detrimental to trust. One example is Yann Algan and Pierre Cahuc (Algan and Cahuc, no date) who state that it is often argued that social attitudes such as trust are one of the main determinants of economic development. Even more outspoken on this issue is Joseph E. Stiglitz, the Nobel prize winner in economics in 2001. In his book *Freefall* (Stiglitz, 2010) he takes a look at the global economic crisis of 2008 and expresses it as simple as this. “Even in a market economy, trust is the grease that makes society function” (p. 289).

Jacob Dearmon and Kevin Grier have done a study, which is reported in an issue of *Journal of Economic Behavior & Organization* (2009). Their paper is titled *Trust and development*. Dearmon and Grier report results from their own study, where they found trust to be a significant factor in development, and that they also showed “for the first” time that trust significantly interacts with both investment in physical and human capital (Dearmon and Grier, 2001, p. 2010).

A second scholar, Kenneth Arrow has stated that “Virtually every commercial transaction has within itself an element of trust, certainly any transaction conducted over a period of time. It can be plausibly argued that much of the economic

backwardness in the world can be explained by the lack of mutual confidence” (Arrow, no date).

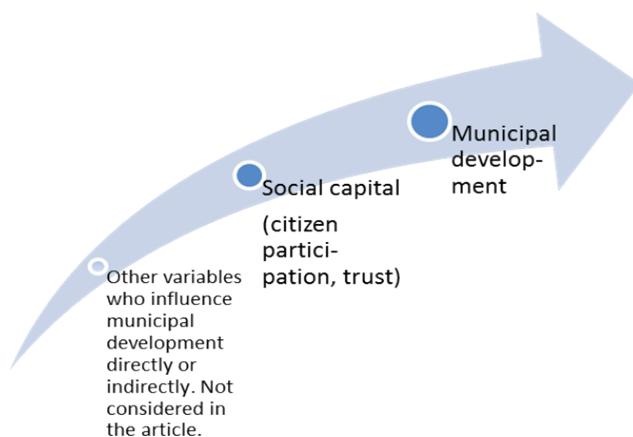
A third scholar to be brought up here is David Halpern, who already has been mentioned in the introduction (Halpern, 2010). Halpern simply notes that “A society of trustworthy citizens is a platform for both economic growth and well-being” (p. 2).

Some economists, like Yann Algan and Pierre Cahuc, in a paper available on the website of VOX, (Algan and Cahuc, no date), deal with what they proclaim is “paradoxically” in economists struggling for providing empirical evidence on the impact of social attitudes on economic development. Algan and Cahuc criticize in that paper Knack and Keefer of leaving “completely unexplained” the relation of causality between trust and growth, and by leaving out this may result in “misguided policy recommendations”. Algan and Cahuc illustrate their argument by mentioning that people living in wealthy countries, with efficient institutions, are likely to be more trusting people than people living in developing countries at war. Algan and Cahuc argue that one might mistakenly conclude that a prerequisite to strengthen social cooperation is to foster economic development first, but the relation between trust and development is the other way around: that trust comes first. This article follows Algan and Cahuc in that regard.

Questions regarding why a municipality comes out as it does on indicators of social capital is outside the aim and purpose of this article.

On the basis of these illustrations from academic use of the concept social capital, the center of the article comes to be that citizen participation in social, economic and political life, and citizens’ trust towards significant groups of people in the society are vital prerequisites for development. ((Correspondingly the type of citizen participation at stake here served as a basis for the COMPETE project (Liberda and Grochowska, 2009, p. 7)).

Figure 1 shows the theoretical framework for the article. According to the arguments above social capital is considered to be the main variable to foster municipal development. Of course also other variables are influencing municipal development. These other variables are marked as a small spot to the left in the figure and are considered to be outside the theoretical framework of the article. The arrow signifies the pivotal connections.

Fig. 1. Social capital as variable to foster municipal development

The COMPETE study revealed tiny amounts of social capital in the five Polish municipalities which were included (Tomczak and Tufte, 2011). Even though the municipalities in the COMPETE study do not belong to the Eastern regions of Poland, this article maintains that municipalities in Eastern Poland resemble those of the rest of Poland simply because most municipalities in Poland are situated in less developed regions¹. Therefore it should be lessons to be learnt from the COMPETE study when one pursues measures for development in Eastern Poland.

Method and data

Most of the data used in this article is selected from the 2009 COMPETE survey, which consists of answers to a personal questionnaire to citizens in the five Polish municipalities, Manowo, Gliwice, Zgierz, Malogoszcz and Gostyn. The survey was conducted with representative samples from each of the five municipalities. Additional data is also used, primarily from the European Social Service study (ESS, 2013), which contains country-based data from 27 countries. The data from ESS was collected in 2012. Also data from Urzula Dzwil's (2011) computation on COMPETE data is used.

The paper concentrates on such measures of social capital, which are applied in the questions in the COMPETE survey. Analyzed here is only a selection of questions connected to specific types of citizen participation in public affairs, and to citizen's trust in certain groups of people in the society. The results from the European Social Study (ESS), which were presented in the COMPETE publications,

¹ In the Country factsheet Polska issued July 2012 the majority of 16 regions in Poland are characterized as less developed regions. Only the region Mazowieckie is characterized as a more developed region (EUROSTAT, 2013a, p. 15).

are updated with the most recent ESS round (ESS, 2013) and added to the original COMPETE data.

One can think of a lot of other types of measures for social capital, for sure, but the selection of measures in this article should suffice for its purpose, which is to putting forward some perspectives regarding future development in the municipalities mentioned. Comparisons between the five municipalities are done in spite of the low numbers of respondents. Also, comparisons of data on the municipal level and the national level are done, even though the variances are not included and therefore comparisons might be problematic and one has to be careful when drawing conclusions.

Results

For the sake of convenience, the results are divided in three categories; One category deals with individual participation in public affairs, represented by voting, by having contacted a political representative and by having signed a petition. The second category deals with membership in organizations, represented by membership in a professional organization, a political party and a trade union. Results from these two categories are shown in table 1 and 2, and contains data both from the COMPETE survey and from the ESS survey. The results are therefore not directly comparable. The third category contains five items: citizen's trust in politicians, teachers, scientists, priests, policemen and journalists.

We start with focusing on the category citizen participation in public affairs. The American political scientist Robert A. Dahl (1998) states that the act of voting is a basic type of political behavior in liberal democracies. Political participation by signing petitions and/or by contacting politicians are generally associated with people with higher education (Martinussen as referred in Aardal, 2011, p. 268).

The table below shows the survey results from the five municipalities in the COMPETE study while the results from Poland and the 27 European countries are from the ESS 2013 survey,

Tab. 1. Citizen participation on five types of public activities. % answering "yes"

Activity	Zgierz	Gliwice	Malogoszcz	Gostyn	Manowo	Poland	Total for 27 European countries
% voted last national election (2007)	64.6	63.2	57.7	58.6	56.4	67.7	72.8
% signed a petition	9.7	11.0	4.6	4.4	5.4	11.1	17.4
% contacted a political representative	2.6	1.5	5.0	1.1	2.6	8.6	12.2
	(n=)312	(n=) 316	(n=) 287	(n=) 293	(n=)274	(N=)1746	(N=) 52458

Source: The COMPETE survey 2009; ESS 2013.

Because the COMPETE data was collected in 2009 and the ESS survey data was collected in 2011/ 2012, one has to be careful when comparisons are made.

Citizens in the five municipalities show lower participation in general, compared with the figures from Poland and even more so compared with the 27 European countries.

Zgierz and Gliwice show the highest voting turnout, whereas Manowo shows the lowest one among the municipalities. All figures are below the turnout registered in the ESS study for Poland, as well as below the figure for all European countries in the ESS study.

Zgierz and Gliwice stand out as municipalities where the citizens are close to the national average with regard to having signed a petition.

All the five municipalities show markedly lower percentages than Poland, and again, even more so compared with the countries in the ESS study with regard to having contacted a political representative. On this activity Malogoszcz stands out with more than twice the percentages of the four other municipalities.

We now turn to the second category; membership in organizations. This type of activity resembles two of those mentioned in table 1, signing petitions and contacting politicians; they are generally associated with people with higher education (Martinussen as referred in Aardal, 2011, p. 268).

The ESS results are shown in the two columns to the right because they indicate that the five municipalities display lower percentages than the country sample of Poland on one of the three questions in the surveys. The third question has no equivalent data.

Tab. 2. Membership in organizations

Activity	Zgierz	Gliwice	Malogoszcz	Gostyn	Manowo	Poland*	Total for 27* European countries
% members of professional organization	2.9	3.1	2.8	3.3	2.4	-	-
% members of political party	0.8	0.7	0.6	1.1	1.1	0.7	4.2
(%) members of trade union	4.0	5.7	5.4	3.7	4.1	6.0	15.6
	(n=)312	(n=) 316	(n=) 287	(n=) 293	(n=)274	(N=)1746	(N=)52458

Source: The COMPETE survey 2009; * ESS4 2013. -= missing data.

Membership in a professional organization is highest in Gostyn and Gliwice, but the distance to the lowest, which we find in Manowo, is minor.

Membership of political party is close to nothing in all the five municipalities as they also are in Poland. Political party membership is slightly higher in the 27 European countries.

The last activity, membership of trade union, ranks highest among the three activities measured here. Gliwice has the highest proportion of respondents who are members of a trade union (5.7%) and Malogoszcz follows tight. The distance to the lowest membership in trade unions, which is Gostyn, is 2 percentage points. Membership of trade unions for all of Poland is slightly above the average in our sample. In contrast, the countries in the ESS study rank high above the survey results for Poland.

We now turn to the third category of results, which is citizens' trust.

Trust in this section simply means what the respondents in the COMPETE survey answered to the questions about their trust towards teachers, priests, policemen, journalists, scientists and politicians.

Urzula Dzwil (2011) has made a selection of answers from the five municipal samples in the COMPETE study. In this article Dzwil's results are converted according to the respondents' general level of trust towards the groups just mentioned. Table 3 shows the results from this converting.

Tab. 3. Trust towards teachers, scientists, priests, policemen, journalists, policemen. Ordered according to level of trust. (1 = highest trust, 5 = lowest trust)

Trust towards	Position according to respondents' answers about trust
Teachers and scientists	1
Priests	2
Policemen	3
Journalists	4
Politicians	5

Source: Own analysis of Urzula Dzwil's (2011, p. 192) computation of COMPETE data.

Politicians turn out to be the least trusted among the groups appearing in table 3, even less than journalists, which might come as a surprise to some readers. Before we turn to conclusions, our own opinion of the results is that the relatively low positions of social capital in the municipalities studied are consistent with empirically based theoretical statements from other academics, as shown in the introduction. Furthermore, two limitations regarding the results should be mentioned here: Comparisons between the five municipalities are done in spite of the low numbers of respondents, and comparisons of data on the municipal level and the national level are done, even though the variances are not included. These limitations compel us to be careful when comparisons are made.

Conclusions

This article has brought forward results from the COMPETE study in combination with data from the European Social study and empirical based theoretical statements from academics who have dealt with perspectives about civil society. Factors identified as social capital – by some also labeled “the hidden wealth of nations” – are often disregarded when development measures are discussed. What is the most important lesson from this article is that the perspectives brought forward are valid also for Eastern Poland because the majority of municipalities in Poland are situated in less developed regions.

A policy implication for decision makers might be to cultivate factors involving citizen participation in public affairs and of trust in politicians.

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Valuation of human capital on the example of the aircraft repair company in Ukraine

Wycena kapitału ludzkiego na przykładzie ukraińskiego przedsiębiorstwa naprawy samolotów

Oksana Lipycz

Uniwersytet Narodowy «Lvivska Politechnika» we Lwowie

Summary

The intellectual capital is the most important value of enterprises. It is a capital, which is the basis of competitiveness. Consequently very important is measurement of intellectual capital. This publication presents measuring of intellectual capital of the enterprises.

Streszczenie

Kapitał intelektualny jest obecnie największą wartością współczesnych organizacji. Jest on zasobem, który istotnie wpływa na przewagę konkurencyjną przedsiębiorstwa. W związku z czym niezwykle istotne jest by dokonywać pomiar kapitału intelektualnego. Niniejsza praca skupia się na wycenie kapitału intelektualnego przedsiębiorstwa.

Keywords: human capital, intellectual capital, human resources, the estimation

Słowa kluczowe: kapitał ludzki, kapitał intelektualny, zasoby ludzkie, zasoby ludzkie, oszacowanie

In today's economy there has been a significant increase in the total volume of investment in human capital, which includes education, knowledge, work skills, work experience, motivation to work, used in the production of tangible and intangible benefits to achieve the strategic goals of these companies.

Let us consider approaches to the interpretation of the category of human capital. O. A. Grishnova understands the human capital as the totality of the productive abilities formed and developed as a result of investments, personal traits and motivations of individuals used in economic activities, contributing to productivity growth and thus affect the growth of income of the owner as well as the national income [1]. This definition characterizes the human capital of society in general. L. T. Shevchuk sees it as the capital resources of the society invested in people, man or as a possibility of a man to take part in the production, to create, to build, to produce values; he defines the concept of „human capital” as part of the total knowledge, skills and qualifications of the workers who are able to generate income i.e. which is used to produce goods and services. [5] L. I. Mikhailov considers human capital as an assessment of the potential ability of the individual to generate income. [4] Koroliuk N. M. shares the thought of the previous author [3], and adds, that it should also include knowledge, skills, human intelligence, which provide a profit. A. N. Dobrynin and S. A. Dyatlov understands the Human Capital as a stock of human health, knowledge, skills, abilities, motivations, which should be used in the process of work, which favours to increase productivity and earnings. [2] We should mention that this definition, as well as the one given by L. I. Mikhailova and N. Koroliuk, regards the human capital of the individual worker rather than of the whole enterprise. G. Becker proposes to distinguish education capital, health capital, professional training capital, migration capital, as well as significant economic information possession and motivation for economic activity in the human capital [6].

Human capital, according to the results of studies conducted by Edvinsonom L. and M. Malone for the Swedish insurance company «Skandia» is part of the intellectual capital of the company (**Figure 1**).

Fig. 1. Skandia model of intellectual capital Note:[8]

The value of the approach lies in a clear differentiation of the categories of human and structural capital and in the expanded definition of their content. Human capital is defined as a complex of knowledge, practical skills and creative abilities of the organization staff needed to meet current challenges. Its other components are the moral values of the company, labour culture and general attitude towards the business.

Structural capital is owned by the company and includes customers bases (client assets), and systematic and formalized competence of company, systems which increase its creative effectiveness, organizational capabilities, aimed to create the product and its cost (organizational capital).

Thus, human capital is a complex of productive-qualificative and socio-personalized assets of the workers whose potential is capable to turn into capital in the process of its productive use and continuous and harmonious development, combined with rational efforts of both the individual, an enterprise, government and society. When involved in industrial activity with a certain aim human capital of workers is conceptually identical to the human capital of the economic entity: unused human capital of workers is a potential resource for an enterprise.

Aircraft repair enterprises activity is aimed to modernization and production of aviation equipment as well as different types of services and maintenance of this equipment. The basis of study of the human capital consists of personal qualities and characteristics of their employees, their age and education level, professional experience and length of service. Data on the provision of enterprise workforce in 2012 are listed in Table 1

Tab. 1. Total employment in the aircraft repair enterprises in 2012

Name of the company	State Enterprise „Luts'k Repair Plant” Motor		Lviv State Aircraft Repair Plant		Lugansk Aircraft Repair Plant		Mykholaiv Aircraft Repair Plant NARP		Konotop Aircraft Repair Plant		Chuhuiv aircraft repair plant OArP		”Odessa aircraft plant”		Zaporizha state aircraft repair plant „MIG repair”		Sevastopol aviation company		Evpatoria aircraft repair plant	
	num-ber	%	num-ber	%	nb.	%	nb.	%	nb.	%	nb.	%	nb.	%	nb.	%	nb.	%	nb.	%
Average number of workers	924	100	1009	100	598	100	675	100	901	100	510	100	863	100	647	100	397	100	148	100
Number of industrial personnel	865	93	859	85,1	567	94,8	648	96,0	874	97,0	483	94,7	863	100	626	96,8	392	98,7	147	99,3
Workers	577	63	634	62,8	379	63,4	402	59,6	632	70,1	277	54,3	556	64,4	365	56,4	260	65,5	92	62,2
main	365	40,0	381	37,8	231	38,7	239	35,4	391	43,4	163	32,0	357	41,4	234	36,2	173	43,6	61	41,4
assistant	212	23,0	253	25,0	148	24,7	163	24,2	241	26,7	114	22,3	199	23,0	131	20,2	87	21,9	31	20,8
Managers	117	13	61	6	40	7,0	84	13,0	61	7,0	72	15	104	12,0	75	12,0	43	11,0	18	12,0
Specialists	149	16	129	15	113	20,0	104	16,0	114	13,0	63	13	74	8,6	96	15,3	28	7,2	18	12,2
Technical staff	22	2	36	1	35	4	58	7	67	7	71	12	129	15,0	90	13,0	60	15,0	19	13,0
Number of non-production personnel	59	7	150	14,9	31	5,2	27	4,0	27	3,0	27	5,29	0	0,0	21	3,2	5	1,3	1	0,7

Note: [researched by the author]

The largest number of staff is at the Lviv State Aircraft Repair Plant (1009 persons), the lowest is in Evpatoria aircraft repair plant (148 people). The highest proportion of workers is in Sevastopol aviation company (65.5%), managers in Chuguyiv aircraft repair plant (15%), due to the complexity of the organizational structure of the plant, experts at the Lugansk repair plant „Odesaaviaremservis” and Sevastopol aviation company 15% of the total number of industrial personnel. The part of non-production personnel in the structure of the average number of employees is low, in only 4%.

To determine the coefficient of the human capital usage of the enterprise we should take into consideration indices that characterize intellectual capital of the enterprise such as number of employees with higher education, special training, intellectual product in its total income after the sale.

Tab. 2. Employment assessment in the aircraft repair business in 2012

Name of the company	The share of employees with higher education in the average number	The share of employees who were trained in the average number	Share of intellectual products in total revenue from the sale
State Enterprise „Lutsk Repair Plant” Motor	24,6	3,9	4,1
„Lviv State Aircraft Repair Plant	31,1	5	3,2
Lugansk Aircraft Repair Plant	28,7	4,3	5,1
Mykholaiv Aircraft Repair Plant NARP	24,3	2,6	2,3
Konotop Aircraft Repair Plant”	22,4	2,7	3,2
Chuhuiv aircraft repair plant OArP”	19,8	2,5	0
”Odessa aircraft plant”	30,4	3,5	2,4
Zaporizha state aircraft repair plant „MIG repair”	27,3	3,4	1
Sevastopol aviation company	25,1	2,3	0
Evpatoria aircraft repair plant	21,2	2,4	0
The average value for enterprises	25,5	3,3	2,03

Note: [researched by the author]

The human capital usage coefficient we will determine by means of comparison of the human capital indices with the average indices according to the type

of activity (Table 3). The human capital usage coefficient is the highest for the State Enterprise „Lutsk Repair Plant” Motor „1.39, Lviv State Aircraft Repair Plant 1.44 and Lugansk Aircraft Repair Plant 1.65, the lowest for Chuguyivsky Aircraft Repair Plant 0.51, Sevastopol Aircraft enterprise 0.56, Evpatoria aircraft repair plant 0.52.

Tab. 3. Coefficient of the human capital in the aircraft repair business in 2012

Name of the company	The share of employees with higher education in the average number	The share of employees who were trained in the average number	Share of intellectual products in total revenue from the sale	Coefficient of the human capital usage
State Enterprise „Lutsk Repair Plant” Motor	0,96	1,18	2,02	1,39
„Lviv State Aircraft Repair Plant	1,22	1,52	1,58	1,44
Lugansk Aircraft Repair Plant	1,13	1,3	2,52	1,65
Mykholaiv Aircraft Repair Plant NARP	0,95	0,79	1,13	0,96
Konotop Aircraft Repair Plant”	0,88	0,82	1,58	1,09
Chuhuiv aircraft repair plant OArP”	0,78	0,76	0	0,51
”Odessa aircraft plant”	1,19	1,06	1,18	1,15
Zaporizha state aircraft repair plant „MIG repair”	1,07	1,03	0,49	0,86
Sevastopol aviation company	0,98	0,7	0	0,56
Evpatoria aircraft repair plant	0,83	0,73	0	0,52

Note: [researched by the author]

Let us characterize the costs for aircraft repair enterprises workers training (Table 4). The highest costs for staff training and retaining is in the Lviv State Aircraft Repair Plant 78,748 thousand hryvnas, which is a natural, as there is the highest number of employees in this enterprise, there is the highest costs for training and improving their workers qualification skills, due to similar reasons. The second place is shared by Lutsk (59,644 thous. hr.) and Odessa aircraft repair plant (58 212 thous. hr.), The last place takes Evpatoria aircraft repair plant (11 528) thousand hryvnas.

Tab. 4. Costs of training and retention the employment aircraft repair business in 2012, thousand UAH (1 UAN=0,09 EUR)

Name of the company	Labor costs	Social costs	Costs for teaching new trades	The cost for training	Total
1	2	3	4	5	6
State Enterprise „Lutsk Repair Plant” Motor	43259	16020	254,6	110,9	59 644
„Lviv State Aircraft Repair Plant	55932	22373	339,4	104,0	78 748
Lugansk Aircraft Repair Plant	33736	13494	179,1	69,3	47 478
Mykholaiv Aircraft Repair Plant NARP	33444	13378	103,7	20,8	46 946
Konotop Aircraft Repair Plant”	50388	20155	169,7	41,6	70 754
Chuhuiv aircraft repair plant OArP”	14845	5938	75,4	20,8	20 879
”Odessa aircraft plant”	41387	16555	207,4	62,4	58 212
Zaporizha state aircraft repair plant „MIG repair”	22592	9037	132,0	13,9	31 775
Sevastopol aviation company	20449	8180	56,6	20,8	28 706
Evpatoria aircraft repair plant	8204	3282	28,3	13,9	11 528

Note: [researched by the author]

The cost of human capital (HC) can be defined by means of multiplying the human capital usage coefficient (k_h) and the cost of personnel training and maintaining (V).

$$HC = V * k_h \quad (1)$$

Tab. 6. Value the human capital aircraft repair business in 2012, thousand UAH (1 UAN=0,09 EUR)

Name of the company	Total
State Enterprise „Lutsk Repair Plant” Motor	82 905,8
„Lviv State Aircraft Repair Plant	113 397,6
Lugansk Aircraft Repair Plant	78 339,2
Mykholaiv Aircraft Repair Plant NARP	45 067,9
Konotop Aircraft Repair Plant”	77 121,6
Chuhuiv aircraft repair plant OArP”	10 648,3
”Odessa aircraft plant”	66 943,3
Zaporizha state aircraft repair plant „MIG repair”	27 326,4
Sevastopol aviation company	16 075,1
Evpatoria aircraft repair plant	5 994,5

Note: [researched by the author]

Thus, the highest value of human capital is in the Lviv State Aircraft Repair Plant 78,748 thousand hryvnas, the second place is shared by Lutsk (82 905.8 thous.) and Lugansk Aircraft Repair Plant (78 339.2 thous.), then come Mykholaiv aircraft Repair Plant „NARP” 45 067.9 thous., Konotop aircraft Repair Plant „Avikon» 77 121,6 thous., Chuguyiv aircraft repair plant 10 648,3 thous., Odessa aircraft repair plant „Odesaaviaremservis „66 943.3 thous., Zaporozhye State aircraft Repair Plant” Could repair „27 326.4 thous. Sevastopol aviation company 16 075.1 thous., Evpatoria aircraft repair plant 5 994.5 thousand. UAH.

To analyze the impact of human capital on the amount of pure income we will use the regression model and the following formula (2):

$$Y = ax + b \quad (2)$$

where Y is an income in ths. UAH; x – the value of human capital ths UAH; The decision of the model requires a preliminary analysis of the indices under study (Table 7).

Tab. 7. Initial data for calculation of the impact the human capital on the value of aircraft repair companies net profit in 2012, thousand UAH (1 UAN=0,09 EUR)

Name of the company	The value of human capital	The net
State Enterprise „Lutsk Repair Plant” Motor	82 905,8	160 329
„Lviv State Aircraft Repair Plant	113 397,6	327 744
Lugansk Aircraft Repair Plant	78 339,2	290 744
Mykholaiv Aircraft Repair Plant NARP	45 067,9	127 754
Konotop Aircraft Repair Plant”	77 121,6	354 094
Chuhuiv aircraft repair plant OArP”	10 648,3	53 745
”Odessa aircraft plant”	66 943,3	144 846
Zaporizha state aircraft repair plant „MIG repair”	27 326,4	117 791
Sevastopol aviation company	16 075,1	95 980
Evpatoria aircraft repair plant	5 994,5	65 752

Note: [researched by the author]

To find the numerical values of the regression parameters (a and b) we will use the formulas

$$a = \frac{n \sum_{i=1}^n x_i y_i - \sum_{i=1}^n x_i \sum_{i=1}^n y_i}{\sum_{i=1}^n x_i^2 - (\sum_{i=1}^n x_i)^2} = 2,88; \quad (3)$$

$$b = \frac{\sum_{i=1}^n y_i - a \sum_{i=1}^n x_i}{n} = 15390,88 \quad (4)$$

To estimate the closeness of the relationship between factors and indices and find the correlation coefficient we will use the following formula:

$$r[x, y] = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^n (x_i - \bar{x})^2 \sum_{i=1}^n (y_i - \bar{y})^2}} = 0,89 \quad (5)$$

As r tends to 1 then between the human capital and the income there is close correlation. Tabular correlation coefficient for the ten observations at 90% probability is 0.46. Calculated values are greater than tabulated, ie there is a true connection. To check the reliability of the model will. calculate the Fisher criterion (F).

$$F_{\text{розрах}} = \frac{R^2}{1 - R^2} \cdot \frac{n - m - 1}{m} = 165,44 \quad (6)$$

Let us compare the calculated value with the tabulated one of Fisher's exact test. It constitutes $F_{\text{table}} = 4.67$ for 10 observations. Calculated value exceeds the tabular Fisher's exact test, indicating that there is relationship between the income and the value of human capital. The coefficient of variation and criterion student, are within acceptable values.

Thus, the model $Y = 15390,88 + 2,88 b$ can be used in practice, and the value of human capital is closely connected with company profits.

Thus, in today's market transformation particularly important are decisions related to the search for new approaches to create the conditions for the formation, development and effective use of human capital, which depends not only on the current state of aircraft repair enterprises but also on future growth of their performance and competitiveness. In this regard, the value of human capital is a priority in the structure of economic research, namely the aircraft repair enterprises of Ukraine.

We consider the human capital as a complex of productive-qualificative and socio-personalized assets of the workers whose potential is capable to turn into capital in the process of its productive use and continuous and harmonious development, combined with rational efforts of both the individual, an enterprise, government and society. When involved in industrial activity with a certain aim human capital of workers is conceptually identical to the human capital of the economic entity: unused human capital of workers is a potential resource for an enterprise. We estimate the value of the human capital as a multiplication of utilization of human capital, taking into account the qualification of employees, the education workers level, their age, the average of their professional experience and the cost of personnel training. According to the research the human capital is at its highest rate at the Lviv State Aircraft Repair Plant. It makes it possible to conclude that this enterprise is an intelligent leader among other aircraft repair enterprises and it is the one to use human resources the most effectively.

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C. Technical and organiza- tional innovations in the development of enterprise

Innowacje techniczne i organizacyjne w rozwoju przedsiębiorstw

Investment in innovative technology projects as a key to sustainable economical development of the enterprise – evidence from LLC “Miroplast”

Inwestycje w projekty innowacyjne technologicznie jako klucz do trwałego ekonomicznego rozwoju przedsiębiorstwa – na podstawie przedsiębiorstwa LLC „Miroplast”

Nataliia Sokolovska, Nadiya Kuzemko
LLC „MIROPLAST”

Summary

The paper focuses on the feasibility of implementation of the innovative technologies in industrial enterprises of Ukraine, it is suggested to consider the optimization model of the investment project of new technology while maximizing profits under the terms of providing a balance between the amount of investment in innovative funds and the cost of maintaining a stable functioning of old ones. A practical case of using the suggested approach is shown at the chemical company LLC “MIROPLAST”.

Streszczenie

Autor artykułu skupia się na możliwości implementacji technologii innowacyjnych w przemyśle Ukrainy. Zaleca się rozważenie modelu optymalizacji projektu inwestycyjnego nowych technologii przy jednoczesnej maksymalizacji zysków w warunkach zapewnienia równowagi pomiędzy wartością inwestycji w fundusze innowacyjne i kosztem utrzymania stabilnego funkcjonowania inwestycji dotychczasowych.

Keywords: innovative technology, investment balance, basic production assets, returns on assets, gross income

Słowa kluczowe: technologie innowacyjne, równowaga inwestycyjna, podstawowe aktywa produkcyjne, stopa zwrotu z aktywów, dochód brutto

Innovation is one of the main driving forces of the economy of the country as a whole and its regions. The most important condition for the transition to an innovative way of development is the formation of national innovation system as a set of interdependent organizations engaged in manufacturing and commercial realization of scientific knowledge in the form of new technologies and products. The progressive activities of such organizations should be ensured by strict compliance with legal, financial and social norms and guarantees.

The purpose of this paper is to describe the mechanism of the transition of manufacturing industries to innovative technology through a preliminary study of their present activities and the analysis of the future ones. There have been performed the certain researches in this area, but in this paper it is represented the interpreted model of investment into the new technology project that provides a balance between the amount of investment in innovative funds and the cost of maintaining a stable functioning of the old ones. The object of this work is a chemical company LLC "MIROPLAST" which specialization lies in producing PVC profile systems and is a leader in this field in Ukraine. The company operates in the market since 2006 and during the operation period it doubled its production capacity. Due to the high quality and the price of product loyalty the demand leads to increase in output. This can be achieved in two ways: extensive and intensive. At the beginning of its development LLC "MIROPLAST" have been increasing the production capacity in extensive way for the most part. Production areas and funds have been doubled. In this aspect, the company has provided almost 50% growth of employment at the plant, which is important for Dnipropetrovsk region and contributing to its economic growth and development.

Extensive way is efficient and expedient at the start of an enterprise, so far as constant increase of industrial resources in quantity is impossible and economically inefficient way of enterprise development. After reaching a sufficient level of assets further development should take place through the intensive development – it is a process of social production based on the use of efficient means of production, subjects of labor, skilled labor, advanced forms and methods of work organization, growing awareness in accordance with the latest scientific achievements and technological progress. So with fewer resources the society provides bigger output.

Since 2010 year LLC "MIROPLAST" has a relatively large amount of production areas, and as a way of further development the direction sees the intensive development through the use of advanced production technology, improvement of qualification of the workers. In this aspect company had to make investment plan in new technologies for the purpose of directing a significant share of its income to the hardware upgrades, replacement of the old technologies with the new ones. One of the important issues in this process is the time interval of investment in new technologies: how quickly is it necessary to replace the equipment to rece-

ive the maximum profit? Obviously, the investments are limited by the economic opportunities, so it is necessary to distribute in an optimal way the funds allocated to innovative technology and the funds allocated to repair and renew the old funds. This question caused the importance of further research and consideration of the project of investment in new technology of the enterprise.

In the field of basic production assets there are always two main trends:

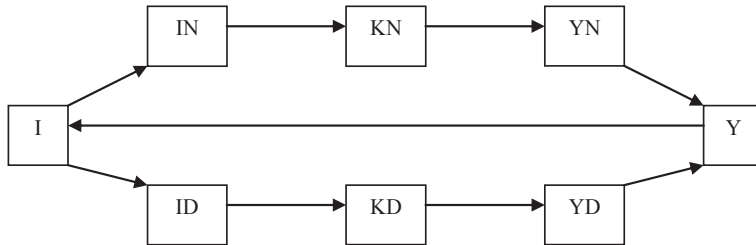
1. constant decline in the average returns on assets due to the obsolescence and aging of assets;
2. increase in returns on assets from the supply of new investments in the system, especially in new technologies – innovative investments.

Each of these flows is continuous in time, and as the model parameters are taken the speed values of their development.

It is assumed that the investigated area consists of two fund groups. Higher group includes basic production assets (BPA) with sufficiently high returns on assets, which composition is replenishing by investment but is decreasing because of retirement due to physical and moral deterioration of funds. This part goes into the lower group, in this way increasing the cost of funds, which it includes. Nevertheless, at the same time it is to reduce as another its part is considered totally worn out and is deducted from the BPA branch. Taking into account these flows and possible side factors it is necessary to determine the structure of capital transfers and renewal of production assets (basic production assets).

LLC “MIROPLAST” has an intention to invest in new technology. The investments and funds running in this field at the present time, the average returns on assets and capital productivity of innovative technologies are known. Investments arrive into basic production assets, which in turn are divided into old and new. New funds are converted into old ones with the given intensity; the old funds are withdrawn from the production also with the known intensity. Investment is limited; the development of the enterprise ought to be held by its gross income.

The process of turnover in this task is as follows (Fig. 1): Investment fund (I) is divided into the investment fund for old capital and investment fund for new capital (ID and IN, respectively), then the funds from mutual funds flow into the basic production assets (old – KD and new – KN). The next step, with the help of basic production assets the gross income is formed, which is derived from using old and new means (YD and YN, respectively), the amount of gross income forms the total gross income (Y), upon which is based the investment fund for the next period, as a part of the gross income.

Fig. 1. Flow of assets during the investment process in the innovation capital

With the set parameters of functioning it is necessary to analyze the dynamics of gross product changes with different intensity of retirement of basic assets, as well as to compare the value of the gross income generated by new and old technologies.

The model shown in the paper represents a dynamic task simulation.

The object of analysis in this task is the value of gross income (Y), which the company receives. Gross income is the sum of profits received from using old and new technologies.

Gross income received by means of new technologies (YN_t) in the year t is calculated using the average coefficient of returns on assets of new basic assets (BPA) (f_{t-1}^{-N}) in the year (t-1), and progressive coefficient of returns on assets (f_t^N) (characterizing the functionality of funds in the first year of operation) in the year t:

$$YN_t = f_{t-1}^{-N} (1 - \mu_N) KN_{t-1} + f_t^N IN_t \quad (1)$$

where KN_t – the new BPA of production unit (sector) in the year t;

IN_t – the capital that comes for technological development of new capital in the year t;

μ_N – the share of the transition of new BPA into the old ones.

Gross income obtained through the old capital (YD_t) in the year t is calculated using the average coefficient of returns on assets for old funds (f_{t-1}^{-D}) in the year (t-1), and the average coefficient of returns on assets for new funds, which were moved at the beginning of t-period to the old funds (f_{t-1}^{-N}) and through the progressive coefficient of returns on assets for old funds (f_t^D) in the year t.

$$YD_t = f_{t-1}^{-D} (1 - \mu_D) KD_{t-1} + \mu_N KN_{t-1} f_{t-1}^{-N} + f_t^D ID_t \quad (2)$$

where KD_t – the old BPA of production unit (sector) in the year t ;

ID_t – the investment capital, which comes for technological development of the old capital in the year t ;

μ_D – the share of the old BPA that leave the system.

The coefficients of average returns on assets for the old (new) capital is calculated as the ratio of gross income received from the old (new) capital to available old (new) capital:

$$f_{t-1}^{-N} = \frac{YN_{t-1}}{KN_{t-1}},$$

$$f_{t-1}^{-D} = \frac{YD_{t-1}}{KD_{t-1}} \quad (3)$$

The value of total investment (I) is given at the beginning of the period. In subsequent periods the total investment value is calculated as the proportion of total gross profits received in the previous year:

$$I_t = \alpha Y_{t-1} \quad (4)$$

where α – the share of investment in gross product.

On the other hand, the total investment consists of investments, which are going to update new funds (IN_t) and investments, which are going to update old funds (ID_t). That is:

$$I_t = IN_t + ID_t \quad (5)$$

Hence, the total investment is divided into investments in new capital and old capital, while the value of investments, which are going to update new technologies, is the part of the total investment:

$$IN_t = \beta I_t = \beta \alpha Y_{t-1} \quad (6)$$

where β – the coefficient of deductions into new basic assets.

Then the part of the total investment remained after deductions to new production fund goes to renew the old capital:

$$ID_t = (1 - \beta)I_t = (1 - \beta)\alpha Y_{t-1} \quad (7)$$

Basic production assets of innovative course (KN_t) in the year t are formed by the replenishment of the investment fund in year t (this part of BPA works on progressive coefficient of returns on assets) and new production assets that remain from last year (KN_{t-1}):

$$KN_t = (1 - \mu_N)KN_{t-1} + IN_t \quad (8)$$

The value of old production assets in year t (KD_t) is formed by remnants of the old assets from the previous year (KD_{t-1}), by replenishment due to the conversion of new funds into the old ones (KN_{t-1}) and investment inflow (ID_t) in the year t (this part of the funds works with a progressive coefficient of returns on assets):

$$KD_t = (1 - \mu_D)KD_{t-1} + \mu_N KN_{t-1} + ID_t \quad (9)$$

Initially in this model are given the values of the coefficient of old funds retirement (μ_D), the coefficient of conversion of the new funds to the old ones (μ_N), coefficients of progressive returns on assets for new and old funds (f_t^N, f_t^D), the coefficients of investment allocations (α, β) and the value of the initial investment (I). Also is needed the information about the capital running in the branch at the beginning of the period.

So with the aim of developing the processing industry by investing in the latest technology the state has to choose one of the suggested technologies.

As the main criterion is taken the gross income (Y), which the industry receives using either of technologies. The value of the gross income is influenced by basic production assets, which have different coefficients with respect to certain technology:

- taking out of production (μ_D) and
- conversion to old assets (μ_N).
- Also, each technology has its own parameters:
- average returns on assets (f_t^{-N}, f_t^{-D}), calculated on the basis of past years for available new and old funds;

- progressive returns on assets (f_t^N, f_t^D), which is used only for technologies arrived in the billing period.

Gross profit is formed by means of basic production assets, which are divided into old capital (KN) and new capital (KD). Total profits received by means of old and new capital (YD and YN respectively) equals the gross income (Y).

In other words, the gross income received from the old capital is formed as the sum of profits received from:

- remnants of the old capital;
- capital, recently moved from the new fund to the old one;
- profit, received due to investment inflows in the old fund (ID).
- It is shown in the following formula:

$$YD_t = f_{t-1}^{-D} (1 - \mu_D) KD_{t-1} + \mu_N KN_{t-1} f_{t-1}^{-N} + f_t^D ID_t \quad (10)$$

Gross income, produced by new funds, is formed as the sum of profits obtained by the new fund balances (KN), and investment inflows in the new fund (IN):

$$YN_t = f_{t-1}^{-N} (1 - \mu_N) KN_{t-1} + f_t^N IN_t, \quad (11)$$

where progressive returns on assets is set by external factors, and the average returns on assets is calculated by formulas (individually for new and old funds):

$$f_{t-1}^{-N} = \frac{YN_{t-1}}{KN_{t-1}},$$

$$f_{t-1}^{-D} = \frac{YD_{t-1}}{KD_{t-1}}$$

In this case the gross income from basic production assets with the high progressive returns on assets is not necessarily high, because the average returns on assets may be low and vice versa.

Investment fund (I) is formed by the gross income received in the previous year and then is divided between the new and the old fund:

$$I_t = \alpha Y_{t-1} = IN_t + ID_t, \quad (12)$$

According to the given sequence of equations the value of gross income with the usage of different technologies is calculated. And it is chosen the kind of technology, which provides higher gross income to the industry.

Since 2010 and over the next eight years the company “MIROPLAST” is intended to update the production funds by investing in the latest technology. This takes into account that the update will take place gradually through the annual allocation of funds from the gross profit for 8 years. Investments will be divided between the old funds – for their repair and functionality maintenance, and between the investments in innovation capital. The share of the gross income which goes to investment fund is 10%. The project realization is possible in two ways. In the first case, the share of investment in innovative capital is 60%, in the second – 90%. In the second option the share of the old BPA leaving the system increases compared to the first option by 20%, while the share of the new BPA, converting into the old ones is decreased by 5%. Progressive coefficients of returns on assets equal 0.35 and 0.50 for old and new BPA respectively. In this aspect the direction of LLC “MIROPLAST” should choose one of the investment options in view of future gross profits.

Based on the present approach the following results were obtained. Within the total basic assets the share of old funds due to the first option will constantly decrease and after the fifth year will be on average 46% (Fig. 2). Due to another option, the share of old funds will decrease during the first four years and then will hold steadily at 21% (Fig. 3). Constant level of the old funds will maintain by an outflow from new funds into old. The total amount of old funds depends on the amount of their retirement from the system. It is obvious, that the smaller coefficient of conversion of new funds into the old and growing retirement rate of old funds from the system in the second option cause the lower amount of total old BPA.

Fig. 2. Structure of basic assets for the first investment option

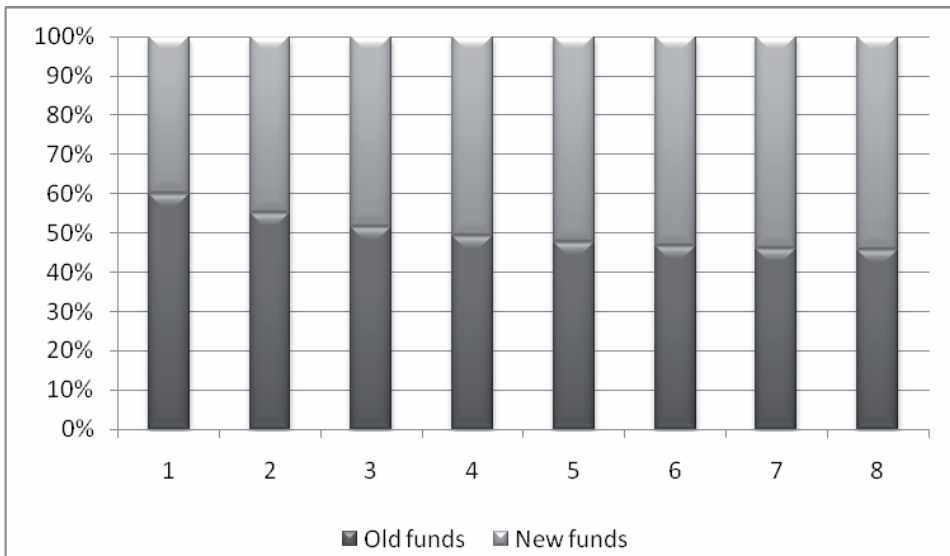
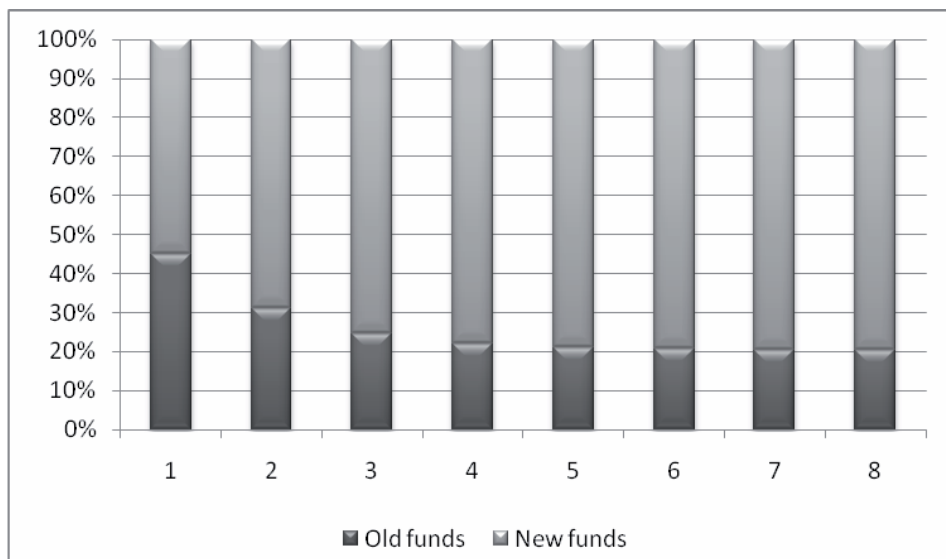
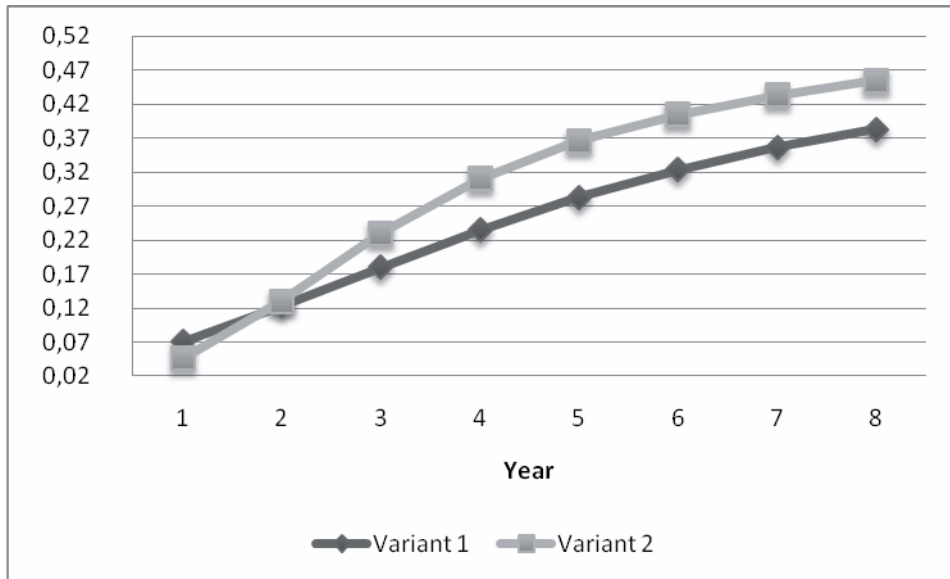
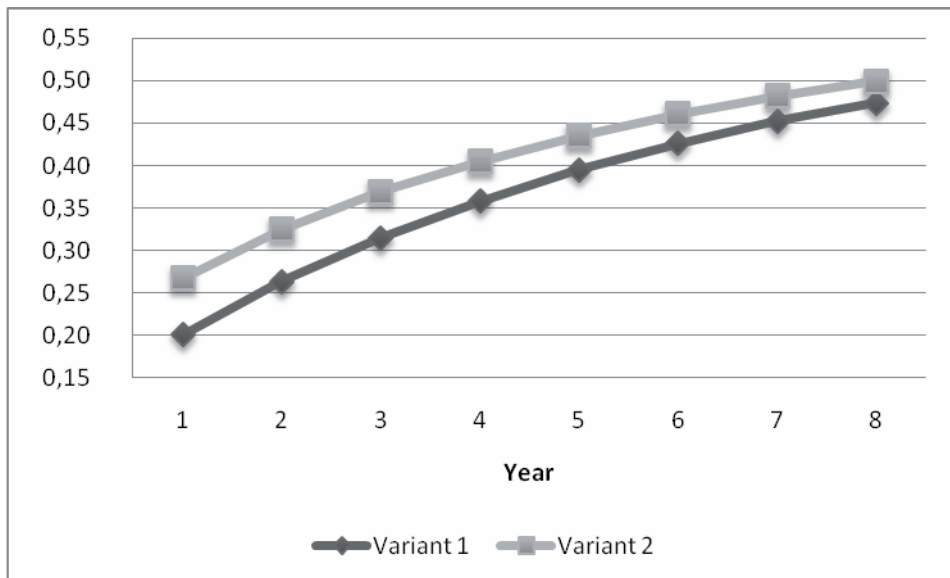


Fig. 3. Structure of basic assets for the second investment option

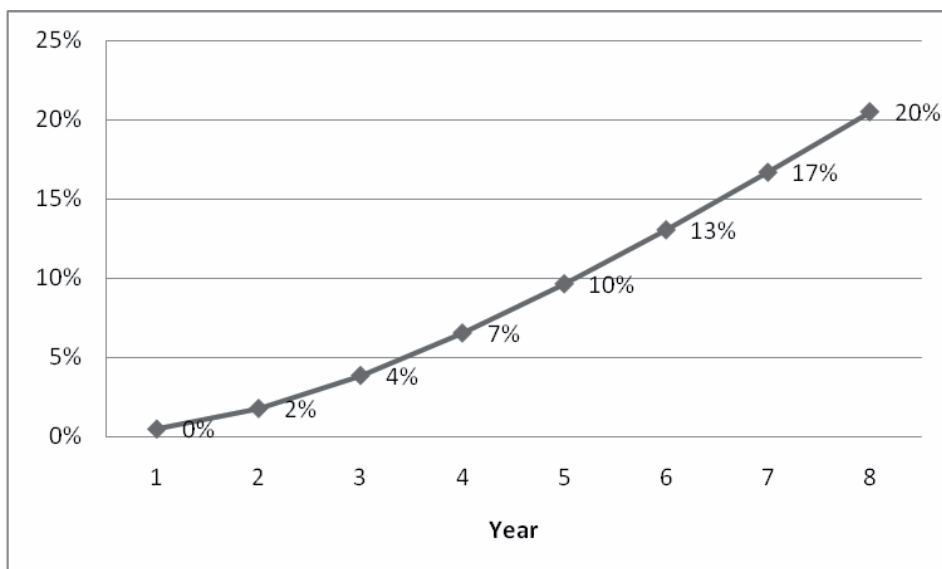
In the course of investing in innovative technologies, the average returns on assets over eight years will grow. However, the rate of increase in returns on assets will gradually decrease due to the limited capacity of technology. As the old funds are replenished by means of the new ones, returns on assets of the old capital will draw closer to the new one. It should be noted that in the first case of investment returns on assets of old funds will be lower than returns on assets of old funds in the second investment option (Fig. 4). A similar tendency is observed for innovative technologies (Fig. 5).

Fig. 4. Coefficient of average returns on assets of old funds**Fig. 5.** Coefficient of average returns on assets of new funds

So from the point of view of economic efficiency of basic assets the second investment option is more profitable. In the second option the old funds are upda-

ted faster by means of new ones, innovative capital grows more rapidly, causing a significant increase in returns on assets. Due to this tendency in the case of the second option of investing the gross income in the final year of the project exceeds the profit from the first option by 20% (Fig. 6). So the second investment project, despite the relatively high rate of retirement of the old funds, is more profitable from the economic point of view.

Fig. 6. Profit correlation between the first and the second investment option



For both options the company as a whole is at a high technological level and some of its new funds, which are converted into the category of old ones, the company covers by investments (deductions from the gross income) and gets rid of old funds with higher intensity in the second option, which, after all, is more profitable in terms of gross income. So, the implementation of innovative technologies is a rational step, but it is necessary to implement it gradually to ensure the stable and reliable development of company.

Today the need for research in the field of innovation development is undeniable. The model presented in this work is based on the earlier developments in this field, but unlike the others it suggests to maintain a balance between the investment in new capital and the funds for renovation of old funds in order to maximize profit. Practical calculations show the necessity and reasonableness of technology renewal in economic sectors. Calculations are made on a fairly short period, because in the present condition of the country the long-term planning for more than 10 years is quite problematic due to the instability of the economic

situation. It should be noted that the development of innovative enterprises will promote the sustainable development growth of the region and the country as a whole, since it involves increasing of economic profits, raising the qualification level of the population, an increase in employment and average wages.

By means of innovative technology appears the possibility to enter the international market for those industries, which did not have a single chance before. Striking confirmation of this is the fact, that over the past five years the company "MIROPLAST" has increased the volume of export sales almost by five times, and today 50% of company products are exported to 5 countries. Therefore, for the development and the general export orientation of our economy it is absolutely necessary to create a powerful national innovation system as a set of interrelated institutions that conduct manufacturing and commercial realization of scientific knowledge in the form of the latest technological developments.

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Formation of matrix of interconnections of service quality indices based on the harmonization of the stakeholders' interests (on the example of communal enterprise "lutskvodokanal")

Tworzenie połączeń sieciowych z macierzy wskaźników jakości usług na podstawie harmonizacji interesów zainteresowanych stron (na przykładzie przedsiębiorstwa komunalnego "lutskvodokanal")

Liubov Lipych, Olga Ivankiv

Easteuropean National University named by Lesya Ukrainka (Ukraine, Lutsk)

Summary

In the article the method of formation of matrix of interconnections of service quality indices based on the harmonization of the stakeholders' interests is described.

Streszczenie

W tym artykule określona jest metoda tworzenia macierzy wskaźników jakości usług połączeń sieciowych na podstawie harmonizacji interesów zainteresowanych stron

Keywords: interconnections matrix, quality, services, requirements

Słowa kluczowe: macierz połączeń sieciowych, jakość, usługi, zapotrzebowanie

The competition, which is formed in the service market, forces enterprises to seek the new ways of creating products and customer service actively, as their requirements and competencies are constantly increasing.

Today consumers see less technical differences between competing goods and services, so it is necessary to create advantages through added value. Thus the main source of the creation of such added value is high quality customer service.

In the ideal circumstances, customers will be satisfied if they get what they want, when they want and as they need. Speaking of utilities, consumers will agree that the service of good quality (water without impurities, appropriate heat supply, good housekeeping of adjacent territories, etc.) is important at a time when there is a need for these services.

Taking into account current trend, aimed at providing a range of services, which assessment includes a huge number of quality indices of service delivery. The main assessment principle of the proposed method is based on the formation of a representative sample of service quality indices, which is determined by the identification of dependency among the stakeholders' requirements and the service quality indices.

When giving the range of services for each consumer a package of certain parameters is formed, upon which we can determine the most important requirements. Service parameters include:

- the desired set (package) of services from the presented complex of the enterprise;
- the requirements of stakeholders, which fulfillment is necessary to provide the necessary service package;
- processes of this service package providing.

Determination of the basic parameters of services allows, considering the relationship between requirements and indices, to establishing sample of meaningful quality indices from the presented system for each case of services provision.

To install this dependency **connection** matrix is constructed – Matrix diagram, where the requirements of involved in the provision of services stakeholders and service quality indicators are presented in graphic form.

The purpose of the chart is the image matrix circuit connections and correlations between tasks, functions and features with the release of their relative importance. Therefore in the final line matrix chart expresses compliance of a number of factors and phenomena to the reasons for their occurrence and elimination of their consequences, and also shows the dependence of these factors on their causes and measures to address them. Connections Matrix (Table 1) shows the presence and closeness of ties of components such as stakeholder requirements $a_1, a_2 \dots a_i$ service quality indices of $b_1, b_2 \dots b_j$. Communication between the compo-

nents in the matrix connections is displayed using special symbols which characterize the degree of closeness of these relationships [1;4].

If the rows of links missing any symbol, it means that the relationship between the requirement a and service quality indices is not available. If the character is absent in the columns of the matrix, the parameter b of the corresponding column has no effect on any of the claims in this line. The symbol that stands at the intersection of row and column matrix diagram indicates not only the connection between the components, but also the closeness of the connection, as shown in the Table 1.

Tab. 1. Connections Matrix

	b_1	b_2	b_3	...	b_j
a_1	■				
a_2		●			
a_3		○			●
...				○	
a_i			■		

where a_1, a_2, \dots, a_i and b_1, b_2, \dots, b_j are the components studied the requirements and indicators, which are characterized by different distress communications:

● – strong, ■ – medium, ○ – weak.

A similar connections matrix is built for establishing mutual influence of quality indices on each other. In this case, the matrix should fill only the lower part of the triangle, separated from the upper diagonal, held at the intersection of matching quality (Table 2). This is because if the previous one input matrix diagram is claims another entrance is quality indicators, now the quality indicators will be against quality.

Tab. 2. Matrix of Connections of Quality Indices

Quality indices	b_1	b_2	b_3	...	b_j
b_1	●				
b_2	■	●			
b_3	●		●		
...			○	●	
b_j	○	■	●	○	●

This approach to assessing the quality of services, based on establishing the relationship between the demands of stakeholders in the enterprise and service quality indicators considering their mutual influence on each other, allows to make decisions about the quality of services on the basis of determining the degree of fulfillment of requirements by minimum set of characteristics to be measured and monitored during the service.

Algorithm of decision about the quality of services aimed at the implementation of the proposed method consists of two parts:

- sampling quality indices for a given service parameters;
- decision making about the quality of services based on the identified quality indicators that do not meet the specified range of values (the NZD quality indicators).

Expectations of consumers are formed on the basis of their existing experience and information derived from direct (personal) or mass (non-personal) information channels. On its basis the consumers choose the manufacturer and after their service provision compare their understanding of the service provided to their expectations. If the idea of the service provided does not meet expectations, customers lose to the company any interest, but if meets or exceeds their expectations, they're turning to this service provider. Customer is always striving for a matching price and quality of services. It should be noted that, as a rule, the buyer of services rarely complains about her higher price than the buyer of materialized product. If he considers the price too high, he simply refuses to buy this service. Dissatisfaction with the service tends to large losses in market share. Therefore, the service provider must know as accurately as possible the needs and expectations of their target consumers.

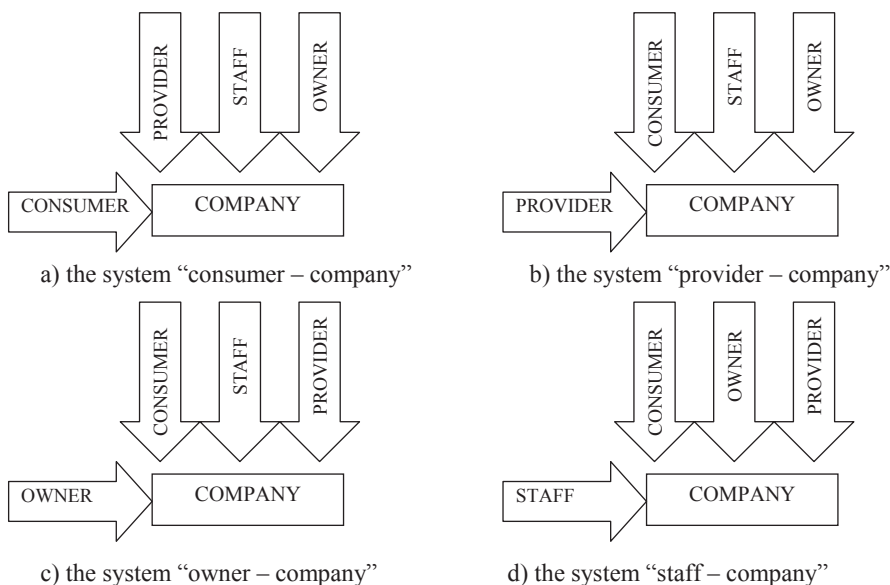
The main goal of any organization is a long-term balanced satisfaction of the interests not only of the final users, but also stakeholders of the enterprise. Often these include customers, suppliers, staff, owners and society.

In Section 3.3.7 of ISO 9000:2008 stakeholder is understood as a person or a group of individuals interested in performance or success of organization.

The concept of the right activities and, moreover, the success is different in each stakeholder. Each of these participants pursues its own goals.

From the standpoint of the consumer company is a manufacturer. It is necessary to build a mutually beneficial relationship with it. Thus user is not interested in the internal problems of organization, an outcome is important for him. The consumer believes that the service producer have established good working relationships with its suppliers, employees, owners and society (Fig. 1).

Fig. 1. Company in terms of stakeholders [2]



For vendor the company providing services is a consumer. Its demands should be performed and needs should be met. But this supplier is generally believed that the service producer as a consumer has a problem with their customers, employees, owners and society (Fig. 1b).

For the owner the company can be organized in different ways: as a property complex, as a legal entity, as equity. In any of them, he charges the enterprise.

When he needs to interact with the company, it appears to him as a working group, staff. And the owner of this interaction has to decide on the required level of competence, and improve staff satisfaction and engagement. This owner rightly

believes that it is his issue, how to build cooperation with other companies, customers, suppliers and society (Fig. 1c).

In terms of personnel for the word „company” may be many different realities: a source of existence, interesting work, good staff, opportunities for professional growth and so on. But in this case organization faces the worker when it delivers its needs. In case of conflict all the other qualities recede into the background and the organization for the employee is the owner who has to ensure normal working conditions and decent pay. Thus staff is inclined to believe that forming relationships with customers, suppliers, owners and society is an enterprise task (Fig. 1g).

Society as a concerned party is represented in a variety of organizations and government agencies that enterprise or results of its operations have an impact. The main objective of the society is to regulate the enterprise in the field of health and safety and environmental protection.

The attitude of the stakeholders determines the place of the enterprise on the market. That relationship among the stakeholders are related to the quality of products or services.

In the model of stakeholders the driving force of business and the mechanism of their movement come to the forefront. That is, the parties do not have the duty to be interested in. Customers, suppliers, owners (investors), staff and society can be indifferent or even negative to a particular company. According to international standards of quality management, a business that wants a long time to be in the market should by all means seek commitment of stakeholders, ensuring continuous improvement of satisfaction.

Ideally, the company operates in a harmonious environment of stakeholders. That is this interest is balanced and does not create distortions. It is important to note that stakeholders are the only source of „life force” for the company. And if any interest is not sufficient, it has to compensate by the other [3].

In order to harmonize and satisfy the interests of all stakeholders for public utility „Lutskvodokanal” we developed a matrix of interconnections of customer’s requirements, public, staff and owners of the company by the method as described above.

Tab. 3. Matrix of Interconnections of Stakeholders' of CE "Lutskvodokanal" Requirements

Requirements of consumers and society	Water Quality	24h delivery	Quality of equipment for water supply	Affordable price	Execution of contract	Flexibility of service	Integrity of services	Confidence in the Company	Highly qualified staff	Compliance with legislation
Requirements of staff and owners										
Wage increases	°	°			•	•	•	•	•	•
Staff Motivating	°	•			•	•	•		•	•
Schedule		•			•	•	•			
Profession and career	•	°	•	°	•	•	•	•	•	•
Social package								•	•	
Work security	•				•		°	•	•	•
Increase the volume of work	°	°		°	°	°	°			
Cost Reduction	°	°	°	•	°	°	°	•	°	
The growth of profits	•	°	°	°	°	°	°		°	

Thus, the activities and success of the organization are determined by the attitude of stakeholders to it. That is, the activities of the company must include specific mechanisms for monitoring and meeting the needs of stakeholders. To monitor the degree of satisfaction, it is necessary first to identify the needs and expectations of each stakeholder group.

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Criteria and key components of indicators of the conceptual principles of the enterprises monitoring

Kryteria i kluczowe składowe indyktorów koncepcyjnych podstaw monitoringu przedsiębiorstw

Igor Chulipa

Easteuropean National University named by Lesya Ukrainka (Ukraine, Lutsk)

Summary

The paper investigates and analyzes the conceptual basis of the enterprise monitoring system, criteria and key elements of monitoring systems functioning, methods and feasibility of the integral index calculation of financial and economic viability, the impact of unpredictable long-term global economic environment and its uncertainty in the composition of the indexes included in the monitoring system.

Streszczenie

Opracowanie zawiera badanie i analizę teoretycznych podstaw systemu monitorowania przedsiębiorstw, kryteriów i kluczowych elementów systemu monitorowania wydajności, a także metod i możliwości obliczenia integralnego wskaźnika rentowności finansowej i ekonomicznej oraz wpływu nieprzewidywalnego w długim terminie globalnego otoczenia gospodarczego i jego niepewności na zestaw indeksów zawartych w systemie monitorowania.

Keywords: monitoring, business activity, financial and economic indexes, integral factor of functioning criteria, enterprise sustainability, the economic environment

Słowa kluczowe: monitoring, działalność gospodarcza, finansowe i gospodarcze wskaźniki, integralne kryteria wydajności czynników, zrównoważony rozwój przedsiębiorstwa, otoczenie gospodarcze

Introduction. Early detection, analysis and exemplification of company problematic aspects is the main purpose of enterprise monitoring. However, one even perfect and reliable statement of deviations from the expected results of the monitoring system is not enough to describe the system as effective one; this component of information and analytical support of management should interpret by its methods the results and form meaningful conclusions, coordinated with the strategy of the company development in the context of general trends in the economy. That's why, to build a reliable monitoring system it is necessary at first to supply the high quality of its basic elements – evaluation criteria, selection and composition indicators consistency, the format of measuring process, method of study results and their adequate interpretation.

The main material. Criterion is one of the most important in the theory of effectiveness evaluation and therefore it is considered as the sign, the means of judgment, under which the assessment is made, a measurement and evaluation factor that determines the basic approaches to measuring effectiveness. To perform this function of the general characteristics of the functioning efficiency criterion should be an integral feature that displays the most significant results of the decision impact on the main goal of the company. Some aspects are characterized by the economic indicator – level measuring and extent of constituents of evaluated effectiveness. A common approach to the conceptual basis of forming of evaluation system of the enterprise status and activity provides use of a certain sequence – from the criteria through the summary indexes to individual indexes. It is assumed that the general indexes are characterized by a certain level of abstraction and universality, and certain indicators are the meaningful characteristics.

The obvious fact is that the monitoring is able to fulfil its functions only with the help of coordinated and coherent economic indexes, which represent the absolute and relative numerical properties of objects, phenomena and processes of business. An important condition of economic indicators monitoring is their relationship, their possibility to reflect dynamic of phenomena and processes, to show trends of development and causal laws. Herewith the criteria characterization of the economic indicator is the kind of measure of assessment upon which opinion is formed about the value or meaning of a particular index in the overall system.

To provide management with necessary information that would be sufficient and productive to support effective management decisions, first of all, is to select relevant economic indexes to describe the enterprise on a certain (specific) market segment. From this disposition such system of monitoring is described as the operational database of events and processes that are described sufficiently by small number of key, particularly important indexes. Minimum is proposed for operative diagnosis of the object of study.

There appears the problem of selection of indexes for integrated assessment of all the most essential aspect of a multifaceted enterprise activity and diagnose of

weaknesses in the work, which generally characterize the level of enterprise efficiency. The common vector of their orientation, the structure of generalizing and individual indexes are necessary conditions for the formation of indexes in the monitoring system of the enterprise; the formation of the indicative component for an enterprise is the key to the effectiveness of this system in enterprise management.

Key indicative components of monitoring system are formed on the basis of formal financial, economic and statistical data using the methods of factor analysis, which allows on the basis of relationships between parameters to detect generalized characteristics and trends of the studied process. In addition, it is supposed that the task of factor analysis is reduction of little informed or, as they are described „noise” variables, that is the reduction of data [1, p.86]. In many studies these indexes are considered to be entropic part, which acts as the measure of disorder in any system. For this, the authors propose to carry out in tracking trends of internal and external efficiency “on the basis of economic indicators to reduce entropy” for reliability in analytical and diagnostic systems [2]. These figures emphasize the advantages of formal indexes over peer review.

In either variant qualitative characteristic of indexes which are entered both into the monitoring, and to any other analytical system has always played a pivotal role. For monitoring system input information (internal and external, formalized and non-formalized) in fact notes the efficiency of this analytical and forecasting system, and “the more investigated the influence of factors on the value of the effective rate, the more accurate forecasting results of this index” [3, p. 102].

Tools of analytical base of aggregation of numerical indices are excessively broad, and that’s why allow to construct a large number of multiform synthetic parameters (coefficients). It can be noted that in many cases “the same factors are often called in different ways, so in literature there are many terms, although in reality they are much less” [4, p. 50].

That information from the full range of background information is important which can really increase the effectiveness of management decisions. To outline the importance of the quality characteristics of aggregates, problematic definitions of the various dimensions of quality, one can note the embedded IMF “Data Quality Assurance Framework”. This system aims to evaluate the quality and quality measurement framework of statistical information [5]. On the level of monitoring system of the certain enterprise this problem is offered to solve in different ways. For example, by the studying of design methodology of financial monitoring system [6, p. 89], the task of information filtering is proposed to solve on the basis of heuristic filter design for tracking incorrect data or incorrect physical or mathematical dimension.

Besides of qualitative characteristics, the set of indexes largely depends on the specific of economics, organizational structure and economic ties with market partners, the level of industry competition, etc. Therefore, monitoring-diagnostic

system of the enterprise is often described as a “creative process, variable in content, which is carried out by various analytical techniques” [7, p. 34]. Another important area of quality selection of indexes is their context with the strategic goals of the enterprise (gaining of market segment, capitalization asset, profitability or elementary avoiding of bankruptcy or ability to function).

Company management considers its function as effective decisions based on an analysis of indexes and key indicators formed on the enterprise by information-analytical systems including the monitoring. The above requires from the system developing of several alternatives, and they depend on the factors which take into account the influence dynamic factors on the of the company indexes. In national practice, “for the study of information in the enterprise, there exists a set of methods and tools which allow you to analyze only from the point of view of “flat perception”, while the modern conditions of enterprises operating require to perceive information in more complex space” [8, p. 121]. Ability of monitoring system in manoeuvring by the indicative component of indexes company activity makes it leaner and more practical than other systems.

In general, most authors mainly comply with terms that it is feasible to limit array of key indexes that should be investigated to support management decisions regarding the efficient operation of the enterprise, that is “it is necessary to determine the optimal number of groups of financial indicators (the least) and to calculate their value” [9, p. 125]. It is supposed that this format provides the greatest efficiency and effectiveness of measures to correct current activities, taking into consideration the presence of a stochastic relationship between selected factors and their impact on the achievement of targets. The choice of the relevant factors and effectiveness indexes functioning is individual for each company, even within the engineering industry. Although sometimes there is the opposite point of view. However, our study of engineering companies makes for us possible to have practical conclusion – the key indicators for each of these businesses are different.

Exploring the development of organizational and methodological principles of monitoring O. H. Penkova concludes that the monitoring as a management tool provides a comprehensive assessment and prediction direction of the enterprise for stable system of indexes [10, p. 51]. Implementation of this requirement is justified by its focus on further analysis and comparability of results. Without any doubt, this approach to teaching the monitoring methodological principles provides the standardization of information set, ease of finding and fixing a set of data and gives to the monitoring properties of information process. However, from our point of view, such proposed blocked monitoring system with its extremely specific format and given probabilistic cause-effect phenomena, on the contrary should be considered as the unresolved part of problem of monitoring systems conceptual basic. In addition, the perception of this approach to the development

of monitoring enterprise system inevitably leads to false, from our point of view, targeting the conceptual framework of constructing a monitoring theory.

Such format for a particular enterprise may prerequisite skewed depth of different factors representation which are important namely for it and shift focus attention on one, and thus weakening of control over the other (probably crucial for this business) aspects of the business. The undeniable fact is that the structured indexes will enhance the function of the comparison of the industry enterprises, but obviously weaken its effectiveness for direct management by a particular company. Here we make a comment that it concerns the enterprise monitoring system, but not forming of analytical information at the corporate level. From this position we share the conclusion of this thesis made by E.E. Ionin, in which “standardized calculation of important analytical indexes would allow to statistical authorities through processing and synthesis of information to give it in the context of companies, industries, and also in regions and across the state” [11, p. 152].

Composite indicator formed on this principle (independently whether it is calculated on the basis of a linear combination of indexes or equilibrium approach or any other complex method) has primarily pre-prescribed weight of each component. However, the key factors that influence the effectiveness of each entity are not exactly alike. That's why M. Klements and D. Hendry emphasize that indicator is any variable that has a reliable informative about another variable which is interested in [12, s. 207]. In our case there is mutual interdependence and direct influence of economic indexes of a particular company taking into consideration its characteristics, economic conditions, market conditions and a number of other social, economic and financial factors. By and large monitoring system needs to consider the “environmental” and “infrastructure” parameters.

Formation of total integrated index of effectiveness estimation is undoubtedly one of the most important tasks both of monitoring and general information system in general. In the scientific work [13, p. 9] by the analysis of evaluation methods of managing by the effective functioning of the company there noted such their disadvantages as lack of general integral index, which simplifies the management analysis and evaluation and at the same time it is pointed to the incomplete coverage of all the factors affecting the dynamics of the enterprise activity.

Sure construction of enterprise monitoring system requires balancing on a very thin and sensitive facet of simplicity and comprehensiveness. Trying to combine these two aspects sometimes one can find in the literature conclusions about multi-objective approach to effectiveness evaluation, and this in fact is mixing of the criteria category of and efficiency indicators [14, p. 47]. Offered information aggregation methods can be supported into the monitoring system which provide “calculating of aggregate (total) indexes for other modules of monitoring mechanism of the financial and economic situation of the company” [6, p. 90].

For those types of monitoring, during which the indirect dimension takes place, including monitoring of informal and unstable in their nature economic activity indexes of engineering companies, a major problem is to ensure the establishment of evaluation criteria, methodical process measurement algorithm, the correction results and their adequate interpretation. The modern business situation is changing almost every day, and the dynamic, developed on this basis, the indicative indexes allow to the management staff to pay attention to those activity aspects, which require surgical intervention.

In almost unpredictable for long term global economic environment and its uncertainty, each negative course of action effect may have several variants, which cannot be evaluated on the basis of the mere probability. In our view, one can eliminate the significant degree of uncertainty by using the formation of several alternative scenarios: an increase in information reduces uncertainty (entropy) of monitoring systems. We adhere to the position that the enterprise monitoring system should adapt to the specific conditions and its original product as part of the overall information system should correspond the criteria of relevance and adequacy to real economy displays. Experts, who study the state and prospects of development of the information-analytical system in this context, note that "given examples of monitoring and even of monitoring systems indicate that they will continue to be created and develop, and its methodology must be improved..." [15, p. 25].

Indexes that are entered into the monitoring system should cover not only the activity characteristics of the particular company directly, but also the characteristics of the industry, market conjuncture, current and expected situation about credit and investment resources and so on. On this basis generalized direction of monitoring development as "system building including monitoring, assessment and prediction of the environment and its impact on the activities of the company due to changes in economic conditions" are formed [7].

Economic situation (set of economic conditions, relationships, situations) can significantly affect the implementation of planned programs, it is except of this, showing dynamically not always predictable behaviour objects and phenomena set. Internal rationalism and external conditions in its entirety and synergies influence the efficiency index of building enterprise functioning. At present, under the terms of efficiency we talk not only about income increase, but primarily of financial, economic and productive capacity of the enterprise as the ability of the company to future functioning and the value of its investment properties. Criterion characteristics of this index is the most important indicator for external contractors (investors and creditors), and therefore should compose the monitoring basis of financial and economic indexes of building enterprise.

In the research of T.N. Malykhina on the basis of empirical facts points out that in the analysis the factors of financial position are "priority", by the long-term one – factors of effectiveness significantly increase [16, p. 5]. This approach is ap-

proprate for today's world economic practice, and therefore monitoring systems tend to expand their base and base projections by the forecasting and expected indexes as to the development the national economy (exchange rates, inflation levels, etc.). As, for example, competitiveness index (GCI), which is characterized by "a useful tool in the analysis of key macroeconomic and of institutional elements" [17, p. 31]. This index describes the ability of the national economy to achieve stability or economic growth in the medium term. The company as a "cell in the body of the market environment" is functionally able to operate only in terms of the efficiency equally to the state of social and economic environment. Modern current practice of enterprise functioning additionally confirmed lack of analysis approaches that too closed on the indicative basis of the enterprise index and industry analysts.

Researches of the published conceptual frameworks and methodological bases, declared principles and approaches to organizational structure of monitoring economic indexes demonstrate their diversity and differences. From the standpoint of the tasks practical services company, providing indexes monitoring of ongoing activities, this process is the controlling and balancing of a large number of parameters including those that are unique to a particular company – regional character, convenient location relatively to customers and suppliers, infrastructure positioning of firms and so on. Tools of analytical indicators aggregating basis are extremely wide, including even many intuitive indicators. That's why, it is announced that it's impossible to bring all their multiplicity in any method, but to use only those that truly have an impact on the effectiveness of management decisions: "For effective company management it is not enough to have "dashboard" which represents the performance in a convenient form, quickly and accurately. It is important that these indicators were effective "[18, p. 26].

In a relatively stable economy economic standardized indicators format usually provides satisfactory information needs of management, but in an unstable socio-economic environment even properly chosen parameters are not guarantees of reliable and relevant information. In addition, differences in methodological approaches and the large number of diverse indicators usually lead to some difficulties and differences in efforts to establish the financial position of the company. The calculations in this case are subjective in nature [19, p. 116].

In the process of monitoring most of the indexes are worked over on the basis of criteria and standards, which use is extremely difficult because many of criterion values within the industry are not formed: "The presence of normative values facilitates the assessment of the company current situation, what is permanent information to determine their competitive position" [20, p. 92]. To convert the primary indexes of the enterprise in their relative values they are compared with baseline (comparison base) ones, which are the average industry, competing businesses indexes or business leader (standard) on the industry segment, as well as indicators

of the same company for periods of its past activity. Herewith “to transfer parameters in relative values it is necessary to use a certain points-scale” [21, p. 48].

Usually even the general picture of formalized enterprise performance is heterogeneous – with some indexes combinations activity effectiveness can be characterized by positive results (comparatively to given in the literature and recommended state standards), by others – on the contrary: “A major disadvantage is the lack of normative values of the most used coefficients and the fact that changes in the dynamics of the coefficient cannot be interpreted properly, because both the numerator and denominator of any coefficient varies in time” [22, s. 138]. Herewith it is necessary to take into account the fact that “any extrapolation model will give reliable results only by constant conditions of the objects functioning that can not but affect both the coefficients of the model and its critical importance” [9, p. 128].

In many studies the attention is focused on the index criteria characteristic, problematic aspects of their installation, proving and justifying the need to develop industry standard and criterion values of meaning characteristics of object certain evaluation. For example, in M. V. Makarenko’ thesis who explores the efficient functioning of engineering companies, it is justified “the need to select the general criterion of the effective enterprise functioning” [13, p. 9].

Effective performance of enterprises in the real economy conditions largely depends on the fact how reliably an overview and shorter perspective of activity conditions and functioning, that is reliability of prediction, based on greater or lesser degree of analysis of the current indexes and activity indicators of the company, are provided. So, for example, quite often the idea is justified that “organizational and methodological basis, formed by the diagnostics results of potential of financial and economic stability is the basis for the formation and choice of sustainable development financial strategy” [23, p. 346].

During the monitoring of heterogeneous informal economic indexes it is necessary to obtain the information, represented concerning the various objects, such as enterprise in a whole and its separate institutions (ratio of the system and part of the system). However, because of the limited information of separate indexes it is necessary to use metrics that allow not only quantitatively to characterize and estimate the situation, but also to reveal its occurrence reasons, as well as to lead structural and logical analysis of factors that influence [24, p. 84]. Thus, we can conclude that the indicative framework of indexes and criteria is complex, and the monitoring is characterized by a multifactor process that has its own characteristics and trends, conditioned by institutional factors.

Therefore in the monitoring system performance activity indexes should be considered through two groups: general business indexes of activity and financial condition; specific indicators which have clearly defined industry (specialized) character. In this combination the factor of informing system: „The best place of taking rates in diagnosed environment is a place (point), where the measure-

ment value gives the highest information" [24, p. 80]. Much of the formation in a unified system of indexes is provided by the standardized forms of financial statement on the basis of which diverse factors are defined. In the modern theory and practice of condition and activity analysis of the enterprise has more than two hundred of comparative analytical indexes, which can be calculated in terms of financial reporting.

The question of various financial ratios use in analytical systems has twofold. On the one hand, to compare the industry, they are considered to be a valuable tool and for individual companies they are described as "... guiding light for the manager in the business world" [4, p. 4], on the other - the coefficient is "... a tool that was mostly over-rated and is most frequently abused" [11, p. 61]. In this regard, U. Brigham noted that "ratio analysis held mechanically and thoughtlessly, is just dangerous, however, on the conditions of its thoughtful application it is able to give a thorough understanding of the company activity" [26, p. 260]. In any case "analysis starts not with the coefficients, but with understanding" [27, s.244], that is financial ratios give only a quantitative expression of what is already obvious.

Quite a simple process of calculation of financial ratios, which also doesn't require fundamental economic knowledge (usually filed under demonstrative professionalism), the availability of the results of such analysis leads to their widespread use by management systems. By entering coefficient method in the company monitoring system, as a tool of comparative analysis, we must first prevent direct comparison of the so-called recommended meanings (the way of the standards producing is unknown). In this case, both in theory and in application layer clear and categorical conclusion is usually made, that the excess (reduce) of values characterizes the processes of enterprise management resources as wasteful and inefficient ones.

It concerns not only the comparative characteristics of the industry or the economy, but also, based on changing conditions of the overall economic environment, immediate changes dynamic of these coefficient in the enterprise. Using the results of the monitoring system of coefficient method should not be considered the final stage of the analytical process, but mostly by the basis of further diagnostic characteristics of the evaluated object.

Approach of the direct use of coefficient method in the monitoring system, in our opinion, hides the danger of getting of a distorted index (or at least complicated economic interpretation) primarily due to the unsolved question of index selection that really characterize components of future economic effectiveness in today's complex conditions of enterprise functioning. Nowadays solving of this issue is subjective, that is it is solved by a financial analyst through his view on the importance of an index. This approach is becoming more and more customary for current practice, and that's why it is naturally considered "a kind of destabilizing factor that only strengthens the subjectivity of the analyst' opinions, i.e. his ten-

dency to consider a certain parameter main or take into consideration in lesser extent” [19, p. 114].

In modern practice of financial and economic analysis and decision-making on the basis of the results the financial ratios that are connected with the market management mechanisms (financial stability, business activities, etc.), are used. Besides, these financial ratios are the basis for constructing of different prediction models of possible threat or loss of solvency, violation of financial balance or enterprise bankruptcy (Altman's, Tafler's, Lis' models etc.). These models differ substantially by almost all the parameters – the number and content of financial ratios, adjustment values to each of them and therefore by the end result.

In national economic literature there is a number of examples where direct use of foreign models and methods without the necessary adaptation to the peculiarities of the national economy creates distortions of the essence of analytical indexes. From the formal position there is no contradiction between the use of a method of a certain index calculating, but in terms of content there are significant differences between them.

Conclusions. In the basis of any analytical and predictive method cost characteristics of assets is put, – one of the most important categories of financial management, management tools which were explored by many famous scientists. Thus the essence of the assets characteristics in the realization of short-term and long-term enterprise tasks in the management models are usually made on the basis of the accounting system (actual cost). Such approaches to asset management are criticized by many prominent financial analysts. As an example, we can cite the statement of the famous national scientist I.O. Blanc, who, noting the specific unsolved problems in the management theory, put need at first of development of “principles of estimation of the real value of total assets”. We follow the position that the introduction of any single or complex (synthetic) parameters, connected with assets estimated by the “historical” value to the monitoring system, leads to the distortion both of financial status characteristics and level of efficiency. Transferring of assets into “format resources,” bringing their value to the current, one can probably consider the main tasks of the initial phase of this subject area monitoring process.

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Theoretical bases of control system forming by profits and charges of households of Ukraine

Teoretyczne podstawy tworzenia systemu kontroli przychodów i wydatków gospodarstw domowych na Ukrainie

L. G. Lipuch, S. V. Mostenec

Lesya Ukrainka Eastern European National University

Summary

In this article the authors investigated the nature of households, their income and expenses. It is given the definition of system of household income and expenses management. The structural components of the given system are defined. The necessity of keeping family budget by households of Ukraine. Purpose of this study is to examine the theoretical and methodological principles of formation of the households income and expenses survey of Ukraine.

Streszczenie

W artykule tym autorzy badają istotę gospodarstwa domowego, jego dochody i wydatki. Przedstawiona jest definicja zarządzania systemem dochodów i wydatków gospodarstwa domowego. Zdefiniowane są strukturalne składniki systemu. Jest potrzeba prowadzenia budżetów rodzinnych przez gospodarstwa domowe na Ukrainie. Celem tego studium jest określenie teoretycznych i metodologicznych podstaw tworzenia przeglądu dochodów i wydatków gospodarstw domowych na Ukrainie.

Keywords: household, income, expenses, budget, management, system

Słowa kluczowe: gospodarstwo domowe, dochód, wydatki, budżet, zarządzanie, system

Relevance of research

One of the major problems facing Ukrainian society in transformational change is the need to review and change strategic approaches to the interaction between the state and citizens, because these relations determine the degree of development of the country, the level of democracy and prosperity. The dialectic relationship between the state and people – is the perennial problem which is being solved quite specifically and ambiguously at every historical stage of development of civilization and in every country.

With the transition to a market economy of Ukraine to management principles it is necessary to solve many critical problems concerning statistical observation of households, including the study of their income and expenditure. Households in the course of their economic activities receive some income, which serve as an important basis for the characteristics of living standards in Ukraine. Statistical research of households charges gives the opportunity to estimate the direction of charges rationalization of consumer and non-consumer nature in the terms of the economic instability, and accordingly to find additional reserves of financial resources. It is impossible to analyze of householding without the investigation of nature, motives and forms of their savings.

1. The interpretation of the essence of households

Households as a unique socio-economic formation in which of various aspects of human life are concentrated, is the basis of any society. Namely households play an important role in the system of the economic relations, what is predefined by several reasons. Firstly households actively participate in the economic cycle resources as separate and independent entities with their own needs and interests. With the basic factors of production (labor, capital, land, enterprise talent), they pass them in the use of entities that carry out further effective use of these resources. Secondly households' demand for various goods and services is one of the main components of aggregate demand for final consumer goods. Thirdly, the income which is not used by household members during the current period, transforms into savings and under favourable conditions can be a powerful source of economic growth.

Household is the primary economic unit of economy functioning. The importance of household behaviour studies is emphasized by the increasing of attention both domestic and foreign researchers to it.

It is necessary to find out the nature of the origin of the term "household" because it is a unique socio-economic formation, in which all aspects of human life: biological, social, economic ones, are concentrated.

For the first time the concept of “household” was opened in the Xenophon’s treatise “«Household» [1], in which the household was considered as a combination of traditional domestic work and conduction of natural farming. It is necessary to notice that in our days this concept in the narrow sense means the service of the family members, conduction of housework, natural production.

In the economic literature one can find different interpretations of notion household, but the most widely used there’s considered a set of physical units – residents with common economic interests, functions, life and sources of funding.

At the exposition of a concept “household” certain authors and also legislator rely primarily on the functions which household performs.

For example legislator making Ukrainian census population in 2001, in the Law of Ukraine “About Ukrainian population census” of October 19, 2000 fastened its following definition “... – a set of people (or one person), who live together in the same living room (his part), have common household (share the cost of housing, food, etc.), fully or partly unite and spend money. These individuals may be relatives or not be in any of these relationships or be both in these and those relations” [2].

Demographic Encyclopedic Dictionary defines a household as “a set of participants who are the members of the social-economic centre, which connects people by relations which appear during the organizing of their compatible life (general household, cohabitation, etc.)” [3]. As you can see this definition has a lot to do with those which is given in the Law of Ukraine “About Ukrainian population census in 2001”. One must note that this definition reveals the essence of the household from a side of the behaviour of people who live together, but its role is not disclosed in economic processes. As T. Kizyma marks, primarily it is explained by the fact that under the conditions of administrative-command economy there were no forms of ownership, except national, so nobody talked about business or similar activities of household members [4].

V. G. Fedorenko in the book “Political Economy” suggests two separate household definition. Due to the first one household is “an economic subjects object that consists of one or more individuals who hold business activities together and have a common budget.” The second definition, “household of the country is a totality of all private households, whose activity are is aimed at the satisfaction of their own needs” [5].

The authors of the book “Economics: Political Economy” edited by S. George give the definition of “household” more extended and detailed. According to their interpretation the household includes an economic unit, which consists of one or more persons who have the resources, supplies the economy by them and uses received income to purchase goods and to render services that satisfy material needs of its members. The authors in this definition distinguish the most essential functions of household (procurement, consumer) and the main aim of its activi-

ties (the needs of all members) is defined. However, in this definition, again it is, not emphasized on common life, which, in our opinion, is an important characteristic of the household as of an economic unit [6].

A. M. Olejnik treats the household as a group of people, united by common task of of human capital reproduction, location, budget and family relations. At the heart of the household there are property relations, which provide that the right of control over the general economic activities belong to one of its members - chapter of the families, while the main role in the household is given to routine and predictable actions [7].

In terms of national accounts households, seem to be one of the five institutional sectors of the national economy (along with non-financial and financial corporations, general government and non-profit organizations). System of National Accounts uses the definition of the household as a small group of people living in one room, in whole or in part unite their income and property, jointly consume certain types of goods and services.

According to the UNO system of national accounts households include also home workers and the population, who are in different groups: inmates of children's homes and boarding schools, servicemen, disabled people in nursing homes and others. People who permanently or for a long time live in various institutions and establishments: members of religious denominations (in societies, monasteries), hospital patients, persons retained in prisons, persons residing in senior institutions, orphanages and others, also belong to this institutional unit [8]. However we can reckon such persons to the household only for terms of unification and joint consumption over a long period of time (staff and other persons who perform certain business functions for a fee are not included to the composition of the household).

So, summing up the above and taking into account the fragments of certain works of domestic and foreign scientists, as well as recommendations of the relevant international organizations we will give our own definition of the term "household", which, in our opinion, more fully disclose the essence of the concept. We consider that the household is one or more persons who live separately in the same room, conduct together one way of life and consume together products of our own production, make economically grounded decisions for the household.

2. Specific features of households

Functioning of a modern household as an important institution of the market economy is characterized by a number of specific features:

1. at first, the feature of household is the presence of both formal and informal relationships. Informal relations remain dominant in today's economically relations;

2. secondly, the activities of the household, is characterized by a certain conservatism which is associated with psychological propensity of man to create a stable environment around him, which is designed to withstand the inevitable stress, provoked by economic and political instability. Namely conservatism of a household provides predictability of their behaviour in any economic system. Moreover, namely thanks to this "routine" this institution is capable to self-destruct even by adverse conditions. At the same time, conservatism of households causes sluggishness (inertia) of their adaptation to the complex of institutional reforms that accompany processes of market transformation;
3. thirdly, an important feature of households activity in a market is a focus on the maximal diversification of income sources. By irregular income person seeks simultaneously embrace all possible areas and options;

3. The control system of income and expenses of households

In a market management by household expenses and income economy plays an important role as it gives opportunity to systematize the most important aspects of household.

In the most general terms "to manage" means "to direct the course of some process, to influence the development, status of something" [1]. Encyclopaedias interpret term "management" as "a conscious purposeful influence of subjects (economic, social, political and other relations) on individuals, work groups and the wider communities, as well as on economic objects to achieve by these subjects aims and providing stability and dynamic development of managed objects" [3].

Thus management by households expenses and income is a process of managing by formation and usage of financial resources of households using specific techniques and methods.

For household, objects of management are total income and total expenses (expenditure) of households. We must note that it is necessary to separate clearly the terms "income" and "wealth". Both the first and second concepts determine the purchasing power of household. However, if the income shows how much the purchasing power of the household during determined period of time increased, the wealth determines the volume of purchasing power at the moment. So in terms "stocks – flows" wealth is a stock, and income is a flow. The combined wealth of the household can take three basic forms: physical wealth (which includes land, house, apartment, car, furniture, artworks jewellery and other consumer goods), financial wealth (which acquires the material embodiment in stocks, bonds, funds for accounts in banks, available cash, etc.) human capital (that is wealth, "materialized" in the person as a result of her upbringing, education and expe-

rience (so-called accumulated benefit) and also the benefit derived from nature (talent, memory reaction, physical strength, etc.)). Each of these types of wealth is a source of a particular income for the owner, and during the individuals life cycle the particles of physical and financial assets and human capital in total wealth have different dynamics.

Management subjects are members of the household who engage the overall management of its funds, and also the state represented by the relevant financial authorities, who indirectly influence the processes of income formation and expenditure realization of households.

4. Necessity and task of management of the household income and expenses

The main tasks of management by the household income and expenses include [4]:

- realization and a gradual increase of the household economic potential;
- ensuring of profitability maximization of its assets;
- efficient implementation of current expenses;
- effective formation of savings and their subsequent transformation into investment;
- ensuring minimization of risks.

5. Strategic goals and strategy of management of the household income and expenses

Achieving the goals and tasks of household in the area income and expenses will help to develop strategy. Strategic management provides for forecasting of trends in economic activity and modelling of parameters household economic development on a prospect, taking into account to reflect changes of environmental factors and state of affairs on the financial market. Households must agree opportunities to achieve and outline the terms of realization of this goal to form strategic objectives (to determine the amount, the optimal structure and efficient use of existing assets and to estimate the acceptable level of risks).

Providing of strategic objectives in the income and expenses management should provide tactical management or development of tactical aims. Main tactical task is to choose the most optimal financial solution and the most appropriate in a given situation management tools by income and expenses of the household. Tactical management as a rule covers the operational management of available cash, is directed on the ensuring and maintaining of household permanent solvency and efficient use of funds.

Developing of a proper strategy and tactics in the households income and expenses management requires to find out their basic features.

So, on the specific stages of individuals life cycle there is a specific of control his personal finances that will definitely affect on the income and expenses management of the household on the whole. For example, on the first stage of the life cycle human capital of a concrete is formed due to getting of education and elementary skills, so the main task of management at this stage is to mobilize financial resources as a rule to pay for education. Management on the second stage of the life cycle, connected with work, requires to maximize the incoming of money capital, formation of savings and effective management by investment portfolio. Management on the third stage of the life cycle is to maximize incoming under conditions of realization of previously accumulated assets in order to maintain current usage in pre-pension and pension period.

6. Methods of household income and expenses managing

The main methods of household income and expenses managing from micro-level positions, the most important are is accounting, planning, analysis and control of members of the household's current income and expenses, as well as the formation of savings.

Each of these methods is realized using specific tools. For example, the account tool can be the development and maintenance of revenues, expenses, assets, investments, loans, interest payments accounts, etc. (it is necessary to remember that more detailed the plans, more accurate information is available for analysis).

Planning in households is advisable to use first of all with the help of such tools as plan-forecast of economic aims and household budget.

The main tools of economic analysis in the sphere of household income and expenses management of may be the determining of debt factor and liquidity ratio, the calculation of the households consumer index and its comparison with the consumer price index, as well as comparison of alternative forms of getting loans and entering into insurance contracts, matching the most optimal and profitable investment variants of inlaying currently available funds and so on.

We consider that the process of household income and expenses management should be begun with the development and maintenance of income accounts, expenses, assets and investments. The main accounting items in this area may be current income (by certain subarticles: salaries, income from personal farming, income property from renting, income from business and self-employment, income from securities, deposits in banks, etc.) and current expenses (by certain subarticles: food, payment for apartment, buying of clothes and shoes, transport expenses, payment of insurance premiums, etc.) as well as the accounts in credit institutions, investment in securities, real estate, insurance policies, credit etc. For efficient housekeeping, in our opinion, one must also make records of available property.

Central place in the system of household income and expenses management is occupied by planning, preparation and execution of the family budget, and also monitoring its implementation.

In the current economic realities family budget planning is extremely necessary, especially for those households who want not just “to go with the flow” but to affect consciously on many factors that determine the quality of their lives. In economically developed countries, private economic planning has become an integral feature of modern life (over budget planning and of their own money in these countries regularly about 60-70% of population think management). In a civilized society it is accepted to think over optimizing income and expenses, to discuss the possibility of savings and investment, to exchange by experience of consumer spending rationalization. [9]

In developing countries, the situation is significantly different. For example, in Russia “the third part of citizens does not plan family budget, another 37%, if they are planning, then for a month or less ahead. That is more than two thirds of people in general do not think about planning their personal budget. Only 20% think a few months ahead. A number of people who think over personal money management within six months (8%), a year (4 %) and more than a year (3%) is close to the statistical error “[10].

Empirical observations prove that in Ukraine the importance of economic planning is also realized by relatively small part of the population, even in the near future the situation, we believe, will dramatically change for the better. In order to start the household budgeting, in our opinion, one should first plan forecast of economic aims as a tool of medium-term planning in the sphere of household income and expenses management (Table 1). The main purpose of the plan-forecast is the timing of significant economic costs, what will ensure effective use of the resources and optimize the involvement of external sources [56].

Tab. 1. Street forecast of household economic objectives for three years

Objectives	Years		
	first	second	third
Repayment of previously obtained a bank loan for the purchase of furniture	X		
Vacation	X		
Buying a car		X	
Construction of holiday home		X	
Children fees in higher education			X
Repair of apartments			X

Source: [4]

7. Drafting of households budget

However, the most important step in managing by income and expenses is drafting household budget for the planning period in tabular form in which household members group and distribute their income and expenses and deduce the difference (residue) (see Table 2).

The main purpose of budgeting is detailing of the household income and expenses to control the flow of funds and their effective spending. This will avoid the temporary lack of funds as a result of the high costs and delays of revenue receipts. And, paradoxically, but the smaller amount of money a household has, the more important for him to compile a detailed budget.

The household budget accumulates individual income of working family members, and also other income by which both general household needs and personal needs of all its members are covered. In other words, within the household budget redistribution of income among all members of the families take place, regardless of who is the main provider of funds. Therefore, in our opinion, considering the budget of the household, it is more correct to talk about the budget within a single family budget, as each member of the household can lead individual account of his income and expenses no matter what model of financial management is characteristic for this household.

Tab. 2. Household budgets

Incomes	Expenses
<ul style="list-style-type: none"> • salary; • income from business activities; • income from self-employment; • income from the sale of agricultural products; • income from the sale of personal and household goods; • income from the sale of real estate; • income from leasing letting property; • pensions; • scholarships; • social assistance • and compensation; • interest on deposits; • dividends on shares; • income from other securities; • income from the sale of securities; • help from relatives; • other income 	<p>Relatively constant:</p> <ul style="list-style-type: none"> • food costs; • payment for apartments; • payment of communications services; • payment for transportation; • payment for insurance; • payment of interest for the loan; • maintenance and operation of the vehicle. <p>Variables:</p> <ul style="list-style-type: none"> • clothes, shoes and other goods; • medical services; • costs for recreation; • buying gifts; • personal expenses; • help relatives. Investment: • acquisition of shares and bonds; • buying property; • deposits in banks • other expenses
Surplus / Deficit	

Source: [9]

Researchers of households generally distinguish three most common tools of income and expenses in the household: total family budget, spouses' personal budgets and three budgets (general family and two personal spouse's budgets).

Thus, R. Blamberh and M. Coleman, having concluded that in the income and expenses management key factor of distribution of economic roles in the household is the value of received by its members income distinguish [4]:

- dominant husband income;
- ratio of the spouse's income;
- budgets independent of each other.

J. Pal and K. Vohler, exploring the mechanism of financial resources control in the household and the influence of money on the division of power within the household, single five basic ways to control monetary resources of the family [4]:

- the principal manager of the funds is a wife;
- the principal manager of the funds is a man;
- all the money in the joint are a couple;
- part of money is brought to the family budget, and the rest is manage by spouses independently;
- spouses have completely separate budgets.

Depending on the aim of management and property scale members of the household can make monthly, quarterly and annual budgets. When budgeting

household all income which household members expect to get in the planning period (salary, bonuses, interest from deposits, income from leasing of movable or immovable property for rent, pensions, scholarships, etc.) is reckoned to section «income». If income is irregular and unpredictable (eg, periodic fees), it is advisable to calculate the frequency of such for recent months and make the average.

Section “expenses” should be divided into several groups and for each type of expenses one must create a separate cell in the table. For example, to the first group (“Urgent expenses”) one may include the cost for food, purchasing hygiene products, household chemicals, payment for apartments, rent, payment for tuition, attending kindergarten, paying interest for the loan and so on. The second group (“Costs that can be postponed”) should include the payment for the purchase of clothing, footwear, leather goods etc. The third group (“Costs, which form a style of life”) include the expenses for mobile communications, the Internet, keeping a car, eating out, visiting salons etc. You can also distinguish a separately section of expenses “Recreation and Entertainment”, which reckons the costs for organizing holidays and leisure weekend, going to the movie, theater, buying books, CDs of favorite artists etc.

It is important in the selection of household budgets to distinguish of reserve fund, from which one can finance expenses that require prior savings (such as the repair, a vacation away from home, buying furniture, appliances, organizing family parties, etc.). The optimal size of the reserve fund can fluctuate within three month expenses of the household. Created by household reserves must primarily be high, that is to have the ability to turn for real money as soon as possible.

It is clear, the most liquid reserve is cash, which can be stored at home or in a bank safe. It is useful to distribute these reserves for different currencies (eg, hryvnya 40%, U.S. – 30 and Euro – 30%), which will reduce the risk of loss in time of sharp fluctuations.

To high liquid assets one can reckon money on credit cards (of course, in a safe bank). It is important that, the card was always had the minimum balance, which can be used at any moment, removing cash from an ATM or paying directly by the card.

Next liquid reserve are bank deposits (preferably short times) in the most secure bank, which also should be distributed in different currencies. To some extent small articles of precious metals, which, if necessary, can be sold and converted into cash (but you need to mind that the price and liquidity of the jewellery substantially depend on such factors as fashion) can be attributed to reserves. More serious reserve there is gold in bars.

In general, the composition and structure of items of income and expenses budgets of households depend on the age and number of household members. For example, the income of households, which consist mainly of young people, as a rule, the main income is salary, and total costs are the costs for education and entertainment. In households income, which consist mainly of middle and old

aged persons, there is a high proportion of income from property in dividends, interests from bank deposits or payments for the leased property, and the expenses categories are the costs for recreational purposes significant. With age also the proportion of funds allocated by the members of the household for savings is increased (including the event of unforeseen circumstances).

When budgeting household expenses should be divided into fixed and variable that will ensure accurate accounting of such costs and facilitate the search for reserves for their possible savings and rationalization.

However, we note that even if household members account and analyze their costs not systematically, but only for a limited period of time (for example, one or several months), even then it will be very useful, because such accounts will enable to identify many reserves to reduce expenses, which you did not previously pay attention, and received information will help to make expenses more rationally, even when account isn't conducted.

The final stage of the budget process at the household is the control of planned income and carrying out of planned expenses. An important element of such control is available cash management, which includes the regulation of money flows that are in bank accounts and accounts at other financial institutions, as well as cash balances (pocket money). Internal and external cash flows characterize the degree of economic stability of a household and its economic potential. Lack of minimum required reserve funds is an indicator of economic hardship of a household, and their excessive excess may be the evidence of lost opportunities for effective investment. That's why, an important component of households income and expenses management is also management by available cash, the main objectives of which are [4]:

- to maintain the minimum required reserve of available money which do not generate interest income;
- to provide high liquidity of that part of money which may be necessary for expenses for unforeseen purposes;
- to accommodate available cash on the conditions of the optimization of the correlation "risk – expenditure."

One must note that it is of course possible to do without a detailed schedule of household budgets and a thorough analysis. However, it is very difficult to find reserves for savings, which has become extremely important for many domestic households in the current financial crisis, without a clear picture of personal financial situation. And though, on the face of it, these reserves are not so significant, but their constant use will help save a lot of money for the family budget.

And we do have a saving reserves (for example, you can replace usual light bulbs in the apartment for economical, put meters for hot and cold water, changes pack cable to a smaller and cheaper, access to the unlimited package of mobile commu-

nications, refuse to buy food substitutes and ready-to-cook products, to buy clothes and shoes during the winter and summer sales, not to do spontaneous purchases, take books in the library, share by CDS, during the holidays to get acquainted with the picturesque landscapes and historical places of your own country, etc.).

Conclusions

Summarizing the above, we note that the households income and expenses management is extremely important and at the same time is quite difficult and cumbersome process that requires from the household members extraordinary competence, thoroughness and to a great extent creative approach to solving the fundamental economic problems.

In Ukraine, unfortunately, any experience or tradition of teaching people to manage personal income and expenses was not formed. In families like in primary schools where children at first learn the science of life, few parents (who were educated, mostly during continuous socialist deficit) have successful experience to manage their income and expenses.

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