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GEOGRAPHICAL CONCENTRATION OF FOREIGN DIRECT INVESTMENT IN ECONOMIC THEORY

Introduction

Foreign direct investment (FDI), as defined by the Organisation for Economic Co-operation and Development (OECD), foreign direct investment (FDI) is defined as an investment made by a resident of one country to achieve long-term benefits in an enterprise of another country. The minimum value regarding the shares held by a direct investor is at least 10% of the shares or votes at the general meeting of shareholders (Kosztowniak 2018). For a country receiving foreign direct investment, it is important how companies are distributed in the country's geographical space, thanks to which, among other things, disproportions in individual regions' development can be minimised. On the other hand, the uneven distribution of foreign investment in the geographical space may cause differentiation of regions in terms of economic development level (Krajewska 2018).

In this article, attention is focused on the locational factors that determine an optimal location, which classical location theorists have formalised.

Theories of the spatial location of economic activity

Location theories have a micro-and macroeconomic character. The microeconomic dimension concerns a single production or service facility, while the macroeconomic dimension touches the spatial economic theory (Parysek 2001). The literature on FDI mostly focuses on the location strategies of multinationals at the level of countries, which only consider the country's general characteristics receiving foreign capital and the home country (Cieřlik 2005). When analysing economic activity distribution, including FDI in the regional context, theoretical frameworks, referring to location theory, are most often

considered. Location theory dates back to the early 19th century and originates from the German tradition in classical economics (Martyniuk 2016).

The precursor of the classical theory of business location is considered the representative of German classicism Thünen (1826), the author of the theory of land rent and land use. Thünen analysed the location decisions made by peasants regarding the distribution of particular crops in cities' space (Cieślik 2005). Thünen created a theory of the location of agricultural production called Thünen's rings (circles). According to the circle's theory, more efficient production types are located close to large cities' markets. Thünen further developed the idea of land rents. He pointed out the dependence of the decreasing level of annuity on the increasing distance of a farm from the market and related transport costs (Bórawski 2010). According to Thünen, the free economy dominates in the first circle, and in the zone of this circle, all goods can be produced, but with a focus on the production of primarily perishable goods due to the possibility of their fast transport to the urban market. The next circle is the forestry zone, which was also very important because it was used as a building material and fuel and its transport costs were relatively high. Therefore, the forest areas are located in close proximity to the city centre. The cereal-growing zone is located next. At the greatest distance from the city centre, where transport costs exceed profits, animal husbandry becomes the most profitable because livestock products' high value can compensate for their transport costs (Siekierski 2008). Thünen studied the effect of transport costs on land rent and found that the remoteness of land from the centre decreases land rent, which affects the location of production (Kundera 2004). Agricultural land prices are highest when located closest to the city centre (Koomen, Buurman 2002). The main reason for the emergence of agricultural zones is primarily the producers' desire to maximise the land rent per unit of land area, i.e., obtain the maximum difference between sales revenue and transport costs (Wieloński 2004). According to Thünen, transport costs are the most important factor determining location. Over time, this theory lost its relevance due to economic development, including rail, waterway and inland waterway transport, which influenced the distortion of transport costs (Brdulak et al. 2014). Thünen assumed that the shortest straight-line connections carry out transport, transport costs are directly proportional to distance, and sellers conduct business in a free competition seeking to maximise profit. Farmers, on the other hand, sell products on the market and do not exchange among themselves. Demand for land is highest when it is located closest to the city centre due to lower transport costs, which allows for the highest land rent and the highest production level (Domański 2006).

This oldest strand in location theory explains the issues surrounding the location of different agricultural production types around a single, isolated market, the city before the industrial revolution. It assumed that the different agricultural products differed in terms of the cost of transporting them to the city, the amount

of yield, while the land was equally fertile everywhere. Furthermore, he assumed that the intensity of cultivation of each product could vary. According to his theory, land rent is determined endogenously and is the basic factor determining individual crops' location (Bilczak, Zacharow 1999).

Despite his important contribution to the history of economic thought, Thünen's achievements remained invisible for centuries. It was only in the 1960s that Thünen's model experienced its revival. Then Alonso reinterpreted it in the modern city's context, replacing the central city square with a so-called central business district where employment is concentrated and replacing peasants with people commuting to work in the city centre. This modernised model of the monocentric city by Alonso (1964), like Thünen's original model, also points to the formation of concentric rings that describe the use of the land around the city and, in various interpretations, is still the basis for theoretical and empirical analysis in the field of so-called urban economics today. Both in the version presented by von Thünen, the existence of a central urban market and the version proposed by Alonso the existence of a central business district within the city are assumed as a given in advance and not interpreted by means of a model (Cieślik 2005).

With the industrialisation of Germany came a trend initiated by Launhardt and developed by Weber (1909). This current focused on the question of an industrial factory's optimal location, supplying several markets and having several supply sources. Launhardt, for his theory, assumed that a monopoly factory is located on a plain, the cost of transport per unit distance is fixed, all consumers are identical and demand the good, consumers bear the cost of transport, the firm produces one product at a fixed cost and charges the same price for its product to all customers (Brdulak et al.). Launhardt noted that the price of a good produced at a firm would increase with increasing distance due to the transportation costs incurred in transporting the goods to the customer, who will burden them. Demand will decrease with the increase in the good price, associated with the increase in distance from the enterprise producing the good, and will decrease to zero once a certain distance from the place of production is reached. According to Launhardt, transport costs were the most significant factor in determining a firm's location (Nazarczuk 2013). Transport costs were the highest costs that were not directly related to the production process. Launhardt neglected other important factors for a company's location besides transport, such as geographical aspects, social aspects - labour force or economic aspects - land prices and availability (Yeung-Nan Shieh 2013).

Weber was a continuation of Launhardt's thought. In a 1909 work entitled "The Theory of the Location of Industry. In his 1909 work 'Theory of Industrial Location', Weber outlined how a company should decide on the optimal location for its enterprise. In his model, Weber detailed the spatial factors to find the optimal location for a production facility at the lowest cost (Weber 1909). In his

model, he made assumptions indicating that the location of a single enterprise that produces only one product in specific quantities is assumed for the analysis; transport costs are dependent on the weight of the goods and the transport distance; technical coefficients of production are fixed; the origin of raw materials and consumption locations are known (Budner 1999). Transport costs are the main component of production costs. Therefore, the choice of the enterprise's right location should be combined with the minimisation of transport costs (Meyer 1998). Weber was the first to formulate the concept of location factor and identified the three most important factors for an enterprise's location, i.e. transport, labour and agglomeration benefits (Godlewska-Majkowska 2013). According to him, transport costs were the most important, accounting for between 20% and 40% of production costs. The other two factors can influence location, but under the assumption that increased transport costs will be compensated by better labour conditions or agglomeration benefits (Wieloński 2007).

Much more important for further developing the economic theory was Christaller's central place theory, which was concerned with location and administrative and manufacturing centres, serving an evenly distributed rural population (Resmer 2015). Some activities, such as industry or administration, are not evenly distributed in space due to economies of scale. This theory highlights the role of fungibility between economies of scale and transport costs, which leads to a network of central places where producers of goods and services that serve surrounding peasants are located (Budner 2004). Christaller recognised that many small market towns are oriented towards a larger centre. He argued that the city is at the centre of the regional community and the city's role depends on the amount and type of goods and services offered (Meyer 1998).

Another representative of the German classical school of location theory was Lösch. According to his theory, which is based on the spatial variability of selling prices, he took sales maximisation as the criterion for optimal location (Resmer 2015). According to Lösch, a company will locate itself as close as possible to a receptive sales market location. Lösch's main assumption was the classical demand curve showing the relationship between price and supply. According to Lösch, distance is an important determinant of location choice, allowing for taking into account distribution costs, market area and demand volume simultaneously (Domański 2011). Lösch found that the locations of different economic activities are distributed unevenly in space. The economic benefits of specialisation and mass production affect the concentration of enterprises in a particular region. The number of enterprises in a particular region is limited, which means that they will disperse, and thus, transport costs will play a vital role (Budner 2004).

The theory of factor substitution, applied by Predöhl, led to the creation of links between economic theory and location theory (Domanski 2002).

According to Predöhl, each point in geographical space, is characterised by specific factors of production. Therefore the prices of these factors in space are not equal. The change of location from one place to another is related to the substitution of different factors, depending on their relative prices (Szymańska, Płaziak 2014).

Research on agglomeration factors was also conducted by Isard, who attributed the dominant role in his theory - like previous researchers - to transport costs (Isard 1956), which are the only determinant causing regularities in the spatial arrangement of activities. Isard adopted the classification of agglomeration factors previously proposed by Hoover. However, he recognised that the boundaries between the categories were very blurred, particularly in location benefits and urbanisation benefits (Isard 1956). Hoover was concerned with the labour force's settlement aspect and thus laid the foundation for considering the housing infrastructure factor's role in business location theory (Grala 2009).

Summary

The distribution of foreign direct investment in geographical space is usually uneven. According to the assumptions of location theory, the decision to undertake FDI is determined primarily by location factors present in the host country after comparing them with location factors in the investor's country. This means that for a decision to operate abroad, the host country must have a significant advantage over its origin in terms of location factors.

The choice of a particular region in which to locate a foreign-invested company's business activities should be determined by assessing the benefits they can achieve by locating in a particular region. The decision for a multinational to locate investment in a particular region is determined by the advantages of that region that determine its profitability and how it compares to the other locations considered.

The study of factors determining the choice of location and the analysis of the first location theories have given rise to the conclusion that it is difficult to create a fixed catalogue of factors determining a company's location in geographical space.

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Summary

The purpose of this article is to review the classical theories on the location of foreign direct investment. Location theory assumes that a firm's production costs and revenues depend on its location. With the first classical business location theories, identifying business location factors has become an important research issue. The most important feature of space influencing location decisions is geographical proximity, contributing to cost reduction and agglomeration benefits.

Keywords: foreign direct investment, geographical concentration, classical location factors

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