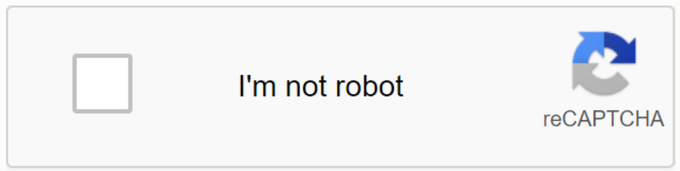

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Core periphery model of regional development

Jumping into the main content Skip to living table of contents reference entry first online: June 05, 2019DOI: 1 Mentioning 3.3k Download Center-periphery Centripetal and centrifugal models forces regional differences in Regional Polarization Core-periphery imbalances and regional differences of numbers prominently on the agenda of some disciplines, resulting from its huge impact on economic and social development around the world. In sociology, international relations, and economics, this concept is very important in the explanation of economic exchange. There are some countries that play a dominant role in world trade (sometimes described as the Global North), while most countries have secondary or even tertiary positions in world trade (Global South). In addition, when we discuss global, continental, regional, and national economies, we can present smaller territories and even territorial units (such as subregions, provinces, districts, or districts) that have higher wages than some un developed areas in the same larger areas in focus. Such regional inequality and injustice are the main themes of the core-fringe model, which focuses on the tendency of economic activity to concentrate around some important points. It seeks to explain spatial inequalities or imbalances that can be observed at all levels or scales by highlighting the role of horizontal and vertical relationships between different entities from city and city level to global scale. The absence of a core-fringe structure implies that in spatial dimensions (space and place), socioeconomic development is usually uneven. From such a geographical perspective, the region known as the advanced core in various fields, while other regions described as fringes serve as social, economic, and political backstages, backyards, and sources of supply or - in some cases - even degradation and decline. In addition, the rate of development has a negative correlation with distance from the core. The economies of states that have gone through various stages of development at the earliest and at the fastest pace have become rich core regions and growth poles. Countries and territories where this process has been slower to become or remain a poor suburb. The critical questions raised in the discussion regarding the core-periphery model focused on the results and outcomes of the nonproforan and asymmetry of relationships and the value of various indicators related to the level of regional development. The terms center and core are often used as synonyms. Peripherals are perceived to be negative, and peripheral regions are regions that can produce challenges for the core and can even political intervention from time to time (e.g., regions with agricultural structures, areas that lack natural resources, areas located far from major transport links, depopulation areas, and areas where large-scale enterprises have been liquidated resulting in mass unemployment and other social problems). Periphery is associated with distance, difference, and reliance on external aid and the phenomenon of unfavorable marginalization and deprivation. However, at the same time, there is no uniform or standardized development pattern that can enable the resolution of the problem of the development gap of un developing and developing countries and regions. As such, there are many efforts to identify factors that contribute to uneven development around the world. There is an intense focus on the conflicting relationships between the center and the periphery, often reduced to the simple dualism of the dominant centers and the weak fringes. This model appeals to groups such as geographers, regional studies scholars, city planners, economists, sociologists, as well as practitioners and experts in the field of development studies. Various theories and policy papers to be discussed in the next section of this chapter have tried to explain the determinants of the layout of development. We will first explain the origin of the core-periphery model that may be associated with Raúl Prebisch (1950). Later we will present a human geography approach in the field of regional studies from John Friedmann (1966). Furthermore, attention will be focused on certain elements of the theory of the world system as proposed by Immanuel Wallerstein (1974). Finally, at the end of the chapter, we discuss the latest contributions to mainstream economics from Paul Robin Krugman (1981, 1991, 1998, 2011). The core-periphery concept was developed in the 1950s by Prebisch within the framework of the United Nations Economic Commission for Latin America (ECLA; esp. Comisión Económica para América Latina y el Caribe – CEPAL). Prebisch began using core and fringe terminology already in 1929. In his report for the ECLA titled The Economic Development of Latin America and its Principal Problems - often referred to simply as the Prebisch Manifesto - he described these ideas as two broad and contrasting regional categories, namely economically developed centers and undeveloped fringes. These terms are connected but are also defined by various internal features such as wage levels, production structures, export composition, and other similar attributes. The concept of Prebisch is still often presented in literature as the foundation of dependency theory. Prebisch found that increased productivity - wherever they occur - tends to help manufacturing centers more than the agricultural and regional sectors that export primary goods and resources. Prebisch theory and model originated in the developed world (center) does not apply in an undeveloped world (periphery) due to different historical situations and experiences (Prebisch 1950). Importantly, Prebisch's idea had a tremendous impact on economic policy and strands of development thinking around the world. He highlighted that er0-10 exchanges led to the flow of surplus values from the suburbs to the core regions. Prebisch also noted that this problem has gone unnoticed for a long time, at least in social science, because of the previously used term and all other variants of the rich-poor dichotomy. The peripheral-core model also appealed to John Friedmann. He further developed this concept in 1966 by underlining the role of spatial distance from the core. His approach was sometimes interpreted and combined with françois Perroux's (1955) growth pole theory (focusing on input-output interconnectedness) as well as with the works of Albert O. Hirschman (1958) which, among other things, illustrated the trickle-down effect in disproportionate development theory. In addition, it can be noted that friedmann's model incorporates elements of the export-based approach presented by Douglass C. North (1955) and part of Gunnar Myrdal's theory (1957) of cumulative and circular causes with the effects of deployment (where development spreads from city to suburb and all adjoining areas) and backwash effects (where urban development tends to gather resources and labor away from the surrounding area and which can degrade these places). Friedmann's version of the core-suburban model includes an explanation of why some inner-city areas enjoy considerable prosperity, while others show signs of urban deprivation and poverty, even as urban areas, in general, have some advantages over peripheral rural areas. The regional development model thus focuses on spatially diversified development. It recognizes the tendency by the most competitive entities to find their manufacturing and service activities in the most advanced regions. Economic centers (core) dominate over peripheral areas not only in the economic sphere but also in the political and cultural spheres. The point, which is usually a metropolitan area, contributes to the development of the fringe even as, at the same time, it subordinates it in the social and economic dimensions. The center usually has the potential for innovation (improvement) and high growth, which forms the geographical diffusion of innovation (Rogers 1962, 2003). At the same time, according to Friedmann, peripheral areas experience lagging growth or even stagnation and can rely on growth driven primarily by the demands of core areas for resources. We should also mention further areas proposed by Friedmann (1966), where the core and suburbs are divided into upward transitions (advanced or initial), downward transition region, and resource border region. The upward transition area is a growth area spread over smaller centers rather than at the core. Downward transition areas are characterized by depleted resources, low agricultural productivity, or outdated industries. The resource border area is described as a newly colonized area that was brought to the production network for the first time. For example, less accessible areas of the city may experience a backwash effect with limited investment. The effect is particularly noticeable when the inner city is close to the newly developed central business district, concentrating the main poverty wealth gap in a relatively tight space. Friedmann's theory is sometimes described as similar to the three-sector model (or Petty Law) proposed in economics by Allan Fisher, Colin Clark, Jean Fourastié, and Daniel Bell (see review by Ehrig and Staroske 2009). Friedmann's version is called a core-fringe model of four regional development stages that includes the following stages: pre-industrial, transitional, industrial, and postindustrial. The pre-industrial stage refers to the primary sector (agricultural) economy, which is characterized by limited economic activity in small areas and small-scale residential structures with small units. Every aspect of pre-industrial society is relatively isolated, small units remain scattered, and economic entities such as populations and traders have low mobility. The transition stage is illustrated by the increasing concentration of the economy in the core fostered by capital accumulation and industrial growth. The dominant center emerged in the urban system and became its growth pillar. Increased trade and mobility at this stage, but the workspace of daily existence is still local because people's personal mobility remains limited. The fringe sits at this point entirely subject to the center of political and economic dominance. At the industrial stage, manufacturing (secondary sector) is growing with increasing employment of people migrating from rural to urban areas. These changes then also resulted in a shift from using human labor to mechanization and production automation. Thus, the core-fringe model is also used to describe changes in the labor market and in the labor economy literature. This model is also referred to as the double labor market theory and as an inside-out theory (Klimczuk and Klimczuk-Kochańska 2016). In general, both theories assume that the labor market is divided into several segments, distinguished from each other by separate rules systems, job requirements, and different skills. For example, human resources policies include preferences (in key segments) to recruit male workers for managerial positions by offering training, pay benefits, promotions, and job security. At the same time, the external labor market is dominated by women and minorities and offers low-paying, low-status jobs. Furthermore, at the industrial stage, through the process of economic growth and diffusion, other growth centers emerge. The main reason for the deconcentration is the increasing production costs related to labor and land in the core areas. This diffusion is related to increased interaction between urban system elements and transportation infrastructure development. The fourth stage, that is, the postindustrial stage, saw the increasing demand for labour in the service (tertiary sector). It is assumed that this stage is characterized by economic spatial integration and the achievement of balance. The urban system became fully integrated, and inequality was significantly reduced. The distribution of economic activities is focused on the establishment of specialization and division of labor related to strong flows along transportation corridors. Friedmann believes that the allocation of economic activity should achieve optimal, equilibrium, and stability. That doesn't mean that trade and population mobility should be reduced. As far as various fields specialize in certain functions, there will be a division of labor between regions. The integrated model predicts the cyclogenic movement of populations largely due to age factors: young people studying in large cities, families settling in the suburbs, and older adults looking for competitive and peaceful rural environments. In short, according to Friedmann's model, the development potential of a particular region or country is determined by the stimulating effects of regional growth centers, infrastructure development, and the provision of support from central areas to less developed areas. The advantage of this model is that the assumption of this theory also applies to different spatial scales, that is, from local and regional to national and global scale. The core-periphery model concept is also part of Wallerstein's theory he proposed in the 1970s to explain the events and functions of capitalism while also trying to interpret the phenomenon of globalization. This theory assumes that the world system is a specific spatial and temporal entity, including various political and cultural units that function based on certain specific principles. An important element of this theory is the core-fringe hierarchy in which differences of importance and inequality result from the vibrant central dominance over weak fringes. On other issues, this theory is very similar to Prebisch and Friedmann's approach. In fact, it is often considered identical to the concept of Prebisch. However, in theory, center, and periphery are closely related together in material and sociocultural terms. Thus, while the theory of dependency only shows that one area depends on the other, here the two will not function that way without the other. Wallerstein points out that the core regions are innovative and play an active role in international trade, export capital, generate high income, and have high productivity and political system stability. The bottom line is the product exchange site between the monopoly zone and the free market and the profit flow to the first one. Peripheral areas are less innovative, have low income and productivity, depend on capital imports, have a small role in international trade, and are politically unstable. Therefore, in this approach, peripherals are somewhat dependent on the centers and disadvantaged by erquifer trade provisions. In addition, Wallerstein (1974) distinguishes semi-fringes that are interpreted as a kind of buffer between the center and the periphery. Even if semi-peripheral countries and regions experience the highest mobility, their potential promotion to core regional status is decided primarily by international or government intervention. Some of the previous semi-peripherals were central areas, while some have advanced from the periphery. In Wallerstein's opinion, the suburban and semi-suburban states that build for comparative advantage on cheap labor stand to lose the investment so keen. Labour costs will increase on a timely scale as rural resources deplete. Thomas D. Hall et al. (2011) further expanded and modified the theory of the world system, for example, with a view to a pre-capitalist society. The peripheral-core differentiation focuses here on various sociopolitical groups that conduct active exchanges. Peripherals thus have a more significant impact on the center than presented in the original concept of the core-fringe hierarchy. In addition, semi-peripherals are characterized here as zones of innovation. Krugman, a Nobel laureate economist, underscores that scandal that economists have ignored the core-fringe model for years (Krugman 1998: 13). He used several categories and terminology primarily from Wallerstein (Krugman 1981: 149) and combined the idea of a core-fringe model with some assumptions of classical location theory. The first theory included Johann Heinrich von Thünen's model (1825) of the dual economy that covered the city centre and its suburbs. Some other assumptions come from the work of Alfred Marshall (1879, 1890) who considered the importance of the relationship between industrial development and large local markets. Also based on international trade theory, Krugman thus developed a economic geography. In Krugman's theory, the increase in revenue in the core development area is partly at the expense of peripheral areas. It is also important that the process of globalization leads to an inportation in development between regions and countries and that this unproportation exists due to the progress (deepening) of the international integration process. The standard international exchange model shows that market integration can result in losses for some countries but lead to an increase in the revenues of most countries involved in the exchange. A central element of this model is the mobility of manufacturing workers observed due to the differential of interregional wages. In addition, companies tend to look to find their production in the largest markets as it can help them to save on shipping and other combined costs that must be involved if they want to sell at a distance. The size of the market is the result of the population and their income level. Thus, important indicators refer to the quantity and quality of work available. If a large number of manufacturing companies concentrate on either region, this will increase the number of jobs and the availability of goods produced there. As a result, employee incomes in the region are increasing, which will lead to the migration of other employees to this area. More and more employees, and thus consumers, are increasing the size of the market that can consume goods produced there. Given the cost of transportation, the region in question thus becomes the most profitable location for the company. The geography of the new economy also illustrates two different forces: centrifuges and centrifuges (Krugman 1991). Centripetal strength is associated with agglomeration. Among these, we can find market size, worker mobility, and positive external effects. This power results in a cumulative-circular, different, and asymmetric development model in which one region reaches core status while the other becomes a fringe. Centrifugal strength is a factor that does not move, for example, natural resources, competition, and adverse external effects. If one of these forces is dominant, there will be deep interregional differences. Krugman (2011) also considers three factors that can change the relationship between centrifugal strength and centrifuges. This is (1) economies of scale in industrial production, (2) transportation costs, and (3) demand for industrial goods. With a view to these forces, it is possible to conceptualized the circular cause centripetal governance mechanism described by Krugman as a situation when initially employees were attracted by the company, but then the same employees who were consumers attracted new companies to the region. Krugman convincingly that the process of stronger concentration is stronger strength conducive to dispersion. This usually leads to polarization or at least to the creation of different variations in the level of socioeconomic development in space. It should be noted this new thinking trend takes into account the spatial aspects of socioeconomic development. This theory has broad influence in various areas of study, such as urban and regional studies, international trade, development studies, and industrial organizations. Spatial inequality of socio-economic development process resulted in the emergence of marginalized areas (suburbs) that were mainly rural areas. Peripherality is a complex and multidimensional concept. It has relative character: identification and classification of specific areas as peripherals depending on the criteria adopted and reference points. In general, peripheral assessments are negative and emphasize traits such as backwardness, dependency, marginalization, and deprivation. States and territories use a variety of public intervention mechanisms under slogans fighting for social and territorial cohesion. The effects of this effort, however, are far from satisfactory. A review of the theory and concepts of the development of selected regions allows us to demonstrate various causes of peripherality, although many of the theoretical concepts discussed relate to this only indirectly. Cumulative causal phenomena result in simultaneous negative phenomena occurring in poor and peripheral areas, whose relationships and interconnections lead to permanent exclusion and marginalization. It is challenging to escape such road dependency, and it is almost impossible to achieve this without outside interference (Magnusson and Ottosson 2009). On the other hand, it should be noted that spatial unevenness is a feature of socioeconomic development, which is an inevitable phenomenon. Spatial diversity of socioeconomic development, especially in international terms, can also lead to the use of so-called latecomer gains or leaps based on economic benefits resulting from the negligence of certain stages of development (Yap and Rasiah 2016). Economically retreating entities (e.g., countries) can avoid unfavorable processes and can focus on copying only tested ready-to-eat solutions, without incurring costs associated with searching to find these solutions (for example, in terms of technology and innovation). From a historical perspective, the core-periphery model is related to the process of industrialization and urbanization that deepens the divide between the core and the periphery. Areas with attractive geographic and communication locations benefit from industrialization and become core regions that attract economic entities looking for economies of scale, exerting demand for increased amounts of labor resources, attracting external capital, effectively effectively for these

resources with periphery. As a result, in other extreme peripheral areas established that have lost most of their labor resources and that do not appeal to external capital due to the monofunctional structure of the local economy. Most rural areas are in this group, except those located near large urban centers. The core area is also a cluster of economic activities, sources of innovation, and meetings of innovation creators sometimes described as creative classes (Florida 2002, 2017). Excessive fees, especially to introduce technological innovations, are a barrier to their transfer to peripheral areas (Klimczuk and Klimczuk-Kochańska 2015). Costs including financial investment and worker training effectively undermine the diffusion effect (spread or spill) of technical advances and knowledge. Insufficient endogenous potential (in terms of human resources and social capital) to absorb innovation also intensifies adverse economic and social impacts in peripheral areas. Further open discussion of peripheral causes is needed as well as more awareness of the need and potential for positive responses to related social, economic, and political challenges. The role of global economic organisations such as the G20, the Organisation for Economic Co-operation and Development (OECD), and the World Economic Forum (WEF) can also pay attention to this. Most of the intergovernmental organizations in question claim that they want to reduce global inequality and solve the problem of poverty, even as they are subject to criticism of policies and decisions that apply to maintain the status quo (Held and McGrew 2007). Ehrig, D., & Staroske, U. (2009). Service gap and three-sector hypothesis (Petty law): Is this concept out of fashion or a tool to improve well-being? In D. Harrisson, R. Bourque, & G. Széll (Eds.), Social innovation, social economy and world economic development (pp. 261–278). Frankfurt am Main: Peter Lang.Google ScholarFlorida, R. (2002). 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