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# The Role of Housing in the Spatial Distribution of Unemployment in Poland

**Abstract:** Labour market and housing problems are an important part of social studies, though spatial analysis of labour market diversification and housing resources are not the dominating subject of studies. The interaction between the place of residence and the place of work is treated in terms of commuting to work, but this aspect does not exhaust the issue. The article is an attempt to answer the question whether a relation exists between the structure of housing and its accessibility and the stable diversification of local labour markets. A necessary condition for permanent migration from a location that does not offer work to that characterised by labour demand, is the accessibility of housing offering acceptable living conditions. The decades-lasting housing deficit and the efforts to improve the situation relying solely on market mechanisms seem to restrict housing accessibility considerably. To answer this question a model of spatial regressions was construed, based on statistical data aggregated at the district (county) level. The results indicate a considerable role of financial accessibility of housing, in terms of purchase capacity and remuneration in particular districts, in preserving the disparities among local labour markets.

Keywords: unemployment, local labour markets, Poland, housing stock

JEL: H41, H44, J21, J61, R31

### 1. Introduction

The question of work is one of the central issues in discussions on social and economic development. In 2015, the population employed in Poland numbered 16.1 million. At the same time the unemployed comprised a group of 1.3 million. Thus, over 56% of the Polish population 15 years of age and over are professionally active, either working or seeking employment (*Aktywność ekonomiczna*..., 2016). Contracted work is not only the main source of financing households but also one of the most important factors diversifying the social structure. Work shapes the personality and the life style of individuals. Professional roles are similar in terms of content and follow similar rules. Members of professional groups contribute to groups of interest understood as active subjects of history (Domański, 2007).

Labour issues, appropriately to their social role, are an important subject of studies pursued from various economic, geographical, sociological and psychological perspectives. On one hand, these studies result in generalisations, and on the other, emphasise the diversity of labour demand and supply in sectoral, professional and territorial terms. This article is part of the territorial trend in the field. Hudson (2001: 122) notices that "labour is the most place-based of the factors of production". The fundamental interaction between labour demand and supply are best manifested locally. The diversity of local conditions results in considerable disparity of local labour markets. Global capitalism not only notes these differences but its development is based on the capacity of big corporations to take advantage of the phenomenon. Scientific literature searches for both economic and social reasons for local labour markets disparity. These types of analysis are also conducted in Poland, though the housing aspect of studies and its impact on local labour markets continues to be insufficient. This article is an attempt to generate a preliminary theoretical framework of the problem and an empirical verification of the formulated hypothesis. The spatial capacity of the analysis covers the entire territory of Poland broken down into districts<sup>1</sup>. The basic period of the quantitative study is the year 2015. In order to illustrate the background underlying the diversified local labour markets, reference is made to the processes during the phase of economic transitions and the integration of Poland with the European Union (since 1989).

The hypothesis under verification assumes that the deficit of housing and its restricted financial accessibility are a significant barrier to migration from locations characterised by a high unemployment rate to locations which feature higher labour demand. The presence of this barrier congeals the disparity among local labour markets.

<sup>&</sup>lt;sup>1</sup> Local Administrative Units level 2 according to *Klasyfikacja Jednostek Terytorialnych do Celów Statystycznych* [Nomenclature of Territorial Units for Statistics].

The study applies the multi-regression method. As the explanatory variable – the registered unemployment rate – shows considerable spatial autocorrelation, it was decided to apply the spatial regression model. The model helps to find appropriate formulas accounting for both the independent (egzogenic) variables and the dependent (endogenic) variable, taking into account the spatial distribution of these variables.

The article first describes the local character of labour markets, indicating the key economic differences in local labour markets, and next the impact of housing stock on these differences. These theoretical considerations are supported by an empirical analysis – a spatial regression model taking into account the factors referred to above, followed by a discussion of the results.

# 2. The local aspect and the stability of disparity as an imminent feature of the labour market

Though work is a phenomenon that affects every aspect of human life, it is usually accounted for in economic terms, and because of this connotation, it is of special interest to economic studies. Nevertheless, the classic and neoclassic, as well as the Keynesian and Neokeynesian views on the labour market do not account for spatial disparity (Zieliński, 2012). Practical, empirical studies are based on the readily accessible and most reliable data, which, as a rule, refer to the conditions of national economies. Though the existence of the national labour market category cannot be denied – it mainly constitutes regulatory and cultural factors – this is not the scale shaping the actual interaction between labour demand and supply. These relations are predominantly visible in the sub-local scale (company) and local scale (place of everyday activity, local labour market), where the economic and social disparity of labour demand and supply develops in radically different labour market conditions. This state of disparity is a stable condition. Although the registered unemployment rate of 9.7% in Poland, at the end of 2015 was lower by 9.3 percentage points, compared to the end of 2004, the spatial disparity failed to undergo a diametric change. The correlations ratio for the district aggregates, between the registered unemployment rate in both time cross-sections read 0.797 (Figure 1A). The stability of the unemployment disparity confirms earlier studies (Radziwiłł, 1999; Gawryszewski, 1993). It is originating in profound economic transformations during the transition crisis (Kleer, 2003). Though the rationale of this situation is complex (Kijek, 2006). The liquidation of state enterprises, both in industry (Paradysz, 2015) and in agriculture (Dzun, 2005) played a key role in the process.

A newer study also confirms the durability of spatial diversity of unemployment. Tokarski (2013) pointed to the lack of convergence of the unemployment rate in districts, in the years 2002–2011, whereas Dykas and Misiak (2013) showed that growing unemployment rates at district level are primarily determined by the real GDP increase and the unemployment in the previous year. The results of the analysis given in Figure 1 are a roundup of the stability of spatial unemployment disparity. As mentioned earlier, in the years 2004–2015, the unemployment rate in Poland dropped by approximately a half. However, this significant reduction did not cause a considerable change in the positioning of particular districts. 44% of the districts did not move to other quintiles. Another 41% moved by one quintile within the district group. Only 15% of the units showed a relatively significant change in the registered unemployment rate.

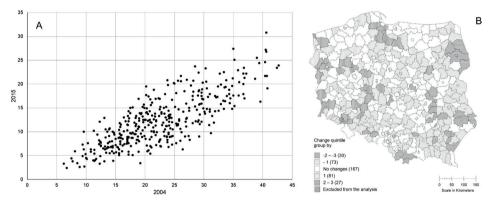


Figure 1. The stability of territorial disparity of the registered unemployment rate within districts – the relations between the 2015 figures and those of 2004 (A) and the relative variability in the years 2004–2015

Source: own study based on Local Data Bank of the Main Statistical Office (GUS)

# 3. Main disparity conditions and factors of local labour markets

The stability of the diversified condition of local labour markets reflects a number of economic and non-economic factors, which contribute to the local labour control regimes. The fundamental factor – labour demand – depends on the location of the employers. In industrialised economies and service-oriented economies work places are spatially concentrated. This means high concentration of labour supply, though spatial disparity of this factor depends more on non-economic factors, i.e. demographic, social and cultural factors. This is the consequence of the fundamental difference between the objective production factor (e.g. buildings, machines, raw materials) and labour – the production factor rooted in people. While the former can be used by the entrepreneurs according to their needs, the latter cannot. People are conscious subjects functioning on the labour market - with aspirations, a will to act and interests, which are, at least partially, contrary to the needs of enterprises. Labour is treated as a production pseudo-factor. The supply-demand relations are subject to social regulations, also in the supra-local dimension (e.g. labour law), and are expressed locally by regulatory institutions in various ways (Castree et al., 2004). In capitalist economy, employment opportunities arise in locations which offer the investor the most adequate location factors for achieving the best return on the investment (hard factors), maximum psychological benefits and minimum difficulty (soft factors) during the investment process and later, during the operation of the enterprise (Dziemianowicz, 1997 after Grabow, Henckel, Hollbach-Grömig, 1995). The labour demand size and structure are territorially diversified. This is caused by the fact that remuneration and acquisition multiplier effects of the investment (Wiedermann, 2008) reinforce the mechanism of circular cumulative causation (Skott, Auerbach, 1995) that results in the development of locations where enterprises can take advantage of external benefits offered by agglomerations (Mera, 1973; Wheaton, Shishido, 1981; Skott, Auerbach, 1995; Duranton, Puga, 2004; Puga, 2010; Rigby, Brown, 2015). Marshall (1928), who noticed the role of economies of agglomeration, initiated a discussion, continued to this day, about the nature of its benefits. Summing up this discussion, Lasagni (2011) indicated three kinds of agglomeration related advantages: (i) spatial concentration of entities conducting similar business and the related specialised production of components in a specified value chain; (ii) spatial concentration of entities conducting different types of business, generating wide economic diversification; and (iii) spatial concentration of entities competing on the same market<sup>2</sup>. The agglomeration economies, thanks to their specialisation in the value chain, inter-sectoral dissemination of knowledge and the competitive drive for innovation, foster local labour market growth, its further specialisation and complexity (Combes, Duranton, 2006). Both social and spatial labour distribution are strengthened (Massey, 1995), and result in labour market segmentation, both in terms of qualifications and professions as well as in spatial terms. A special feature of this distribution emphasised by Castree et al. (2004) is its stable character, resulting from the difficulty in migrating between segments. The spatial expression of the mentioned stability is the development of diversified local labour markets. They remain interdependent, often on a global scale, though the interrelation is asymmetrical and results in unequal development. The core markets offer better labour terms and conditions, which develop as a consequence of the privileged position in la-

<sup>&</sup>lt;sup>2</sup> According to Lasagni (2011) the first kind of advantage is termed MAR (Marshall-Arrow-Romer) in literature. This term was popularised by Glaeser et al. (1992) with reference to fundamental works: Marshall (1928), Arrow (1962) and Romer (1986). The second is referred to as the Jacobs type advantage (1970), and the third is the Porter type advantage (Porter, 2001).

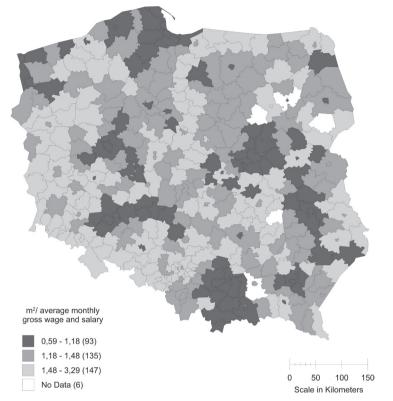
bour distribution, as compared to the peripheral markets. What is more, one of the functions of the core market is to determine the role of peripheral markets in labour distribution, thus cementing the differences in the functioning of particular local labour markets.

# 4. Housing resources and their role in local labour markets

The condition of local labour markets is strongly diversified as shown by the different economic factors indicated above. Other, non-economic conditions influence the disparity. Employers do not have any greater influence on the reproduction of labour resources – birth rate or educational preferences. The reproduction of labour resources is a long-term process, thus adequate education planning to satisfy the future labour needs is even more difficult. The processes referred to above produce mismatching of professional qualifications and spatial distribution, expressed by the high disparity in local labour markets unemployment rates. Migration provides a mechanism that reduces this mismatching. The change of residence is associated with economic, social and psychological costs (Sjaastad, 1962), including the costs of moving to new housing facilities. The cost depends on the size and structure of housing stock, which depends on the housing policy of the state. The market value of real estate is connected with the local labour market by the mechanism of municipal rent. Housing provides access to it. The market value of apartments takes into account the users' income streams generated by their employment status. The remuneration offered on the local labour market is one of the factors affecting housing prices<sup>3</sup>. This interaction and its role in migration decisions is described in literature (Berger, Blomquist, 1992; Antolin, Bover, 1997; Cannari, Nucci, Sestito, 2000; Moretti, 2013; Haas, Osland, 2014).

From the point of view of the labour market, the disproportions between the high housing prices of purchase/rent compared to remuneration are a disadvantage. In such a situation the accessibility of housing decreases. In the case of Poland, housing accessibility is highly diversified (Figure 2), with the lowest accessibility in municipal areas that function as the main settlement nodes and at the same time show the lowest unemployment rate.

 $<sup>^{3}</sup>$  In the case of Polish districts the correlation coefficient for 2015 of the average monthly gross salary (PLN) and price median per m<sup>2</sup> of housing on the secondary market was 0.43.





The clearly lower financial accessibility of housing in economically well developed areas is the consequence of the size and structure of housing and the state policy in this respect. For decades, though the situation has improved, the housing deficit remains a major problem. Municipal housing, company and cooperative apartments have continued to be privatised since the beginning of the economic transition (Cesarski, 2007; 2016). Thus, the housing stock assisted by the state, territorial self-governments or other public institutions, which could be termed affordable housing, that are accessible at lower than market prices continue to shrink. At the same time the percentage of private housing continues to grow, at least in big municipalities, increasing housing supply built for sale or rent. A higher percentage of apartments instigates a reaction loop. Lack of housing means a labour deficit, which is reflected by higher remuneration that influences housing prices. The high housing prices offered on market terms limit migration to bigger apartments and reduce the differences in unemployment among local labour mar-

kets. They also contribute to the marginalisation of households to peripheral areas, characterised by high unemployment. Relocation to undertake employment is problematic as the benefits of higher income on the labour market offering higher remuneration is reduced by higher costs of purchasing or renting an apartment.

## 5. Research method

The multi-regression method was applied to study the impact of housing stock on the disparity of registered unemployment in local labour markets. Quantitative data for the year 2015 used in the study comes from the Main Statistical Office. The dependent variable is the registered unemployment rate. The study accounts for two dependent variables, which specify the degree of economic activity concentration that may discount agglomeration advantages (Table 1). They are included in the model because of their relevance in differentiating the conditions of the local labour markets. Among the three variables characterising the diversity of housing stock, two ratios, i.e. the number of housing units per 1000 persons and the average floor space per person, reflect indirectly the housing deficit. The third ratio is the approximated financial accessibility of apartments (Table 1) The number of transactions in the source database was sufficient only in the case of the secondary real-estate market. Therefore, the analysis is restricted to this issue. Nevertheless, the prices of housing on the primary and secondary markets interact<sup>4</sup> similarly to the price of purchase and rent of apartments. Special remarks regarding the quality of statics is included in Table 1.

The analysis assumed a breakdown into districts as the local labour markets, i.e. areas making daily commuting to work possible for the majority of inhabitants. The assumption is slightly simplified compared to the real spatial commuting structure to work locations. Quite often spatial commuting systems stretch beyond the residents' local area, covering neighbouring areas, and less often stretch over the remaining territory of a particular district (Gruchociak, 2012). In special cases of big cities, the local labour market may embrace adjacent areas in neighbouring districts (Śleszyński, 2012; 2013). The choice of a breakdown into districts resulted from the accessibility of statistical data. The majority of regressions in the model are not available for the local areas structure.

<sup>&</sup>lt;sup>4</sup> Data from 30 districts with the greatest number of housing purchase and sale transactions (*Obrót nieruchomościami w 2015 r. [Real-estate turnover in 2015]*, 2016), show interaction (correlation coefficient) of the price median per m<sup>2</sup> of housing on the primary and secondary market of 0.927.

| Variable  | Symbol | Remarks   |
|---|--------|---|
| Registered<br>unemployment rate   | RER    | Data according to place of residence. Not every unemployed<br>person registers in the labour office and some are deleted<br>from the register for not satisfying formal requirements.<br>The register includes persons, whose intention is to receive<br>unemployment benefit or social insurance as well as those<br>employed in the grey zone (Janukowicz, 2010). The<br>number of professionally active persons is an estimate. The<br>estimations primarily refer to persons working in individual<br>farms. The number of professionally active individuals<br>does not cover those employed in budgetary units involved<br>in national defence and public safety. |
| Gross value of fixed<br>assets (PLN) in enter-<br>prises per capita   | GVFA   | Data referring to economic entities (no information about<br>the national economy) operated by over 9 persons. The<br>aggregate value for Poland in 2015 reads 52% of gross value<br>of fixed assets in the Polish national economy (enterprises<br>and other entities).  |
| The number<br>of employment per<br>1 km <sup>2</sup> of district area   | EMP    | Data referring to economic entities operated by over 9<br>persons. Data according to the actual work place. The<br>total number does not cover those employed in budgetary<br>units involved in national defence and public safety. The<br>aggregate value for Poland in 2015 reads 76% of the total<br>working population in the national economy of Poland.   |
| Number of dwellings<br>per 1000 inhabitants   | DWELL  | Data based on the balance of housing stock  |
| The average useful floor area per person  | UFA    | Data based on the balance of housing stock.   |
| The number of m <sup>2</sup><br>of useful floor area<br>in the secondary<br>housing market<br>available for purchase<br>for 1 average monthly<br>salary | DA     | The price median per m <sup>2</sup> of floor space on the secondary<br>housing market is taken after the Register of Prices and<br>Real-estate Value kept by <i>Starostwo Powiatowe</i> and the<br>Presidents of cities with district rights. In the case of three<br>districts, less than three were noted and in the next three the<br>transactions were not properly registered. The missing data<br>for these six cases were imputed (Balicki, 2004) adopting<br>an average value of transactions in adjacent districts.<br>The average monthly salary does not include businesses<br>operated by up to 9 persons.  |

Table 1. Variables in regression model (data for the year 2015)

Source: own study

The distribution of the analysed variables showed a significant degree of spatial correlation. Moran's *I* for the endogenic variable was 0.373, which means that the registered unemployment rate in any given district is to a significant extent influenced by the rate in the neighbouring districts. Thus, the observations are not independent and potentially burden the generated estimators in the regression model when applying the ordinary least square method (OLS). Therefore, the spatial regression model was applied using the maximum likelihood estimation method (ML). The mathematical structure of this model, as well as estimator analysis, are described in literature (Smirnov, Anselin, 2001; LeSage, 2008; Janc, 2009; Kossowski, 2010; Suchecki, 2010). Depending on the value of particular parameters, we can develop four basic model structures for spatial regression. In practice, two models are used; the spatial lag model and the spatial error model (Janc, 2009). The proper choice was made following Ansline's (2005) simplified procedure. The classic regression model served diagnostic purposes to estimate the Lagrange multipliers (LM or RLM in Table 1), which resulted in adopting the spatial lag model<sup>5</sup> for structural estimators.

### 6. Results

The spatial lag model proved to better match the study needs than the classic model as shown by the changed value of Log L, AIC and SC. It was also possible to reduce the effect of spatial heteroskedasticity. All other variables proved to be of statistical relevance. The registered unemployment rate in any given district is generated by the unemployment rates in neighbouring districts ( $W_RER$ ) – a 1% increase in the adjacent area means a 0.45% increase in the unit under analysis (Table 2).

The results do not confirm a clear impact of agglomeration advantages, including specialised labour market, on unemployment. Although the interdependence is negative, as could be expected, its impact remains minor. This is contradictory to the results of studies described earlier. This effect may be caused by imprecise variables illustrating the phenomenon. Accessible data characterise the phenomenon generally and do not embrace the entire population. However, the study results support the thesis that work is a pseudo-factor of production (Castree et al., 2004). The interaction of production demand and supply are strongly regulated by non-economic factors, and their structure is clearly spatially diversified.

| Model     | Classic model   | Spatial lag model |
|-----------|-----------------|-------------------|
| Estimator | OLS             | ML                |
| Fixed     | 22.8096 (0.000) | 13.437 (0.000)    |
| W_RER     | _               | 0.4592 (0.000)    |
| GVFA      | -0.0001 (0.000) | -0.0002 (0.000)   |
| EMP       | -0.0100 (0.000) | -0.0077 (0.000)   |

Table 2. Model estimators of registered unemployment rate for districts in 2015

<sup>5</sup> The Lagrange multiplier for spatial lag model  $(LM_{SEM})$  and spatial error model  $(LM_{SAR})$  are statistically relevant and the model could not be adopted (Table 1). The results of specification testing  $(RLM_{SEM})$  and  $RLM_{SAR}$  were also statistically relevant, though the  $RLM_{SEM}$  gave better results and supported the choice of the spatial lag model.

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| Model               | Classic model                  | Spatial lag model |
|---------------------|--------------------------------|-------------------|
| DWELL               | 0.0353 (0.000)                 | 0.0237 (0.000)    |
| UFA                 | -0.8092 (0.000)                | -0.5343 (0.000)   |
| DA                  | 1.2978 (0.018)                 | 1.3500 (0.004)    |
| Log L               | -1067.45                       | -1029.69          |
| AIC                 | 2146.90                        | 2073.38           |
| SC                  | 2170.54                        | 2100.96           |
| $R^2$               | 0.4174                         | 0.5451            |
| Normality test      | ·                              |                   |
| JB                  | 19.0733 (0.000)                | _                 |
|                     | Spatial heteroskedasticity tes | t                 |
| BP                  | 13.6000 (0.018)                | 9.7727 (0.081)    |
| KB                  | 12.3172 (0.000)                | _                 |
| White               | 62.0758 (0.000)                | _                 |
|                     | Spatial autocorrelation test   |                   |
| Moran               | 8.0322 (0.000)                 | _                 |
| LM <sub>SEM</sub>   | 78.9220 (0.000)                | _                 |
| RLM <sub>SEM</sub>  | 21.5558 (0.000)                | -                 |
| LM <sub>SAR</sub>   | 57.5724 (0.000)                | -                 |
| $RLM_{SAR}$         | 0.2062 (0.649)                 | -                 |
| LM <sub>SARMA</sub> | 79.1282 (0.000)                | -                 |

Source: own study

Variables characterising the diversity of housing stock also proved their significant impact on the unemployment rate. A 1% growth of housing stock, in terms of the number of dwellings per 1000 inhabitants increases the unemployment rate in the given district by merely 0.02%. In view of the main thesis that the reduction of the housing deficit should enhance mobility and consequently contribute to a drop in unemployment on markets featuring low labour demand, this interaction tendency may seem to be incredible. Nevertheless, there is an explanation. Housing stock growth on local labour markets with very low registered unemployment rate (municipal functional areas of the biggest cities) favour immigration. This inflow can be expected to generate a higher registered unemployment rate. However, taking into account the flawed employment data, based on administrative criteria, local labour markets of big cities would, in practice, not experience real unemployment but rather a decreasing deficit of qualified employees. The interaction demonstrated by the model may also be explained otherwise. A drop in population can also cause the growing number of dwellings per 1000 inhabitants. Such a situation appears most often in peripheral labour markets with low labour demand and considerable mismatching of professional qualifications, when some of the most active present and future employees migrate. On one hand, the labour supply drops and should be reflected by falling unemployment, but on the other hand, it produces a negative reaction loop of decreasing entrepreneurship, work productivity and local demand, which contribute to a high unemployment rate.

The relatively minor impact of the interrelations described above may result from the limited spatial mobility of employees caused by high costs of changing their place of residence. According to the regression results, a 1% growth of financial accessibility, measured by  $m^2$  of housing units that may be acquired with the equivalent of an average monthly gross salary, increases the registered unemployment rate (1.35%). The nature of the described interaction results from the excessive supply of housing units in peripheral labour markets caused by depopulation and their resultant lower market value. The insufficient housing supply in areas featuring a low unemployment rate results in higher market value and limited financial accessibility of housing, even in the case of higher average monthly salaries. The consequence of this phenomenon is a limited inflow of employees from peripheral areas to social and economic development centres, and the growing selective nature of the process. Primarily specialists in demand move to big cities. They may count on higher than average salaries that provide access to the housing market. As mentioned above, the selective migration weakens the resources of local labour markets characterised by low demand, both in quantitative and qualitative terms, thus stabilising high unemployment and all the related social problems. The differences in financial accessibility strengthen the spatial segmentation of the labour market and solidify their disparity.

The last ratio of diversified housing stock – useful floor area per person – shows its adverse relation to the level of unemployment. A 1% growth of usable area per person causes a 0.53% decrease of the registered unemployment rate. The considerable impact of this ratio is related to the fact that the size of a housing unit is a derivative of inhabitants' wealth and the related consumption, which by salary multiplier effects generate a higher labour demand. Literature<sup>6</sup> has already noted the role of this factor in shaping local labour markets in Poland. Larger living space directly reinforces local demand to furnish such housing units.

### 7. Conclusions

A substantial and stable spatial diversity of the unemployment rate developed in Poland during the economic transition period. Although the appearance of such differences is the consequence of the diversity of economic and non-economic factors, as well as conditions affecting local labour markets, nevertheless the range (2.4% to 30.8% in 2015) seems to be far from the territorial optimum (Zaucha et al., 2015), or even the acceptable level of spatial social (non) equality (Gough, 2010).

<sup>&</sup>lt;sup>6</sup> In the nineties of the twentieth century, the number of cars per 1000 inhabitants reflected well the spatial diversification of consumption demand (Radziwiłł, 1999). Apartments were at the time not readily financially accessible, therefore, the material aspirations of Poles focused on the ownership of a car. The later housing credits, in the first decade of the twenty first century, allowed a much bigger group of households to purchase apartments.

One of the factors contributing to such differences is the low internal mobility of Polish citizens. This phenomenon does not refer to labour migration abroad. The figure of over 2 million Polish citizens temporarily living abroad since the access of Poland to the European Union contradicts the concept of low mobility. Therefore, other barriers must exist for internal migration. The search for the impediments focused on housing stock and its financial accessibility. The second issue seems to be significant as the financial accessibility of housing units in areas enjoying a good situation in the labour market is clearly lower than in problem areas. According to the regression results, a 1% growth of financial accessibility measured by  $m^2$  of housing units that may be acquired with the equivalent of an average monthly gross salary, increases the registered unemployment rate (1.35%). The nature of the described interaction results from the excessive supply of housing units in peripheral labour markets, caused by depopulation, and at the same time their deficit in areas of sound economic condition. The insufficient housing supply in areas featuring low unemployment rates means that their financial accessibility is lower, even if we account for a considerably higher average monthly salary recorded in these areas. The consequence of this phenomenon is a limited inflow of employees from peripheral areas to social and economic development centres, and a trend in labour migration abroad. The low supply of housing in well-functioning local labour markets, which generally offer housing on market terms, means high prices. This situation clearly underlines the huge deficit of affordable housing, which would be accessible to the population with low and average income, and which would result in housing demarginalisation by providing access to employment and economic elevation. Housing stock, understood as public good, with access supported to a considerable extent by the state, self-governments and other public institutions, though costly, would decrease the spatial mismatching of labour market demand and supply, which give rise to grave and long-lasting social and economic consequences.

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#### Rola zasobów mieszkaniowych w różnicowaniu stanów lokalnych rynków pracy w Polsce

Streszczenie: Zagadnienia rynku pracy i mieszkalnictwa stanowią ważką część problematyki nauk społecznych, jakkolwiek analiza przestrzennego zróżnicowania stanów rynków pracy i zasobów mieszkaniowych nie jest dominującą kwestią badawczą. Relacje między miejscem zamieszkania a miejscem pracy postrzegane są głównie przez pryzmat dojazdów do pracy, co nie wyczerpuje problematyki. Celem niniejszego artykułu jest próba odpowiedzi na pytanie, czy i w jakim stopniu trwałość zróżnicowań stanów lokalnych rynków pracy zależy od struktury i dostępności zasobów mieszkaniowych. Warunkiem koniecznym migracji stałej z miejsc, w których pracy brakuje, do cechujących się wysokim popytem jest dostępność mieszkań oferujących akceptowalne warunki bytowe. Tymczasem utrzymujący się od dekad deficyt mieszkań i próby jego zmniejszenia niemal, wyłącznie w oparciu o mechanizmy rynkowe, wydają się dostępność tę istotnie ograniczać. W celu odpowiedzi na tak sformułowane problem skonstruowano model regresji przestrzennej, wykorzystujący dane pochodzące z systemu statystyki publicznej, zagregowane do poziomu powiatów. Wyniki wskazują na znaczącą rolę dostępności finansowej mieszkań, rozumianej jako zdolność nabywcza lokalu mieszkalnego w odniesieniu do wysokości wynagrodzeń w poszczególnych powiatach, w utrwalaniu zróżnicowań stanów lokalnych rynków pracy.

Słowa kluczowe: bezrobocie, lokalne rynki pracy, Polska, zasoby mieszkaniowe

**JEL:** H41, H44, J21, J61, R31

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