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REGIONAL DEVELOPMENT SUPPORTING «GROWTH POINTS» CONCEPT

This study analyses determinants of the concept of "points of growth" at regional level. The definition of the concept of growth points is considered in terms of economic development of the region, which integrates into the global world. As a basic model of local development is proposed to use the theory for Growth Poles of François Perroux, that later was supplemented by Albert Hirschman. To estimate the possible practical applications of the theory for Growth Points in the development of local economic development programs and regional planning in the article it is considered the adaptive model of "growth points" with feedback. Using the proposed model allows us to develop an algorithm for the local public administration to identify the most prospective areas for attracting FDI.

Keywords: FDI, "Growth Points", regional development.

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РЕГІОНАЛЬНИЙ РОЗВИТОК НА БАЗІ КОНЦЕПЦІЇ «ТОЧОК ЗРОСТАННЯ»

У дослідженні аналізуються детермінанти концепції «точок зростання» на регіональному рівні. Визначення поняття точок зростання розглядається з точки зору економічного розвитку регіону, який інтегрований у глобальний світ. Як базову модель місцевого розвитку пропонується використовувати теорію полюсів зростання Франсуа Перу, що пізніше була доповнена Альбертом Хіршманом. Щоб оцінити можливості практичного застосування теорії точок зростання під час

розробки програм місцевого економічного розвитку та регіонального планування. У статті розглядається адаптивна модель «точок зростання» зі зворотним зв'язком. Використання запропонованої моделі дозволяє розробити алгоритм для місцевого державного управління, щоб визначити найбільш перспективні напрямки для залучення ПІІ.

Ключові слова: ПІІ, «точки зростання», регіональний розвиток.

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РЕГИОНАЛЬНОЕ РАЗВИТИЕ НА БАЗЕ КОНЦЕПЦИИ «ТОЧЕК РОСТА»

В исследовании анализируются детерминанты концепции «точек роста» на региональном уровне. Определение понятия точек роста рассматривается с точки зрения экономического развития региона, который интегрирован в глобальный мир. Как базовую модель местного развития предлагается использовать теорию полюсов роста Франсуа Перу, которая позже была дополнена Альбертом Хиршманом. Чтобы оценить возможности практического применения теории точек роста при разработке программ местного экономического развития и регионального планирования. В статье рассматривается адаптивная модель «точек роста» с обратной связью. Использование предложенной модели позволяет разработать алгоритм для местного государственного управления, чтобы определить наиболее перспективные направления для привлечения ПИИ.

Ключевые слова: ПИИ, «точки роста», региональное развитие.

Introduction. The matter of ensuring local economic development is one of the primary objectives for local public administrations of the Eastern European countries, including Ukraine and Republic of Moldova. Commonly used forms of its initiation are the determination and activation of the so-called “Growth Poles” (François Perroux, 1955). A theoretical basis of the works referred to planning of local economic

development is the Neoclassical Growth Theory that was set forth by James E. Meade, 1951 and then was further developed in the works of Robert M. Solow, 1956 and Trevor Swan, 1956.

Basic category of the growth theory is a “region” that should be seen as a territory that has a number of certain integral, interrelated characteristics, thus making it distinguishable from the other territories. Ensuring “economic development” expressed in indices of gross product dynamics or income level per capita in conditions of savings insufficiency is possible at the cost of external resources that are required for support of investment processes and capital reproduction, therefore stimulating the economic growth.

The task to determine the “growth point” and implement the program of its economic development is certainly imposing on local public administrations. In order to create better conditions for the region’s economic growth their first step is the development and implementation of respective programs that are introduced by a succession of systematic changes that bring the region to a higher level of its economic development. Specific features of such programs are as follows:

- Long-term nature of practical implementation;
- Possibility to assess the change process using quantitative (economics) and quantitative (social sector) indicators;
- Compulsory attraction of external resources, investments;
- Localization of business within the “growth point”;
- A combination of market principles and governance that allows considering different options of development directions, to foresee and choose the most optimal one.

Therefore, introduction of methodology of development and implementation of economic development programs on the principles of “growth points” concept use is important and has prospects.

Theoretical grounds of “growth points” concept use for management of local economic development. The subject of planning and public administration of local economic development on the grounds of “growth points” determination is covered in works of John B. Parr, 1999, John B. Parr, 1973, Morgan D. Thomas, 1975.

It is said there that a practical outcome of determination is the initiation of regionalization processes and appearing of regional economic centers: core, semi-periphery and periphery that subsequently become not only a heart of local development, but also a channel of involvement in the globalization processes. That is why a study of the influence and interrelation of regionalization and globalization processes on initiation and further development of “growth points” is the first step in determining the possibility of their creation.

Such study should be based on the principles of contribution determination of respective mechanisms of local public administration into this. Such approach is related to the modern rethinking of the state and executive power organ’s role, their restructuring and modernization in the context of regionalization and globalization processes and simultaneous consideration of the specific characteristics of the regional forms of development. In this context the regionalization itself can be considered not only as a mean of territorial regulation. Postindustrial regionalization (new regionalization) is conceptually better fitting in the essentially different edifice, as its main idea is in considering a region as a completely artificial construction that allows regulating the economic potential in terms of territory in order to ensure its effectiveness.

Modern approaches to the development of resource provision model for the “growth points” consider two possible options:

- Initiation of “growth points” on the grounds of special-purpose public financing;
- Determination of “growth points” where is the concentration of available resources and favorable conditions created for economic

development and attraction of foreign investments as well as developed infrastructure available, etc.

A comparison of both approaches allows making a conclusion that one basic model of local economic development, which theoretical base is the growth points theory and development centers (François Perroux, 1955). In case of limited localization of resources, the growth point can be introduced by a notion of “growth point”.

Behind the idea of François Perroux concerning the poles is the concept of centers and areas of economic space, where the enterprises involved in the international system of labor distribution are located and that become the attraction poles of production factors as they provide their most effective use. It leads to further concentration of the enterprises and as a consequence, formation of economic growth points.

“Growth points” management by local public administrations. In the modern practice of spatial economic development the ideas of growth points are implemented in such forms as free economic zones, technological parks, industrial parks, etc. Therefore, a conclusion can be made that it is about different approaches to practical implementation of one basic model of local economic development that in case of limited localization of resources can be represented by a concept of “growth point”.

In the context of public administration system the model of “growth point” creation should include identification of respective mechanisms with further presentations of the connections between the objects and subjects of administration and of the process itself in dynamics. In its turn, it stipulates the necessity to study specific features of the institutional and resource provision for implementation of “growth points” and change creation programs that are required for local system of public administration.

On the other hand, there is a mechanism of public administration of the “growth point” creation process within such system. It should be directed at achievement of specific purposes by influencing certain factors and using available and potential

resources of the “growth point”. Various definitions of “public administration mechanisms” concept maybe used as a basis for development of such mechanism model.

Generalization of the “public administration mechanism” concept in the context of studying the preconditions for the creation and development of the “growth point” allows determining it as a “system that sets the order of certain kinds of activity” and characterizes the «succession of conditions and processes that constitute any action”. Such mechanisms can be represented as an aggregate of economic, motivational and legal means of focused influence of the public administration subjects on the course of regional economic development process. Thereby the diagram of such administration mechanism should contain goals, solutions, decisions, impacts, actions, results and that should be reflected in the respective model.

The mechanism of public administration of the “growth point” creation and development process consists of the following elements:

- economic (mechanism of public administration of budget policy, social and economic development of the region, etc.);
- motivational (aggregate of social and economic incentives that influence on decision making process by public authorities with respect to the “growth point”);
- organizational (available objects and subjects of public and social management, their goals, tasks, functions, methods of management and organizational structures, as well as results that are expected as a result of the “growth point” development);
- political (formation mechanism of economic, social, financial, industrial policy on creation and development of the “growth point”);
- financial (project resources support on creation and development of the “growth point”, including banking and credit institutions, investment funds, special purpose public financing);

- legal (regulatory support: laws and decrees of the Ukrainian Parliament, presidential decrees, decrees and orders of the public ministries, methodological recommendations and instructions, etc., international law in the field of investment activity).

According to the determination, each of these elements represents a respective mechanism of public administration that in the general setting includes mechanisms of formation and implementation of the programs of creation and development of the “growth point”.

Considering all mentioned above, it is possible to emphasize a number of specific features of the mechanism of public administration of the creation and development process of the “growth point”:

- activity in the field of the “growth points” projects statement and implementation process should be productive, therefore, to minimize the resources consumption and to maintain their profitability at the same time, it is necessary to determine their specialty or industrial direction;
- a condition of ensuring the profitability of the “growth points” projects should be a priority compared with other directions of resources provision of local development;
- priority of the profitability goals of the “growth points” projects should be compatible with the general strategy of the region’s economic development;
- performance evaluation of the project on creation of the “growth points” should be done not according to specific elements of the project implementation course, but according to the final result.
- first step in development of the “growth points” project public administration model is determining:
- the novelty of such model, that is, how effective is going to be its application in relation to previous variants;

- theoretical and methodological principles that shall lay the basis of the new model;
- possibility to apply known successful examples of the “growth points” projects implementation;
- possibility to apply a public-private partnership mechanism upon “growth points” projects implementation;
- readiness of local public administrations to practical implementation of the suggested “growth points” projects and recommendations developed on their basis.

An instrumental action theory that proves a possibility to transform the environment based on the previously developed plan can be applied as a theoretical and methodological principle of the “growth points” project administration model (Michael J. V. Woolcock, 2001). It supposes the availability of the administration system based on the hierarchic principles as its main task is to provide for an unhindered decisions implementations and existence of only one decision-making center. The availability of two or more centers like this, which is natural on the framework of the democratic regime, is objectively leading to conflict of interests and powers of various intensiveness degrees.

Under such conditions the initiative and right to formulate a compulsory plan of actions should belong to the subject that is authorized to make final decisions, that is, local public authority.

Practical implementation of the “growth points” theory regulations was summarized in three models, Table 1.

Table 1. Models of the “growth points” determination and development

Model types	Characteristics
Growth points	<p>Centers and areas of economic space, where leading regional enterprises are. Dense location of industries that are dynamically developing leads to synergistic effect and appearance of industrial centers and peripheries.</p> <p>Practical implementation: free economic zones, technological parks, technology towns, priority development territories</p>
Agglomerates	<p>Dense location of urban settlements united into a certain integral unit with developed production, cultural and social connections. A form of territorial concentration of the industrial potential and various resources (financial, labor, infrastructural, investment, informational, etc.)</p>
Clusters	<p>Concentrated on the territory of interrelated companies: equipment, components and special service suppliers, infrastructure, research institutes and other organizations, that supplement each other and strengthen the competitive advantages of one another and the system as a whole.</p>

World experience of the last decade shows high effectiveness of the “growth points” projects creation. Their practical implementation is first of all related to the determination of the territories that are perspective for development and the possibility of their resourceprovision, joining the existing network of such points.

A specific precondition of the “growth points” concept use model development is a consideration of the terms of the a priori and current uncertainty in the description of the objects and factors of external influence, when such uncertainty has an essential impact on the process effectiveness. It stipulates the necessity to use an adaptive administration mechanism, which basis is an ability of the public authorities to change

the adopted program of implementation within the process of the “growth points” project implementation process.

Therefore, the adaptive model of the “growth points” project implementation process model should be read as a system that serves the basis for the operative change of administration algorithm or its parameters in order to ensure optimal, to a certain extent, operation of the system with a feedback. It is possible if such system contains the information about the parameters of external actions, dynamic object characteristics that is obtained in the course of the project implementation program. For this purpose, the administration algorithm or its parameters (regulator coefficients) are in a somewhat functional connection with the parameters of the external influence factors and indicators of the project performance evaluation.

Thus, the development of the “growth points” project implementation process model should foresee the detection of the specific features of the systems and mechanisms of administration of such projects and programs on the principles of organizational and functional adaptivemodel development, determination and justification of its optimization directions in accordance with the defined performance evaluation criterion. In accordance with the theory of multilevel systems the mechanism of public administration of the “growth points” project implementation process should have a defined specific structure, methods, leverages and instruments of influence on the administration object with a respective legal, normative and informational support.

In order to ensure practical application of the adaptive approach it is necessary to make sure that the “growth points” project implementation program complies with the existing approaches to adaptation of the complex social and economic systems in real time. According to Fig. 1. the administration system with a feedback compares the expected characteristics with performance indicators and determines the role of their deviation. Public authority shall develop and implement administrative decisions directed at elimination of detected inconsistency, achievement of desired characteristics by the “growth point” objects.

Model arrangement, Fig. 1, is determined by two prerequisites:

a) project output parameters (performance evaluation indicators) that in the process of its implementation serve as a regulation object for public authorities, that evaluate the nature of the administrative process course in the quantitative terms and adjust them in order to obtain the expected results, according to the changes of the characteristic features of the external factors impact;

b) project arrangement is performed with use of the tools of public-private partnership upon provision of the expected performance factors by the public-private partnership.

Specific character of the “growth point” project implementation process model is embodied in determination of connections between them on the basis of functions, forms, methods, means and administration processes distribution that arise between the process participants in compliance with terms and conditions of the private-public partnership agreement. Their generalization allows suggesting model adaptation principle to changes of influence factors. The main components of such model are: objects and subjects of public and social administration, their objectives, tasks, functions, administration methods, organizational structures and administrative services.

Statics of the model is determined by the subjects and objects administration (public authorities and private companies that act within the framework of the “growth point”), and dynamics by a complex of connections and procedures of interactions between them that are determined by a respective legislative base, structure of public authorities.

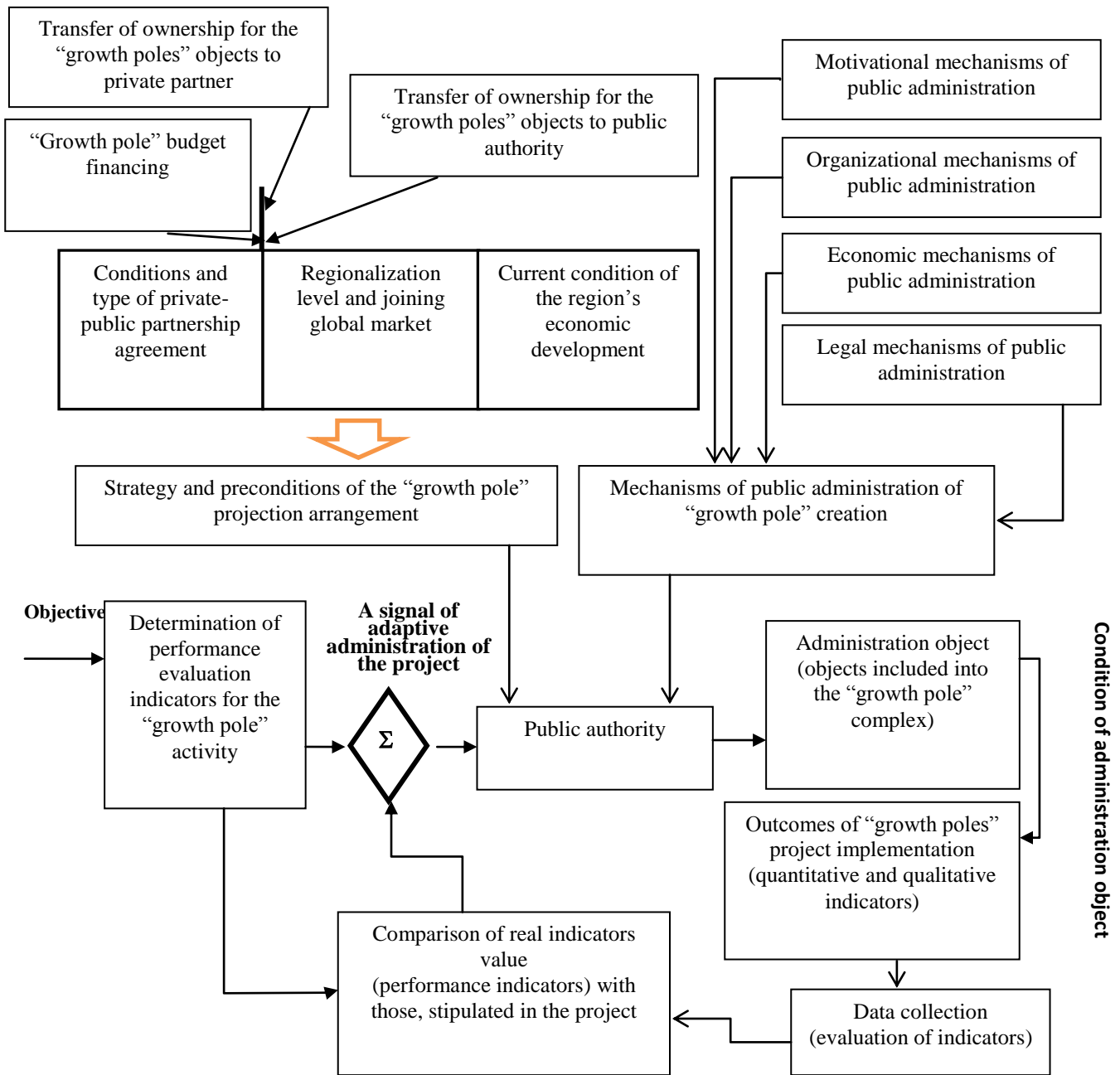


Fig. 1. Adaptive organizational and functional model of public administration of the "growth point" project implementation process with a feedback scope

Development, practical implementation and optimization of model mechanisms of public administration of the "growth point" project implementation process are impossible without determination of performance evaluation criteria of such model.

Indices of economic growth and increase of goods and services production volumes, etc. serve as a quantitative indicator of the “growth point” project implementation performance evaluation indicator.

A concept of public welfare as a long-term development objective may serve as a qualitative indicator of the “growth point” project implementation performance evaluation indicator.

Determination of welfare of an individual consumer based on the satisfaction level of consumer’s needs (sustainable development concept) is possible by application of utility function:

$$u_i = (x_i, G), (1)$$

where: x_i – is a consumption level of private welfare consumption and consumer;

G – is a level of public welfare consumption (according to definition they are identical to all consumers).

Bergson-Samuelson social welfare function is applied upon the transfer from welfare of an individual consumer to determination of welfare of the whole society (Gareth D. Myles (2001))

$$W = \sum_1^k (x_1, \dots, x_k, G). (2)$$

According to this function, for any consumer “ k ” the best variant of consumption increases general utility W . At the same time, Bergson-Samuelson function does not explain how the changes that improve situation of some consumers and at the same time worsen the situation of the other consumers, influence the welfare of society.

Thus, determination of qualitative and quantitative indicators of the “growth point” project implementation performance evaluation is a separate problem that requires further study.

The initial precondition of the “growth point” project implementation model development is a local development strategy. Thereby, a respective algorithm of the “growth point” creation has a dependent nature, is agreed according to the objectives and stages of implementation and is considered as a factor of its effectiveness provision in accordance with a chosen general economic strategy.

In accordance with the algorithm represented at figure 3 the choice of implementation ways of the “growth point” local strategic objectives can be performed in two directions. One of them shall cover the development of the “growth point” strategic directions and the other one – resource support strategy development. This stage is the most important and difficult.

The solution of this problem in perspective depends on the stages of life cycles of the adopted “growth point” strategy, Fig.2.

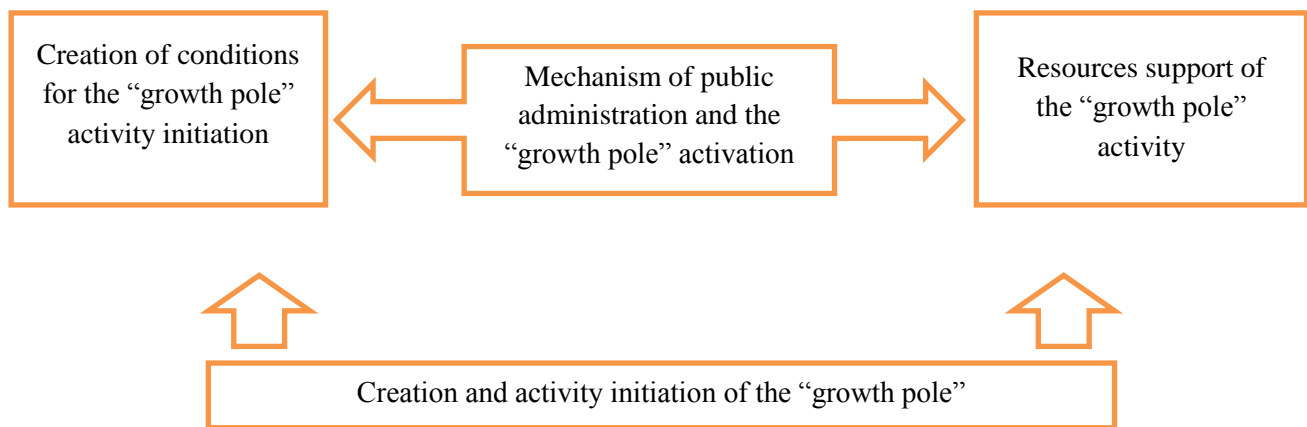


Fig. 2. Nature of “growth point” life strategy stages

At the stages of “birth” and “development” of the “growth point” main share of the resources support of the “growth point” activity has a material form. At the stage of “expansion” prevailing are direct foreign investments that at the stage of “maturity” of the “growth point” are also a condition of further development. In order to avoid a

“recession” period and to prolong the “maturity” period, it is necessary to perform a timely activity diversification of the companies, which are a part of the “growth point”. In its turn, it provides for not only the suspension of the “recession” period, but also for a transfer to a new stage of “expansion”.

World’s most widespread practice of local economic development achievement on the principles of the “growth point” concept is the establishment of industrial parks. An extremely important success condition at the stage of initiation and commencement of the “growth point” project is the level of expertise and will to compromise by the local power in the negotiation process with key investors.

Conclusions. The offer to apply the “growth point” project implementation as a basis for the provision of local economic growth supposes a combination of functional and situational beginnings, consolidation of administration stages into a unified administrative cycle and objects and subjects of administration into an integral flexible organizational structure. Such approach allows considering a possibility to change the administration system functioning conditions, ensuring its flexible reaction to change of conditions by application of alternative options. It supposes a systemic review of the organizational structure that consists of the differentiated and interdependent totality of actions required for achievement of goals and determination of which part of the unified administration cycle may be performed by a private company and which part by public authorities.

References.

1. Perroux, François (1955): Note sur la notion de poles croissance. *Economic Appliquee*, 1 & 2:307-320 (Translated by Mette Monsted, (1974).
2. Perroux, François (1950): Economic space: theory and applications. *Quarterly Journal of Economics*, Vol. 64: 90–97.
3. Robert M. Solow (1974) The Economics of Resources or the Resources of Economics. *The American Economic Review* Vol. 64, No. 2, Papers and Proceedings of

the Eighty-sixth Annual Meeting of the American Economic Association (May, 1974), pp. 1–14.

4. Angotti, Tom (1998): Ciudad Guayana: From Growth Pole to Metropolis, Central Planning to Participation. Paper Presented at the Latin American Studies Association Conference, Chicago, September 1998.

5. Darwent, David (1969): Growth poles and growth center in regional planning: a review. *Environment and Planning*, vol. 1: 5–32.

6. Gilbert, Alan (1974): growth Poles: the instant solution to regional problems? In: R.S. Thoman (ed.): *Proceedings of the Commission on Regional Aspects of Development*. Vol. 1: Methodology and case Studies: 111–128. Toronto: Allister Publishing.

7. John B. Parr (1999) Growth-pole Strategies in Regional Economic Planning: A Retrospective View Part 1. Origins and Advocacy. *Urban Stud* June 1999 vol. 36 no. 7.

8. John B. Parr (1973) GROWTH POLES, REGIONAL DEVELOPMENT, AND CENTRAL PLACE THEORY. *Regional Science*, Volume 31, Issue 1, pages 173–212, January 1973.

9. Morgan D. Thomas (1975) GROWTH POLE THEORY, TECHNOLOGICAL CHANGE, AND REGIONAL ECONOMIC GROWTH. *Regional Science*, Volume 34, Issue 1, pages 3–25, January 1975.

10. Anna Dąbrowska & Julita Łukomska (2012) Subregional Growth Poles in the Competition for Development Factors, *Miscellanea Geographica - Regional Studies on Development*. Volume 15, Issue -1, Pages 133.

11. Jonathon Adams-Kane & Jamus Jerome Lim (2011) Global Growth Poles in a Multipolar World Economy Web page. Retrieved from <http://www.jamus.name/research/ipe4.pdf>.

12. Robert M. Solow, (1956) A Contribution to the Theory of Economic Growth, *The Quarterly Journal of Economics*, Vol. 70, No. 1. (Feb., 1956), pp. 65-94.

Web page. Retrieved from <http://www.links.jstor.org/sici?sici=0033-5533%28195602%2970%3A1%3C65%3AACTTTO%3E2.0.CO%3B2-M>.

13. Trevor Swan (1956), ECONOMIC GROWTH and CAPITAL ACCUMULATION, Economic Record Volume 32, Issue 2, pages 334–361, November 1956.

14. James E. Meade (1951). The Theory of International Economic Policy. Vol. 1: The Balance of Payments. Vol. 2: Trade and Welfare, with “Mathematical Supplements.” London: Oxford University Press.

15. Michael J. V. Woolcock (2001) Social Capital: A Theory of Social Structure and Action. By Nan Lin. Cambridge University Press, 2001. 278 pp.

16. Gareth D. Myles (2001) Public Economics, p.538 Web page. Retrieved from <http://www.people.exeter.ac.uk/gdmyles/papers/pdfs/pubec.pdf>.