ISSN 2079-9705, Regional Research of Russia, 2022, Vol. 12, No. 4, pp. 439–450. © Pleiades Publishing, Ltd., 2022.
Russian Text © The Author(s), 2022, published in Region: Ekonomika i Sotsiologiya, 2022, No. 1, pp. 289–323.

SPATIAL DEVELOPMENT

Efficiency and Equality: Twenty Years of Discussion on Spatial Development

L. V. Melnikova[a, b, *]

[a] *Institute of Economics and Industrial Engineering, Siberian Branch, Russian Academy of Sciences, Novosibirsk, Russia*
[b] *Novosibirsk National Research State University, Novosibirsk, Russia*
**e-mail: melnikova@ieie.nsc.ru*

Received August 20, 2021; revised June 14, 2022; accepted July 14, 2022

Abstract—Based on three strata of the literature, the evolution and mutual influence are analyzed of the ideas about efficiency and equality in spatial development, including the reflection of these ideas in competing regional-policy concepts from the 1990s to the present day. The first stream of publications captures the debate about the role of space in the era of globalization and revolutionary changes in information transfer. Polarized hypotheses, from the "death of space" to the "tyranny of space," have stimulated empirical assessments on the impact of distance on the level of economic interactions. These assessments have not confirmed the thesis about a "flat world," where economic activity is distributed evenly. At the same time, the expert community has become dissatisfied with the results of traditional redistributive regional policies, giving rise to a second stream of literature, i.e., the debate between the proponents of place-neutral and place-based policies. The former policy approach focuses on urban agglomerations as sources of growth while the latter seeks to unlock the underutilized potential of each place. The debate has clarified possible implications of these approaches in terms of achieving efficiency of national economies and reducing regional disparities. Recognizing the value of each place has led to a new requirement, i.e., that for the place-based policy to be place-sensitive. Simultaneously, a similar discussion about the focus areas of spatial development of the Russian economy and the principles of regional policy has been unfolding in the Russian-language segment. The major issues are the spatial concentration of growth in cities and the ways to reduce regional inequality. The main feature of the debate is its focus on the changing versions of spatial development strategies, which are often based on opposing principles.

Keywords: distance, space, mobility, city, regional policy, regional inequality, economic efficiency, discussion

DOI: 10.1134/S2079970522700137

INTRODUCTION

Achieving a balance between the goals of equality and efficiency in social and economic policy making is still a problem that is largely unresolved. In the case of regional policy, in view of the inevitably spatial nature of state intervention and its implications, this problem transforms into a conflict of goals, i.e., a conflict between the spatial concentration of an economy and the balanced development of regions. This problem has been debated for the last 2 decades, giving rise to three streams of literature.

The first one is publications on a problem that appears, at first glance, to belong to classical philosophy with its basic categories of space and time. At the turn of the 20th and 21st centuries, the thesis was proposed about the "death of distance" in the course of technological progress (Cairncross, 1997). Its supporters argued that the free movement of information, ideas, people, and capital would lead to a spatial dispersion of economic activities, or a "flat world," as Thomas Friedman (2005) figuratively put it. On the other hand, analyses of economies of vast and remote countries, where the geographical factor cannot be ignored, have been using the "tyranny of distance" argument for more than half a century (Blainey, 1966). Different conclusions are drawn from this discussion with respect to regional policy. If the "flat world" view is accepted, then the role of space as a place for performing human activities is diminished and regional policy is right to ignore this factor. Otherwise, regional policy measures should be differentiated depending on the places where they are implemented.

This stream of literature resonates ideologically with two discussions about the principles of regional policy in the English- and Russian-language segments of research literature. In the former segment, a debate has been unfolding between adherents of the so-called *place-neutral* and *place-based approaches* to regional policy. Those committed to a place-neutral approach proposed creating conditions for the concentration of

resources in individual cities and regions that make the greatest contribution to national growth, while their opponents sought to look for underutilized economic growth potential in settlements of all ranks and create conditions for unlocking this potential.

For the Russian economy, it was especially difficult to choose the principles of regional policy, as evidenced by the 20-year-long debate around the process of designing the Strategy for Spatial Development in the Russian Federation. The debate focused on arguments about the role of agglomerations in accelerating the country's economic growth and about the role of Siberia and the Arctic in its development. The discussion about the principles of Russian regional policy continues to this day. Further in the article, we consider, one by one, all the three streams of literature.

THE "DEATH OF DISTANCE" *VERSUS* THE "TYRANNY OF DISTANCE"

The "death of distance" metaphor as the quintessence of optimism about the prospects for overcoming friction of space came into the modern discourse in 1997 from (Cairncross, 1997). This metaphor sparked a debate about the role of space in an economy that is rapidly changing under the influence of technological progress in transportation and telecommunications. However, the idea of space compression emerged much earlier, dating back to the era of the steam-powered transport revolution (Warf, 2011). Litvine (2021) showed in an extensive review how the concept of "annihilation of space," a poetic and philosophical metaphor of the early 18th century, transformed 100 years later, with the spread of steamboats and locomotives, into the epithet of industrial mobility and made its way into the political economy of spatial reductionism. The emergence of this theory is associated with the latest works by Henri de Saint-Simon, who proclaimed the disappearance of national borders as a result of increased mobility. Applying the dialectical method to this idea, Karl Marx presented the process of capital accumulation as a continuous spatial expansion of the market and a simultaneous contraction of travel time, or the "annihilation of space by time" (Litvine, 2021).

Drawing upon the Marxist approach and taking into account Martin Heidegger's predictions that "place" would be losing its significance in increasingly uniform space, David Harvey proposed in the 1970s the concept of *time–space compression* to denote the acceleration of capital flows and social life in general (Kivisto, 2012). Simultaneously, this concept was widely used in transport geography in the analysis of *time–space convergence* (a term introduced by Donald Janelle (1969)), measured by the reduction in travel time between two locations as a result of transport innovations. On the other hand, this was the time when Geoffrey Blainey introduced his expression "the tyranny of distance," meaning the disadvantage of remote location of the economy due to the increased costs of overcoming the distance. The author believed that remoteness completely shaped the destiny of Australia and its population as well as the structure of its economy (Blainey, 1966). In this sense, he continued the traditions of Adam Smith, who associated the "barbarous and uncivilized state" of his contemporary "Tartary and Siberia" with their low transport accessibility (Smith, 1976, p. 36). The concept of *friction of distance*, in fact, lay at the core of Waldo Tobler's first law of geography (1970), according to which "everything is related to everything else, but near things are more related than distant things."

In the half century that has passed since Blainey published his work, Australia's isolation has largely weakened as its economic ties were reoriented towards the economic centers of the Pacific region (Pirie, 2009). A more powerful, global factor in the compression of space was the reduction in unit costs of transport and communications. Thus, from 1930 to 2000, the average real port charges and ocean freight per short ton of cargo decreased by two-thirds; real costs for transport by air dropped by almost an order of magnitude; and the cost of a 3-min telephone call from New York to London decreased by 99.9% (Busse, 2003). Hence one would expect, at the very least, a reduced role for the transport and communications cost factor in the location of production facilities. At the turn of the 20th and 21st centuries, this assumption was supported by the global spread of the Internet, ultra-long haul flights, container shipping, and the integration of financial markets. Cairncross (1997) believed that advances in telecommunications would annihilate distance as a factor in life and business, and O'Brien (1992) proclaimed "the end of geography" in financial markets. Considering the prospects for the free movement of information, ideas, people, and capital in space, Friedman (2005) proposed the idea of a "flat world," where the distance factor disappears. Indeed, theoretically, if transport costs are negligible, then firms can choose any point in space to locate their business, which should lead in the long run to a dispersion of economic activity.

These theses gained popularity, especially in journalism, and stimulated empirical research. Gravity models became the main tool for testing (Head and Mayer, 2014). In models of this type, the volumes of trade between countries are directly proportional to the size of the partner economies and inversely proportional to the distance between them to the power of β. The estimate for the coefficient β characterizes the elasticity of trade volumes with respect to distance, which is interpreted as distance friction, implicitly determined by the costs of overcoming it. The vast majority of the elasticity estimates showed that the coefficients were stable or steadily increasing over the estimated time intervals, which contradicted the ideas about the diminishing importance of geography. Estimates showing a decrease in the distance coefficients

in the gravity model were few (Boisso and Ferrantino, 1997; Eichengreen and Irwin, 1998). At present, so many elasticity estimates have been accumulated that several metaanalyses have been carried out, which show that, on average, the elasticities tend to unity (i.e., a 10% increase in the distance between partners reduces the intensity of bilateral trade by 10%) (Disdier and Head, 2008; Head and Mayer, 2014; Tlusta, 2015; The gravity ..., 2017). Thus, despite the evident reduction in tariffs, doubling the distance reduces the volume of trade interactions, on average, by one-half.

The resulting estimates ran counter to the globalization forecasts, which gave rise to a series of studies on the "distance puzzle" or the "missing globalization puzzle" (Coe et al., 2007). The search went in the direction of refining the samples of countries and types of activities and revising the specifications of the models themselves. The distance factor was found to reduce trade interactions between poor countries to a greater extent than between rich ones (Carrere et al., 2012). Further, trade between developed countries is predominantly of an intraindustry nature (i.e., developed countries trade in differentiated goods) while the exports from developing countries rely on Ricardian goods with comparative advantages and go to developed countries. Therefore, the negative impact of distance on the total trade volumes should be increasing as the proportion of intraindustry trade rises (Melitz, 2007). Another explanation—"contractual friction"—relates to vertical specialization, i.e., the rapid growth of trade in intermediate goods raises the costs of coordinating supplies between partners, which forces them to avoid distant interactions (Conconi et al., 2020). A weakened influence of distance on trade manifests itself only in the group of highly developed countries, for which the elasticity may drop to 0.5 (Nijkamp and Ratajczak, 2021). On the other hand, the distance elasticity of trade is much higher for resource goods than for industrial goods, which conserves the existing "tyranny of distance" in resource-exporting countries such as Australia, New Zealand, Chile, Peru, Brazil, and South Africa (Robertson and Robitaille, 2017).

Technological progress in transport contributed to lower transport tariffs but it was accompanied with an increase in the intensity of freight and passenger traffic. Thus, the volume of transport services did not decrease despite the diminished proportion of transport-intensive industries in economy. The transport component of costs decreased, but the share of transaction costs increased (Rietveld and Vickerman, 2004). As part of the information costs, the cost of transmitting standardized information is reduced, but the increasing volume and complexity of non-standardised tacit information requires face-to-face contacts between people (McCann and Shefer, 2003). As a result, according to UNCTAD statistics,[1] the share of Transport, Storage, and Communications in gross value added increased from 1970 to 2019 from 7.8 to 8.7% in the global economy and from 8.3 to 9.9% in the 57 countries that are classified as industrialized nations in the UNIDO methodology.[2] Even the Internet, which is deemed to be "antispatial," shows an attenuation of IP connectivity with growing distance between locations because the physical infrastructure of the Internet tends towards agglomeration (Tranos and Nijkamp, 2013).

Thus, empirical estimates show that due to the friction of space, more closely located objects interact more intensively. However, it would be erroneous to treat predictions about the contraction of space only as powerful metaphors. A quarter of a century of studies after the announcement of the "death of space" reveals that, due to structural differences, space contracts unevenly, bringing successful countries and regions closer to one another and leaving the lagging ones on the periphery.

PLACE-NEUTRAL AND PLACE-BASED APPROACHES IN REGIONAL POLICY

Technological progress did not annihilate the significance of space; therefore, the conditions persist for inequality between countries and between regions within countries. The inevitability of differentiation of markets in space follows directly from the fact that firms locate their activities at different points in space and from the assumption of nonzero transportation costs and increasing economies of scale. Then, even with other things being equal, a difference arises in the costs and, consequently, in the profitability of firms, and given the physical and price heterogeneity of space, regional differences become inevitable and are further aggravated by differences in economic growth rates. Several traditions exist that explain regional inequality. Neoclassical theory attributes the regional differentiation of growth rates to differences in the regional rates of capital accumulation. In endogenous growth models, regional disparities arise due to specificities in the accumulation of human capital and R&D. In evolutionary growth theories, these disparities depend on the rate of diffusion of innovations through the adaptive behavior of firms within a regional innovation system. Models of the new economic geography treat the unequal distribution of economic activity and, therefore, income between regions as an outcome of a cumulative influx of mobile resources into one of the two regions; the resulting inequality depends on variations in transport costs relative to economies of scale and on the previous state.

The goals of regional policy are to ensure a balanced sustainable growth of regional economies and, at the same time, to prevent an increase in regional

[1] https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=95.

[2] https://www.unido.org/sites/default/files/files/2018-03/Country_Grouping_in_UNIDO_Statistics_2013.pdf.

inequality of income and employment. These goals are based on the *efficiency* and *equality* arguments. The efficiency argument proceeds from the assumption that the market mechanism ensures an efficient allocation of resources, and regional policy serves to correct the imperfections of market, i.e., to remove barriers to the free exchange of goods and the free movement of resources. The equality argument proceeds from the fact that excessive disproportions in the distribution of wealth between social groups, regions, and industries are morally unacceptable and represent a political risk to the unity of the state; therefore, regional policy should promote the redistribution of resources between regions in the desired direction (Maier and Trippl, 2014).

The classical contradiction in the goal-setting of regional policy manifests itself in the discussion about the *place-neutral* and *place-based strategies*, which was initiated in 2009 by the reports of the World Bank (2009) and the European Commission (Barca, 2009). According to the first report, "in countries where labor and capital are mobile, economic distance between lagging and leading areas should be addressed mainly with spatially blind or universal policies" (World Bank, 2009, p. 230). One such universal tool is spatial mobility, in particular, the migration of workers and companies to successful cities. The second report argues in favor of the opposite, a place-based approach, aiming at unlocking the economic and social potential of each place. The place-based policy instruments are public intervention and multilevel governance. Fabrizio Barca believes that the "space-blindness" of regional policy is only a screen that covers its inevitably territorial focus (2009, p. vii).

Both approaches have a long history. In the 1960s, Louis Winnick (1966) outlined a dichotomy between policies aimed at "people prosperity" *versus* those aimed at "place prosperity." The former implied supporting people as individuals regardless of their place of residence; the latter supported groups of people on the basis of their residence in a depressed region (Bolton, 1992). "People prosperity" is promoted by indirect regional policy measures, including the encouragement and support of migration, retraining, educational programs, and sanitary standards. These measures result in the growing welfare of target groups, employment, and overall efficiency of the national economy, but the structural problems of regions remain unresolved. Promoting "place prosperity" requires direct regional policy measures such as facilitating the development of regional infrastructure, attracting businesses, and eventually creating jobs (Parr, 2015). These measures help actualize the comparative advantages of places, but the reallocation of resources to stagnating regions reduces the overall efficiency of a national economy. These two types of policy, *people-based* and *place-based*, are also called rhetorically "bringing people to jobs" and "bringing jobs to people."

In the 2000s, the expert community grew disappointed with the results of the "spatial rebalancing" policy, which was, in fact, redistributive. Between 2000 and 2010, regional disparities[3] in GDP per capita measured by Theil inequality index increased from 0.067 to 0.073 (OECD, 2020). Regional disparities remained unresolved by such measures as attracting foreign investment, subsidizing the relocation of firms to backward regions, or investing in infrastructure. Increased protectionism, growing globalization, and its rejection by regional communities, growing social inequality, and depletion of natural resources became new obstacles to the prosperity of regions. Meanwhile, new knowledge was accumulated about economic growth based on endogenous mechanisms, agglomeration economies, and the role of institutions in development. Under these conditions, influential reports were published that proclaimed different principles of regional policy.

The Place-Neutral Policy

Instead of choosing between "people prosperity" and "place prosperity," the World Bank report proposes a universal goal of promoting "activities that produce the highest economic and social returns nationally." In leading regions, the proposed policy would become "durable investments" in places, and in lagging ones, it will be "portable investments" in people that "stimulate mobility and accelerate poverty reduction" (World Bank, 2009, p. 231). Mobility promotion policies aim to reduce the costs of mobility to people through the development of transport infrastructure in order to improve spatial cohesion, provide universal access to basic public services (health, education, sanitation, and security), and implement progressive taxation.

According to the authors of the World Bank report, this policy will encourage people to move to places with more efficient economies, where they can find jobs with higher wages than in their home areas. As a result, the income differentiation of the population will decrease, as will (in absolute terms) poverty in the depopulated lagging areas.[4] The proposed measures are justified by references to the theory of new economic geography, where spatial disparities are an integral feature of economic growth, which concentrates in the most developed and densely populated areas as

[3] The Theil inequality index for Small regions (TL3) was estimated by OECD analysts on the basis of 1509 regions in 26 OECD countries as the ratio of GDP per capita in the top quintile (the richest regions) to GDP per capita in the bottom quintile (the poorest ones).

[4] A similar toolkit for reducing inequality is used in the neoclassical model of interregional migration of production factors. However, even in the strict conditions of this model (perfect competition, free movement, and flexible labor market), these tools do not necessarily lead to regional equalization because the outcome of migration could be a concentration of economic activity in one region (Carlberg, 1981).

a result of a cumulative influx of mobile resources. In the center–periphery model, the dispersion of economic activity between regions is an unstable equilibrium and it is impossible to predict where an agglomeration arises because the choice of place depends on the past decisions of firms. Hence, it follows that a regional policy that attempts to stimulate growth in lagging areas will be *a priori* inefficient; running counter to market mechanisms, it will hinder overall growth (Lall, 2009). Proponents of this approach advised that one should avoid targeted support of places, leaving it to agglomeration forces to determine which ones would be "prosperous," and direct the limited resources to create conditions and incentives so that factors could move to places where they are used most productively. Theories of urban economics argue that these are big cities. Having advantages in productivity and innovation based on the concentration and density of economic activity, cities could spread economic growth to the periphery in the natural, market-based way, which would ultimately help to smooth out spatial disparities (Cheshire et al., 2014; Glaeser, 2011).

The key thesis of the World Bank report "the world is not flat" was appreciated by experts as a long-awaited recognition by mainstream economists of the role of space in economics (Peck and Sheppard, 2010). The greatest doubts arose about the thesis on the spatial "neutrality" of the proposed policy, on the superiority of big cities, and on the role of mobility in mitigating spatial disparities. According to Barca et al., "...what are apparently space-neutral policies will always have explicit spatial effects, many of which will undermine the aims of the policy itself unless its spatial effects are explicitly taken into consideration" (2012, p. 139). With regions differing in the quality of human capital, institutions, and management, even the access to basic services will be addressed with varying degrees of efficiency, not to mention the impact of innovation policies (Todes and Turok, 2018). This leads to a gradual accumulation of regional disparities even in the absence of a targeted regional policy.

Opponents argue that space-neutral policy, which encourages the migration of mobile resources to specific locations, has not progressed much past the traditional redistributive policies, with the only difference that the former targets big cities. A "space-blind" policy usually turns out to be a policy promoting the development of capital cities and reflecting the influence of rent-seeking metropolitan elites in all spheres of public life (McCann and Rodríguez-Pose, 2011). According to Barca et al., "...the economy as a whole can reach its total output frontier by developing places of different sizes and densities, because it is the performance of the urban and regional system as a whole which is critical, rather than just the cities at the top of the urban hierarchy" (2012). Moreover, modern studies in urban economics are less enthusiastic about the impact of agglomeration effects on labor productivity. At the beginning of this century, Richard Florida argued for the power law of urban growth ("doubling a city's population more than doubles its creative and economic output" (Florida, 2002)), but in 2019, researchers showed on the basis of an extensive meta-analysis of accumulated empirical estimates that the elasticity of productivity by city size is, on average, 0.047 (Graham and Gibbons, 2019). This corresponds to a productivity gain of 3.3% in doubling a city's population.

The mobility and cohesion policy proposed in the World Bank is designed to ensure "economic integration" between leading and lagging regions through both trade and factor migration and, eventually, to promote income equalization. However, such a forecast ignores the initially unequal distribution of productive resources. With the increase in spatial cohesion, these resources will more likely be pulled to rich regions, thus enhancing regional disparities (which is what happens in the models of new economic geography when transport costs decrease). Empirical studies show that infrastructure policies "have often led to greater economic agglomeration, regional polarization, and to an increasing economic marginalization of many peripheral regions" (Barca et al., 2012, p. 137). Major cities are more likely to interact with other global cities than to spread growth to the territories of nearby regions (McCann, 2016).

Critics have pointed out that the World Bank report proceeded from a rigid premise of perfect mobility, which is common to urban economics models (Rodríguez-Pose, 2018). This underestimated the economic, human and social costs of interregional migration associated to local history, culture, and traditions (Rigg et al., 2009), which create persistent inter-country differences in mobility. For example, in the United States, population mobility is higher than in European countries (Beyer and Smets, 2015). Thus, the role of migration in smoothing out regional disparities may be exaggerated.

Evaluating their report a decade later, its authors admitted that in having focused on the economic effects of agglomeration and migration they failed to foresee that (1) crowding is possible in cities without urbanization (as in the case of overcrowded cities in India and Africa); (2) migration would cause political hostility in the United States and Europe; (3) China's One Belt, One Road initiative would overturn the priority of institutions over infrastructure prescribed in the report.[5]

The Place-Based Policy

Traditionally, place-based policy was defined as the efforts of authorities to improve the economic performance of an area in their jurisdiction; these efforts

[5] https://www.worldbank.org/en/events/2019/03/25/world-development-report-2009-reshaping-economic-geography#3.

did not necessarily target lagging areas only (Neumark and Simpson, 2015). The report of the European Commission, which announced the reform of the European cohesion policy, presents a new approach to place-based policy. The report sets out two policy goals at once, i.e., "giving all places the opportunity to make use of their potential (efficiency) and all people the opportunity to be socially included independently of where they live (social inclusion)" (Barca, 2009, p. xii). The report proceeds, first, from recognizing the importance of geographical conditions as well as social, cultural, and institutional characteristics of a given place. Second, the key issue is knowledge. "Who knows what to do where and when? Underdevelopment traps... are the result of a failure of local elites to act and can only be tackled by new knowledge and ideas: the purpose of development policy is to promote them through the interaction of those local groups and the external elites involved in the policy" (Barca et al., 2012, p. 139). If the potential of a place is underutilized because of a lack of knowledge, ideas, experience, or failures in the actions of local authorities, then targeted intervention is required.

The choice of any targeted policy can be justified by efficiency arguments based on agglomeration economies of scale (Neumark and Simpson, 2015). Since multiple equilibria are possible when locating economic activity, external intervention (such as subsidizing immigration or economic growth) may be justified in order to move from an equilibrium of low employment and density to another equilibrium, the one with high performance, if the gains outweigh the costs of stimulating measures (Moretti, 2010). These recommendations, which are based on the theory of new economic geography, are in direct opposition to the laissez-faire principles, which are derived from the same theory by proponents of space-neutral approach.

Another rationale is to compensate for the imperfections of regional labor markets, which are described by the so-called *spatial mismatch hypothesis*: (1) in the event of an economic decline in a region, low-skill workers are locked inside it; (2) the network effects of information dissemination within the local community can both weaken and strengthen the results of regional policy (Neumark and Simpson, 2015). The imperfection of the market implies the incomplete use of local mobile labor resources, while the space-neutral approach proceeds from the fact that market guarantees the full use of resources.

It follows from the above that nonmobile resources (local skills and knowledge, natural resources, cultural landscape, traditional forms of self-organization of society) are also underutilized in emptying regions. This is what lies at the core of the key efficiency argument put forward by the ideologists of the place-based approach. It can be derived, first, from the models of new economic geography, which allow a Pareto-inefficient location of economic activities even when economic agents behave rationally (Ottaviano and Thisse, 2002), and, second, from the theory of evolutionary economic geography, which emphasizes the importance of the time factor (time as a friction) and historical context when explaining changes in the spatial organization of economy.

The theory of evolutionary economic geography builds upon the principles of Darwinism (introduction, selection, and conservation of species), on the theory of adaptive complex systems, and on the ideas of path dependence (Boschma and Martin, 2010). It gives rise to the concept of time friction as each stage of evolution takes time: (1) the growth, development, and dissemination of ideas and innovations; (2) the selection of ideas and innovations by the market and the influence of policy on this selection; and (3) the impact of path dependence on regional development (Henning, 2019). Time hinders the development of space. It is no coincidence that the critics of the space-neutral approach often raise the argument that there may simply not be enough time for the natural diffusion of growth into the territory of a weak region.[6]

Seravalli (2015) used the evolutionary approach to show why local nonmobile resources may be underutilized even if a region does not experience an outflow of mobile resources. Existing decision-making procedures and habitual thinking give rise to influential institutions that create adaptive mechanisms of consent in the local community and form a collective identity. Therefore, in a situation that calls for innovation, strong local opposition may arise both to a specific project and to innovations in general. If a community feels that its identity is threatened from outside, the regional policy may fail because the external participation is its crucial component. Neither example offered by other countries would work here nor formulas, nor best practices, since the situation calls for the specific place-based experience of mutual actions by local project participants. The presence of successful experience could help change the usual procedures and traditions, but its absence creates a "trap." As a result, those who are interested in maintaining the *status quo* have every chance of defeating those who want change. If a development project is not implemented in the region, local resources remain underutilized, and the presence of "traps" blocks them further.

At present, however, the arguments for place-based policy are far more persuasive than its results, which are either low or uncertain; they cannot prove that targeted policy is more efficient than more neutral measures and that it achieves its goals. Estimates for the effects from creating special economic zones and from

[6] Compared to the Marxian era, when the accelerating growth of capital expanded the geography of markets, in the modern conditions, time is transforming from an instrument of "space annihilation" into a resource, the scarcity of which raises a barrier to the complexity of space.

investing in infrastructure and universities show no stability even in the case of a clear positive effect; economic growth is observed in intervention zones only as long as incentive programs are in place (Neumark and Simpson, 2015). One reason may be that at the design stage, the program does not take into account the indirect effects related to the decisions of private firms if they locate their business in a target region. Firms come to a region not only because it develops a public infrastructure but also under the influence of investment decisions of other firms. Expectations about the future of the region can turn into both an inflow and outflow of firms, which is very difficult to predict (Duranton and Venables, 2018).

Nevertheless, over the past decade, the OECD regions have seen a slight slowdown in the growth of regional disparities measured by the Theil index of GDP per capita, which increased from 0.073 in 2010 to 0.076 in 2019 (OECD, 2020). In the EU regions supported by cohesion transfers, economic growth has accelerated, but disparities between metropolitan areas are not decreasing, suggesting that economic forces swamp the impact of the European cohesion policies. It is suggested that place-based policies may still have mitigated the rise of inequality in Europe, albeit modestly (Ehrlich and Overman, 2020).

The disputants are arriving gradually at the conclusion that in a world where some people are mobile and others are not, the "either–or" debate, or the opposition of the place-blind and place-based approaches, is of little use. It is more important to understand that one and the same type of policy will show different cost–effectiveness, have different impacts on spatial disparities, and create different benefits for different population groups when applied in different regions (Ehrlich and Overman, 2020).

Increasing numbers of authors see the prospects of resolving the dilemma in making a local targeted policy *place-sensitive* or locally customizable. A place-sensitive policy of "distributed development" should ensure a differentiated approach to different clubs of regions. Such a policy is designed to help: (1) the richest regions to retain their innovation advantages; (2) the middle-income regions to avoid the "average income trap», in which they find themselves without an advantages in productivity, innovations and low-cost resources; and (3) the poorest regions to utilize their temporary efficiency advantages resulting from low labor and land costs and to move into the group of middle-income regions (Iammarino et al., 2017). Another set of measures is adjusted depending on how strong the agglomeration effects are in a region. In metropolitan areas, the policy goal is to preserve the agglomeration, and to this end, it is necessary to support the renewal of economic activities, to foster advanced science, and to prevent congestion. Old industrial regions need to be protected from deglomeration and social erosion by supporting diversification and new activities. The periphery (i.e., remote, rural, and backward regions) needs the stimulation of agglomeration effects. To this end, it is necessary to encourage investment and the creation of new jobs. The measures that are common to all regions are those connecting the center and the periphery through the promotion of infrastructure development (Barba Navaretti and Markovic, 2021).

RUSSIAN MODELS OF POLARIZED AND BALANCED SPATIAL DEVELOPMENT

The regional policy of the USSR can be characterized as largely redistributive. The eastward shift of productive forces was carried out consistently during the entire Soviet period; such initiatives as the Non-Chernozem Zone[7] Development Program appeared only closer to the end of it. The Basic Principles of Regional Policy in the Russian Federation, a 1996 document based on the traditional equalization ideology, set such 20-year goals as "ensuring uniform minimum social standards and equal social protection... regardless of the economic opportunities of regions; equalization of conditions of social and economic development of regions".[8]

The bitter defeat of socialism seemed to have discredited the long-standing equalization policy and set free new ideas. The famous Gref program (2000) was the first one to break with the traditions by formulating the need for a "normal regional policy" designed to replace the special "northern policy." The new policy should "proceed from the fact that the North is an organic part of Russia's common economic space and is therefore subject to the common economic conditions and "rules of the game".[9] It was proposed to abandon the zonal wage coefficients which stimulated the inflow of workers to the North, expand the shift method, and stimulate migration away from the northern regions. These spatially neutral measures sought to increase labor mobility and put an end to distorting price signals.

The ideas of the World Bank were presented to the Russian audience in a popular form a few years before the famous report, in *The Siberian Curse: How Communist Planners Left Russia Out in the Cold* (2003), a bestselling book by Hill and Gaddy, who declared the spatial structure of the Russian economy to be an artificial result of Soviet planning. In this book, the effec-

[7] It is an extensive agricultural and industrial area of the European part of Russia, named by the predominant type of soil.

[8] Decree of the President of the Russian Federation of June 3, 1996 No. 803 On the Fundamental Principles of Regional Policy in the Russian Federation, *Collected Legislation of the Russian Federation*, 1996, N 23, Article 2756.

[9] Main Focus Areas of Social and Economic Policy of the Government of the Russian Federation for the Long Term. https://web.archive.org/web/20100918062948/http://budgetrf.ru/Publications/Programs/Government/Gref2000/Gref2000000.htm.

tiveness of economic activity in a region was put in an original way in relation to its average January temperature.[10] In the spirit of the World Bank's ideas, measures were recommended for supporting mobility (subsidies for residents to leave the regions of the Far North and the removal of the *propiska* restrictions) in order to increase the share of population in warm (i.e., "more productive") regions.

Among the first scholars to formulate the principles of polarized development for Russia were the architect V.L. Glazychev and the philosopher P.G. Shchedrovitskii, who published their report in the proceedings of the Center for Strategic Studies of the Volga Federal District . Referring to some "estimates obtained by researchers of the Brookings Institute," they postulated the inefficiency of Russia's spatial organization and called for "reassembling" the Russian space in terms of territories, as well as industries. The absolutely technocratic Concept of Spatial Development in the Russian Federation presented the spatial organization of the country as a support frame with agglomeration nodes and support regions designed to "hold a large space".[11] This terminology determined the level of discussion around this issue for years. The idea about the fundamental role of agglomerations in economic growth was promoted further by the efforts of urban planners such as the Gyprogor Institute[12] or the KB Strelka Center of Urban Economics[13].

The ideas of place-based regional policy in Russia were supported in the 1990s by the European Commission as part of the TACIS technical assistance program. The outcome of the project "Development of a Regional Policy Aimed at Reducing Economic, Social, and Legal Asymmetry" was the regional policy concept proposed by S.S. Artobolevskii. The concept rejected the sectoral approach and disparate, uncoordinated efforts by federal authorities to address regional problems and proposed a long-term strategy for spatial development. In 2001, the issue of preserving the unity of the country came to the fore, and this goal was put first on the list of regional policy priorities, followed by ensuring social justice and promoting economic development. According to Artobolevskii, policy measures should focus "on raising the weakest territories rather than developing the most promising... areas" (2001). The minimization of regional disparities also was set forth as a goal in the regional development doctrine by S. Sulakshin, V.N. Leksin, and others (Sulakshin et al., 2009).

In Russia, with its long history of territorial planning, the balanced development policy ideas were not perceived as anything new. Perhaps this is why the concept of "agglomerations as growth drivers" has been enthusiastically welcomed. The new "urban development synergy" resource was presented in discussions as a virtually free one; for an economic miracle to happen, one should only let resources gather together in agglomerations! If "urban density provides the clearest path from poverty to prosperity" (Glaeser, 2011), no wonder that such a prospect was welcomed by federal agencies, as it gave them an opportunity to eliminate the burdensome and painstaking work of supporting depressed settlements. In this sense, Russia is not an exception. Rodríguez-Pose (2018) gives evidence that over the last decade, politicians were enthusiastically picking up such ideas and trying to communicate them to inhabitants of problematic regions.

The public space was beaming with powerful metaphors: "regions as locomotives of growth," "cities as drivers of development," and "effective contraction of space." The academic community was fascinated by the increasing popularity of the theory of new economic geography, which, in less than two decades, made its way from the first publications to Paul Krugman's Nobel Prize. The World Bank was also promoting new ideas in a comprehensible format by adapting its 2009 Report for Russia,[14] along with other such publications for countries in Africa, Asia, the Caribbean, and Central Asia. On the other hand, the reports by professional regional economists, who spoke in the language of "optimization of territorial proportions" and "coordination of regional and national economic interests," were not very exciting. Their appeals to increase the degree of processing of mined resources, to diversify the economy of the eastern regions, and to establish cooperative relations between the north and south of Siberia sounded, after many years of repetition, like familiar mantras. Perhaps, that was why the advocates of polarized development were always one step ahead in the debate. Other detachments fighting at the front lines of journalism included the conservatives, who demanded the full return of the Soviet system of support for the northern territories, and the alarmists, who suspected the supporters of polarized development of an attempt on the country's territorial integrity.

For 20 years, the debates about the principles of the Russian regional policy revolved around different versions of the Spatial Development Strategy of the Russian Federation, which were adopted one after another. The weights assigned to efficiency and justice were changing on a regular basis. The adoption in 2017

[10]The authors of the book highly appreciated the contribution of Colonel A.P. Parshev. Back in 1999, he published his book *Why Russia Is Not America*, where he attempted to examine the role of climate and geography in the fate of the Russian economy.

[11]Russia: Principles of Spatial Development, CSS VFD Analytical Report, ed. by V.L. Glazychev and P.L. Shchedrovitskii. http://www.glazychev.ru/projects/2004_ProstRazv/2004_DocladProstRazv_oglav.htm. Accessed July 20, 2021.

[12]http://www.giprogor.ru/analytics/reports.

[13]https://media.strelka-kb.com/gdpcities.

[14]http://hdl.handle.net/10986/13052.

of the Fundamentals of the State Policy of Regional Development in the Russian Federation until 2025 seems to have strengthened the positions of the polarized development advocates. The implementation of this law is expected, e.g., to reduce rather than equalize spatial disparities and to facilitate "further development of the urbanization process, especially large urban agglomerations".[15] On the other hand, the Spatial Development Strategy of the Russian Federation until 2025 (Strategy 2025), adopted in 2019, is aimed at the "reduction of regional disparities in the livings standards and the quality of life of the population"[16] and, emphasizing the fundamental role of the largest agglomerations in ensuring economic growth, this document establishes such priorities the observance of which should lead to a more uniform spatial distribution of economic activity. Thus, both of the key federal documents in the field of regional policy retain certain ambiguity regarding the choice of the prevailing model of spatial development.

Setting out focus areas for spatial development in Russia is accompanied, as a rule, by an intensification of academic and public debate as opposed to, e.g., sectoral strategies. At the stage of discussing Strategy 2025, both developers (Chuguevskaya, 2017) and expert academics spoke out, making suggestions on the content and methodology (Bukhvald, 2016) and watching with dismay the process of changing the priorities of the strategy during its development (Kolomak et al., 2019; Mikheeva, 2018). After the adoption of Strategy 2025, a time came for reflection (Kuznetsova, 2019; Zubarevich, 2019) and disappointment with the result as the spatial development of Russia was again set on a path "that we did not choose" (Leksin, 2019) using a strategy based on the concept of social and economic "dirigisme" (Minakir, 2020).

The current Strategy 2025 has recently been amended to harmonize spatial development. In the latest version the acceleration of economic growth through the development of large and largest agglomerations is supplemented by "balanced spatial development" through the development of settlements of all sizes with the directly opposing goal of "reducing the concentration of businesses and population in metropolitan agglomerations".[17] Thus, the search for a universal formula of spatial development continues.

[15]Decree of the President of the Russian Federation of January 16, 2017 N 13 On Approval of the Fundamental of Regional Development Policy in the Russian Federation for the Period until 2025. http://pravo.gov.ru/laws/acts/4/4951.html/. Accessed November 11, 2019.

[16]Order of the Government of the Russian Federation of February 13, 2019 N 207-r. http://publication.pravo.gov.ru/Document/View/0001201902150042. Accessed November 11, 2019.

[17]Order of the Government of the Russian Federation of June 25, 2022 N 1704-r. http://actual.pravo.gov.ru/text.html#pnum=0001202206280075. Accessed July 11, 2022.

CONCLUSIONS

We looked into the three streams of discussion on the issues of spatial development, which took place over the past 2 decades in different yet related fields of regional science. The question about the accelerating schrinkage of space with time appears to be the most abstract one, but, as it turns out, it was brought to life by the actual achievements of technological progress in transport and communications, by changes in the organization of production processes, and by structural differences between countries and between regions within countries in a situation of persisting social and economic disparities. Space successfully resists schrinkage, despite the apparent decrease in transport tariffs. The process of space schrinkage develops unevenly, creating conditions for further deepening of interregional differentiation.

The systematic failures of states in their attempts to address this issue by means of the traditional redistributive regional policy gave rise to disappointment in the latter and stimulated the emergence of two influential schools of experts preaching the principles of place-neutral and place-based policy. The World Bank report set the task of "compressing" the economic space, by facilitating migration between poor and rich regions. Barca's report proposed to look for underutilized growth potential in settlements of any rank, which fill space and create diversity. The debate between the schools revealed that neither the first nor the second approach contributes to achieving the goals of equality and maximum growth of national economies. Over time, clarifications gradually appeared, as well as compromise variants of regional policy.

Russia entered the 21st century and left its system of centralized control over spatial development behind. For the next 20 years, it kept searching for market-based methods to achieve the same goals of regional equality and national economic efficiency. A scholarly discussion unfolded between adherents of the polarized development model, a new one for Russia at that time, who were under the undoubted influence of the space-neutral approach with its focus on the potential of agglomerations, and adherents of the balanced growth model, which was branded as outdated. It should be noted that important documents in the modern Russian system of strategic planning are passed in such a way that the academic community participates in the critical discussion of the draft strategies proposed by the central government at different stages of readiness, sometimes in the form of information leaks. The latter stimulate a flux of expert assessments and proposals from academics, which helps make some corrections to the strategies but has virtually no effect on the main provisions of the document. Academic debates took place around the changing versions of the spatial development strategies, which were often based on opposing principles. Given the free movement of scholars and free circulation of

advanced knowledge, these debates helped to clarify theoretical positions and raise the level of the discussion.

FUNDING

This work was supported by the Russian Foundation for Basic Research, project no. 20-110-50400 "Efficiency and Equality: Twenty Years of Discussion on Spatial Development."

CONFLICT OF INTEREST

The author declares no conflict of interest.

REFERENCES

Artobolevsky, S.S., Regional policy aimed at reducing territorial economic and social disproportions in the Russian Federation: draft concept, *Reg.: Ekon. Sotsiol.*, 2001, no. 1, pp. 4–34.

Barba Navaretti, G. and Marcovic, B., What Are We Building On? Place-based policies and the foundations of productivity in the private sector, Background paper for the OECD-EC High-Level Expert Workshop Series "Productivity Policy for Places," OECD, 2021.

Barca, F., *An Agenda for a Reformed Cohesion Policy: A Place-Based Approach to Meeting European Union Challenges and Expectations*, Brussels: European Commission, 2009.

Barca, F., McCann, P., and Rodríguez-Pose, A., The case for regional development intervention: Place-based versus place-neutral approaches, *J. Reg. Sci.*, 2012, vol. 52, pp. 134–152. https://doi.org/10.1111/j.1467-9787.2011.00756.x

Beyer, R.C., and Smets, F., Labour market adjustments and migration in Europe and the United States: how different? *Econ. Policy*, 2015, vol. 30, no. 84, pp. 643–682. https://doi.org/10.1093/epolic/eiv011

Blainey, G., *The Tyranny of Distance*, Melbourne: MacMillan, 1966.

Boisso, D. and Ferrantino, M., Economic distance, cultural distance, and openness in international trade: Empirical puzzles, *J. Econ. Integration*, 1997, vol. 12, no. 4, pp. 456–484.

Bolton, R., Place prosperity vs people prosperity' revisited: An old issue with a new angle, *Urban Stud.*, 1992, vol. 29, no. 2, pp. 185–203. http.//doi.org/10.1080%2F00420989220080261

Bukhvald, E.M., What should be the spatial development strategy for Russia?, *Ekon. Vozrozhdenie Ross.*, 2016, vol. 47, no. 1, pp. 41–52.

Busse, M., Tariffs, transport costs and the WTO Doha Round: The case of developing countries, *The Estey Centre J. Int. Law and Trade Policy*, 2003, vol. 4, no. 1, pp. 15–31.

Cairncross, F., *The Death of Distance: How the Communications Revolution Is Changing Our Lives*, Boston: Harvard Business School Press, 1997.

Carlberg, M., A neoclassical model of interregional economic growth, *Reg. Sci. Urban Econ.*, 1981, vol. 11, no. 2, pp. 191–203. https://doi.org/10.1016/0166-0462(81)90003-X

Carrere, C., de Melo, J., and Wilson, J., The distance puzzle and low-income countries: An update, *J. Econ. Surv.*, 2012, vol. 27, no. 4, pp. 717–742. https://doi.org/10.1111/j.1467-6419.2011.00715.x

Cheshire, P., Nathan, M., and Overman, H., *Urban Economics and Urban Policy: Challenging Conventional Policy Wisdom*, Cheltenham: Edward Elgar, 2014.

Chuguevskaya, E.S., On territorial and spatial aspects of the spatial development strategy of the Russian Federation, *Academia. Arkhitektura i Stroitel'stvo*, 2017, no. 1, pp. 67–71.

Coe, D.T., Subramanian, A., and Tamirisa, N.T., The missing globalization puzzle: Evidence of the declining importance of distance, *IMF Staff Papers*, 2007, vol. 54, no. 1, pp. 34–58. https://doi.org/10.1057/palgrave.imfsp.9450003

Conconi, P., Magerman, G., and Plaku, A., The gravity of intermediate goods, *Rev. Ind. Organization*, 2020, vol. 57, no. 2, pp. 223–243. https://doi.org/10.1007/s11151-020-09762-2

Disdier, A.-C. and Head, K., The puzzling persistence of the distance effect on bilateral trade, *Rev. Econ. Stat.*, 2008, vol. 90, no. 1, pp. 37–48. https://doi.org/10.1162/rest.90.1.37

Duranton, G. and Venables, A.J., Place-Based Policies for Development, Policy Research Working Paper, No. 8410, 2018. https://doi.org/0.1596/1813-9450-8410

Ehrlich, M. and Overman, H.G., Place-based policies and spatial disparities across European cities, *J. Econ. Perspectives*, 2020, vol. 34, no. 3, pp. 128–149. https://doi.org/10.1257/jep.34.3.128

Eichengreen, B. and Irwin, D.A., The role of history in bilateral trade flows, in *The Regionalization of the World Economy*, Frankel, J.A., Ed., Chicago: University of Chicago Press, 1998.

Florida, R.L., *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life*, New York: Basic Books, 2002.

Friedman, T.L., *The World Is Flat: A Brief History of the Twenty-First Century*, New York: Farrar, Straus and Giroux, 2005.

Glaeser, E., *Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier*, London: Macmillan, 2011.

Graham, D. J., and Gibbons, S., Quantifying wider economic impacts of agglomeration for transport appraisal: Existing evidence and future directions, *Econ. Transportation*, 2019, vol. 19, Article no. 100121. https://doi.org/10.1016/j.ecotra.2019.100121

Head, K. and Mayer, T., Gravity equations: workhorse, toolkit, and cookbook, in *Handbook of International Economics*, Gopinath, G., Helpman, E., and Rogoff, K., Eds., Amsterdam: Elsevier, 2014, vol. 4, pp. 131–195.

Henning, M., Time should tell (more): Evolutionary economic geography and the challenge of history, *Reg. Stud.*, 2019, vol. 53, no. 4, pp. 602–613. https://doi.org/10.1080/00343404.2018.1515481

Hill, F. and Gaddy, C., *The Siberian Curse: How Communist Planners Left Russia Out in the Cold*, Washington, DC: Brookings Institution Press, 2003.

Iammarino, S., Rodríguez-Pose, A., and Storper, M., Why regional development matters for Europe's economic future, Working Papers of the Directorate-General for Regional and Urban Policy, WP 07/2017, 2017.

Janelle, D., Spatial reorganisation: A model and concept, *Ann. Assoc. Amer. Geographers*, 1969, vol. 59, no. 2, pp. 348–364. https://doi.org/10.1111/j.1467-8306.1969.tb00675.x

Kivisto, P., Time-space compression, in *The Wiley-Blackwell Encyclopedia of Globalization*, Ritzer, G., Ed., Hoboken, NJ: Blackwell Publishing Ltd., 2012. https://doi.org/10.1002/9780470670590.wbeog557

Kolomak, E.A., Kryukov, V.A., Melnikova, L.V., Selivers-tov, V.E., Suslov, V.I., and Suslov, N.I., Spatial development strategy of Russia: Expectations and realities, *Reg. Res. Russ.*, 2019, vol. 9, no. 2, pp. 155–163. https://doi.org/10.1134/S2079970519020114

Kuznetsova, O.V., Spatial development strategy of the Russian Federation: Illusion of solutions and reality of problems, *Prostranstvennaya Ekon.*, 2019, vol. 15 no. 4, pp. 107–125. https://doi.org/10.14530/se.2019.4.107-125

Lall, S.V., Territorial development policy: A practitioner's guide (English). Washington, D.C.: World Bank, 2009. https://openknowledge.worldbank.org/handle/10986/12698. Cited November 15, 2021.

Leksin, V.N., Roads that we do not choose (on the government's "Strategy for the spatial development of the Russian Federation for the period up to 2025"), *Ross. Ekon. Zh.*, 2019, no. 3, pp. 3–24. https://doi.org/10.33983/0130-9757-2019-3-3-24

Litvine, A.D., The annihilation of space: A bad (historical) concept, *Histor. J.*, 2022, vol. 65, no. 4, pp. 871–900. https://doi.org/10.1017/S0018246X21000601

Maier, G. and Trippl, M., Regional policy in a globalized economy, in *Globalism and Regional Economy*, Egashira, S., Ed., Oxon and New York: Routledge, 2014, pp. 1–15.

McCann, P., *The UK Regional-National Economic Problem: Geography, Globalisation and Governance*, London: Routledge, 2016.

McCann, P. and Rodríguez-Pose, A., Why and when development policy should be place-based, in *OECD Regional Outlook 2011: Building Resilient Regions for Stronger Economies*, Paris: OECD Publishing, 2011. https://doi.org/10.1787/9789264120983-en

McCann, P. and Shefer, D., Location, agglomeration and infrastructure, *Papers Reg. Sci.*, 2003, vol. 83, no. 1, pp. 177–196. https://doi.org/10.1007/s10110-003-0182-y

Melitz, J., North, south and distance in the gravity model, *Eur. Econ. Rev.*, 2007, vol. 51, pp. 971–991. https://doi.org/10.1016/j.euroecorev.2006.07.001

Minakir, P.A., Spatial development strategy of the Russian Federation for the period up to 2025: Political response to the challenges of the 21st century, in *Vyzovy i politika prostranstvennogo razvitiya Rossii v XXI veke* (Challenges and Policy of Russia's Spatial Development in the 21st Century), Kotlyakov, V.M., Shvetsov, A.N., and Glezer, O.B., Eds., Moscow: KMK, 2020, pp. 346–362.

Mikheeva, N.N., Spatial development strategy: A new stage or repetition of old mistakes?, *EKO*, 2018, vol. 527, no. 5, pp. 158–178. https://doi.org/10.30680/ECO0131-7652-2018-5-158-178

Moretti, E., Local labor markets, in *Handbook of Labor Economics*, Card, D. and Ashenfelter, O., Eds., Amsterdam: Elsevier, 2010, Vol. 4B.

Neumark, D. and Simpson, H., Place-based policies, in *Handbook of Regional and Urban Economics*, Duranton, G., Henderson, J.V., and Strange, W.C., Eds., Amsterdam: Elsevier, 2015, vol. 5b, pp. 1197–1287. https://doi.org/10.1016/B978-0-444-59531-7.00018-1

Nijkamp, P. and Ratajczak, W., Gravitational analysis in regional science and spatial economics: A vector gradient approach to trade, *Int. Reg. Sci. Rev.*, 2021, vol. 44, nos. 3–4, pp. 400–431. https://doi.org/10.1177/0160017620980519

O'Brien, R., *Global Financial Integration: The End of Geography*, London: Royal Institute of International Affaits, Pinter, 1992.

OECD Regions and Cities at a Glance 2020, Paris: OECD Publishing, 2020. https://doi.org/10.1787/959d5ba0-en

Ottaviano, G. and Thisse, J.-F., Integration, agglomeration and the political economies of factor mobility, *J. Public Econ.*, 2022, vol. 83, no. 3, pp. 429–456. https://doi.org/10.1016/S0047-2727(00)00166-3

Parr, J.B., Neglected aspects of regional policy: A retrospective view, *Envir. Planning C: Government and Policy*, vol. 33, pp. 376–392. http.//doi.org/1068%2Fc1371r

Peck, J. and Sheppard, E., Worlds apart? Engaging with the world development report 2009: Reshaping economic geography, *Econ. Geogr.*, 2010, vol. 86, no. 4, pp. 331–340. https://doi.org/10.2307/40929676

Pirie, G., Distance, in *International Encyclopedia of Human Geography*, Kitchin, R., and Thrift, N., Eds., Oxford: Elsevier, 2009, Vol. 1, pp. 242–251.

The gravity model: What does the data say about international trade and distance between countries?, PwC, 2017. http://www.iberglobal.com/files/2018/pwc-the-gravity-model.pdf. Cited July 15, 2021.

Rietveld, P. and Vickerman, R., Transport in regional science: The "death of distance" is premature, *Papers Reg. Sci.*, 2004, vol. 83, pp. 229–248. https://doi.org/10.1007/s10110-003-0184-9

Rigg, J., Bebbington, A., Gough, K. V., Bryceson, D. F., Agergaard, J., Fold, N., and Tacoli, C., The World Development Report 2009 'reshapes economic geography': Geographical reflections, *Trans. Inst. Brit. Geographers*, 2009, vol. 34, no. 2, pp. 128–136. https://doi.org/10.1111/j.1475-5661.2009.00340.x

Robertson, P.E. and Robitaille, M.-C., The tyranny of distance and the gravity of resources, *Econ. Record*, 2017, vol. 93, no. 303, pp. 533–549. https://doi.org/10.1111/1475-4932.12368

Rodríguez-Pose, A., The revenge of the places that don't matter (and what to do about it), *Cambridge J. Reg., Econ. Society*, 2018, vol. 11, no. 1, pp. 189–209. https://doi.org/10.1093/cjres/rsx024

Seravalli, G., *An Introduction to Place-Based Development Economics and Policy*, Springer Cham, 2015.

Smith, A., *An Inquiry into the Nature and Causes of the Wealth of Nations (The Glasgow Edition of the Works and Correspondence of Adam Smith ed., Vol. 2)*, Campbell, R.H. and Skinner, A.S., Eds., Oxford: Oxford University Press, 1976.

Sulakshin, S.S., Leksin, V.N., Malchinov, A.S., Gligich-Zolotareva, M.V., Kolosov, V.A., Borisova, N.A., and Khavansky, N.A., *Doktrina regional'nogo razvitiya Rossiiskoi Federatsii. Maket-proekt* (Doctrine of Regional Development of the Russian Federation. Layout Project), Moscow: Nauchnyi Proekt, 2009.

The Handbook of Evolutionary Economic Geography, Boschma, R. and Martin, R., Eds., Cheltenham; Northampton, MA: Edward Elgar, 2010.

Tlusta, A., *The Effect of Distance on International Trade: A Meta-Analysis*, Prague: Charles Univ. in Prague, 2015.

Tobler, W.R., A computer movie simulating urban growth in the Detroit region, *Econ. Geogr.*, 1970, vol. 46, no. 2, pp. 234–240.

Todes, A. and Turok, I., Spatial inequalities and policies in South Africa: Place-based or people-centred?, *Progress in Planning*, 2018, vol. 123, pp. 1–31. https://doi.org/10.1016/j.progress.2017.03.001

Tranos, E. and Nijkamp, P., The death of distance revisited: Cyber-place, physical and relational proximities, *J. Reg. Sci.*, 2013, vol. 53, no. 5, pp. 855–873. https://doi.org/10.1111/jors.12021

Warf, B., Excavating the prehistory of time-space compression, *Geogr. Rev.*, 2011, vol. 101, no. 3, pp. 435–446. https://doi.org/10.1111/j.1931-0846.2011.00106.x

Winnick, L., Place prosperity vs people prosperity: Welfare considerations in the geographical redistribution of economic activity, in *Essays in Urban Land Economics*, Los Angeles, CA: Real Estate Research Program, UCLA, 1966, p. 273–283.

World Development Report 2009: Reshaping Economic Geography, Washington, D.C.: World Bank, 2009.

Zubarevich, N.V., Spatial development strategy: Priorities and tools, *Vopr. Ekon.*, 2019, no. 1, pp. 135–145. https://doi.org/10.32609/0042-8736-2019-1-135-145

Translated by A. Kobkova