

The Determinants of Labour Demand in the Lubelskie Voivodship

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Abstract

The aim of this study is to characterise labour demand in the Lubelskie region and some of its determinants. The first part briefly discusses the theoretical aspects of labour-demand, including its measurement methods and main determinants. The second part offers a statistical analysis of labour demand in the Lubelskie Voivodship against national trends. It proves that labour demand in the Lubelskie Voivodship demonstrates slower growth and a less growth-favourable structure, and that the chances to find work there are smaller than in the country as a whole. However, an analysis of the main determinants of labour demand conducted in the next part of the study suggests that lower labour-demand growth in comparison to the country as a whole can be more attributable to factors related to the product-market situation rather than excessive increase in wages. It was also indicated that an important reason for such disproportions might lie in the relatively high significance of rural areas and agriculture, and also in the weaker position of the region's business sector compared to the country as a whole.

Keywords: regional and local labour markets, labour demand, regional development

Introduction

An important and inherent characteristic of the Polish labour-market is its strong regional diversity which is measured by, including but not limited to, the employment rate and structure, the unemployment rate, labour productivity or the level of wages. This diversity is attributable to the fact that the labour market is spatially determined and depends on the socio-economic potential of individual areas. A set of selected macroeconomic indicators in the Lubelskie Voivodship proves, however, that the labour market and the economic potential are not exactly related. Out of all voivodships, the Lubelskie region has the second-lowest long-term GDP growth (annual average real GDP growth in the years 1995–2011), but the level of the employment rate in comparison to other voivodships was high, and the registered unemployment rate was near the national average. On the other hand, employment reactions to GDP growth were rather weak. These results suggest the need for a more thorough analysis of labour market processes. Special attention should be devoted to the demand-related dimension of the labour market, which is highly dependent on the situation on the product markets.

The objective of this study is to characterise labour demand in the Lubelskie region and describe some of its determinants. The article is divided into three parts. The first offers a brief description of the concept of labour demand, its measurement methods and main determinants. The second part discusses the growth patterns and the structure of labour demand in the region, with particular emphasis on the distinguishing characteristics of the demand-related dimension of the labour market in comparison to the nationwide trends. The third part attempts to identify which determinants of labour demand might explain the existing differences between the regional and national labour markets. The time frame of the analysis is limited by the accessibility of statistical

* Voivodship—Polish administration unit on the NUTS 2 level. Poland is divided into 16 voivodships.

data and spans the period starting from 1995. The data presented are predominantly taken from the Local Data Bank of the Central Statistical Office (CSO) of Poland.

1 Labour demand and its determinants

Labour demand denotes the overall demand for the working force reported by economic entities, and is identified as the number of occupied (fulfilled demand) jobs, and vacancies (unfulfilled demand). The sum of occupied jobs is commonly referred to as “employed persons” or “paid employees”, although in statistical terms used by the CSO they do not mean the same. In official statistics, employed persons comprise people who are at least 15 years old and who in the period of the week under survey undertook at least one hour of activities providing earnings or income, or had a job but did not perform it for any reason, such as illness, maternity leave, or holiday leave. Paid employees, on the other hand, are people hired under employment contracts for a specified or unspecified period.¹ There are two sources of data on employed persons. The first is reports produced for the Central Statistical Office by employers with 9 or more employees, supplemented with CSO estimates (i.e., on individual households in agriculture and the “shadow economy”). Another source is the sampling and questionnaire-based Labour Force Survey (LFS). Due to the different methodologies applied, data from these sources are not comparable. The LFS enables a more accurate assessment of the number of employed persons, whereas the data from the CSO reports facilitates a detailed analysis of the structure of labour demand in different breakdowns. Investigating unfulfilled demand is a much more difficult task. Data provided by public employment agencies are incomplete—according to the National Bank of Poland, only approx. 10% of employers having vacancies report them to such agencies. Instead they prefer to look for employees through media and third-party recommendations (Cichocki, Strzelecki, and Wszyński 2011, 9). Information delivered to public employment agencies usually involves less-attractive jobs with low competence requirements. More information on vacancies is provided by labour-demand surveys conducted by the CSO, but these fail to provide data broken down by voivodships. That is why, in practice, the number of employed persons and the employment rate are most often used as the measure of demand.

In the literature on this subject, there is wide agreement that labour demand depends on goods and services demand (see for example Ehrenberg and Smith 2012, 59; Góra and Sztanderska 2006, 12); nonetheless, the macroeconomic determinants of demand are also believed to include wages, technological progress, labour-market institutions and the national economic policy (Rogut 2008, 45–79). The interpretation of their significance varies across different theoretical trends. As E. Kwiatkowski observes, the proponents of the neo-classical and Keynesian theory are the primary contributors to economic theory. Subsequent approaches to labour demand in neo-classical economic-growth models, the real business cycle theory or the new Keynesian economics, draw directly on the traditional neoclassical and Keynesian definitions (Kwiatkowski 2003, 33). For this reason, the present study employs only those two definitions.²

In neoclassical theory, the macroeconomic definition of labour demand derives from the microeconomic analysis of how enterprises behave. The decisions made by employers are based on the comparison of the cost of adding a job with the production growth achieved this way. The addition of a job (or jobs) is beneficial for the employer as long as the marginal productivity of the additional employee exceeds the wage rate. So, labour demand is a decreasing function of real wages and an increasing function of marginal productivity. From the macroeconomic perspective, it can be assumed that labour demand grows if labour productivity (being a measure of employee productivity, given the difficulties in determining marginal productivity) exceeds real wage growth. However, if the wages grow faster than labour productivity, the employment level will decrease in the long run (See: Kwiatkowski 2003, 34–38). J.M. Keynes offered views that negated the postulates of the neoclassical doctrine. Although he embraced the neo-classicist thesis that la-

1. See: Pojęcia stosowane w badaniach statystycznych statystyki publicznej [Terms used in the public statistics], [@:] http://www.stat.gov.pl/gus/definicje_PLK_HTML.htm.

2. Subsequent theoretical trends on the labour demand and are presented by Rogut (2008, 57–75).

bour demand depends on the level of wages at the microeconomic level, he demonstrated that on the macroeconomic scale, the employment level in the economy is determined by the size of the effective consumer and investment demand in the product market (Kwiatkowski 2003, 38–43). Therefore, it is the increasing global demand, rather than decreasing real wages, that might lead to an increase in the employment rate and a decrease in unemployment. When referring to the Harrod-Domar economic-growth model, one can claim that labour demand is a growing function of the GDP and a decreasing function of labour productivity (Bartosik 2011, 231). In other words, an increase in employment requires sufficiently high GDP growth that exceeds the labour productivity growth rate.

2 Statistical analysis of labour demand in the Lubelskie Voivodship

In order to illustrate the demand-related characteristics of the labour market in the Lubelskie Voivodship compared with the country in general, a short analysis of the basic macroeconomic aggregates should be conducted to determine the level and structure of labour demand, including the employment rate, the structure and growth of employed persons, and the number of vacancies. The Lubelskie Voivodship is characterised by an average level of employment, when compared with the country in general. In 2012, the annual average employment rate for the Lubelskie Voivodship's population of working age was at 65%, compared to 64,9% recorded for Poland. It is worth noting that from the mid-1990s to 2007, its employment rate significantly exceeded the nation-wide rate (see fig. 1). This, however, was attributable to the highest, out of all voivodships, percentage of persons working in the agricultural sector. The proportion of the persons employed in this sector is twice as high as in the country in general, with a lower importance of industry and services. Regions with a high proportion of people employed in the typically low-productive agricultural sector show substantial over-employment in agriculture and high overall employment rates (Tokarski 2005, 131).

The analyses of the regional diversity of this phenomenon prove that its intensity in the Lubelskie Voivodship is one of the highest in the country (Maleszyk 2013a, 124–126). What is also worth noting is the connection between high levels of over-employment in agriculture and a relatively low rate of open unemployment (Kwiatkowski, Kucharski, and Tokarski 2004, 162–166). A large proportion of persons employed in agriculture should also stabilize the cyclical fluctuations in employment in the region. Econometric analyses reveal that employment flexibility in relation to economic growth in Poland was negative and statistically insignificant, whereas the highest sensitivity to business cycle fluctuations is observed for the employment in industry, which is relatively insignificant Lubelskie Voivodship (Tokarski 2005, 145). Contrary to these findings, the decrease in employment rate in Lubelskie Voivodship in 1999 was considerably larger than in the whole country. However, the changes in the employment rate as a result of the economic slowdown in the years 2001–2002 were – as expected – milder. Such trends in the regional labour market can be explained in two ways. Firstly, it resulted from a relatively bigger fall in employment in industry and services in comparison with the national trends. This may suggest that these sectors in Lubelskie Voivodship were relatively more vulnerable to economic deterioration. Secondly, the effects of the

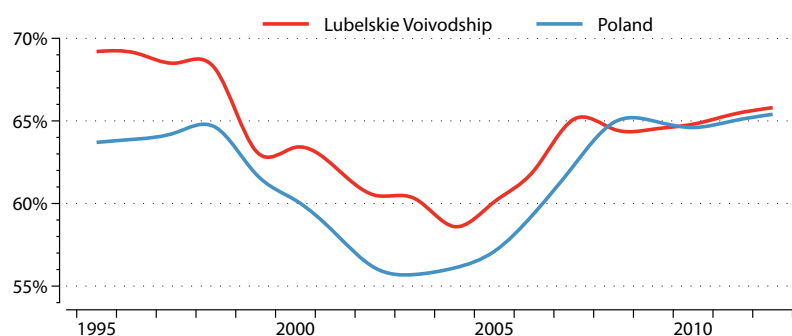


Fig. 1. The working-age population employment rate in the Lubelskie Voivodship and in Poland in the years 1995–2012 (%)

Source: Own calculations with the LFS average annual data, CSO Local Data Bank

fall in exports caused by the Russian crisis at the end of the 1990s might have been more severe in the Lubelskie area—situated in the eastern part of the country—than in the country in general.

Figure 2 provides further information on employment growth patterns in the Lubelskie region in comparison with the country as a whole. This measure of labour demand demonstrates similar trends to the employment rate, except for the years after 2007. In that period, the ratio of employed persons to the total population of working age in the region was similar to the national ratio in this respect, whereas the employment growth in the region was visibly lower than throughout the country. It appears, therefore, that in the period of economic slowdown the decrease in the fulfilled labour demand in the Lubelskie Voivodship proved relatively stronger than throughout the country, which indicates a deteriorated situation in the regional labour market. The causes of the discrepancy between employment growth and the rate of employment might be explained by a relatively bigger drop in the number of people of working age in the region as opposed to the country in general, which might be caused, *inter alia*, by a relatively high rate of outflow of people to other voivodships (See: Maleszyk et al. 2011, 40–41).

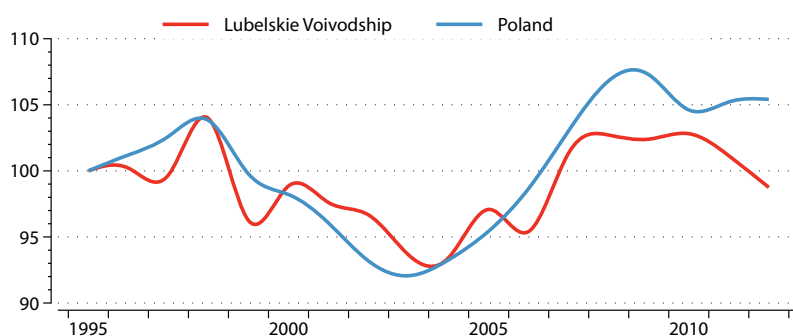


Fig. 2. Employment growth in the Lubelskie Voivodship and in Poland in the years 1995–2012 (1995 = 100)

Source: Own calculations with the LFS average annual data, CSO Local Data Bank

Another constituent of labour demand is vacancies. A high number of vacancies, relative to the number of unemployed, improves the chances of finding employment, facilitates labour-market mobility, and lowers the risk of long-term unemployment. The number of vacancies is also more sensitive to business cycle fluctuations than the number of the employed persons, since the decision to create or liquidate a vacancy involves smaller costs and risks than hiring or dismissing an employee. Although official data on job offers are incomplete, they do allow the formulation of certain general conclusions about the situation in the regional labour market compared to the national labour market, and the volatility of labour demand over time. The necessary information on this subject is presented in figures 3 and 4. In order to compare the size of unfulfilled labour demand in the Lubelskie region with that of the whole country, the number of vacancies was compared with the number of the unemployed registered in public employment agencies, and the rates of outflow from unemployment to employment were calculated.

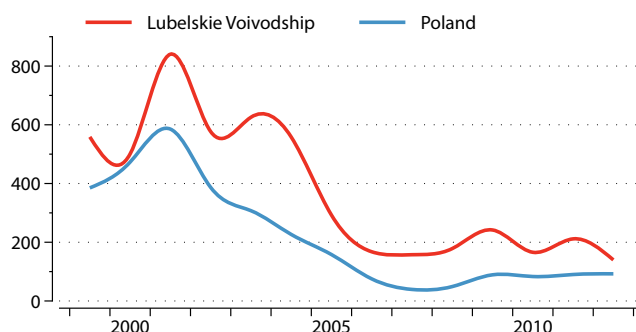


Fig. 3. The number of unemployed for each job offer in public employment agencies in the Lubelskie Voivodship and in Poland in the years 1999–2012

Source: Own calculations with the LFS average annual data, CSO Local Data Bank

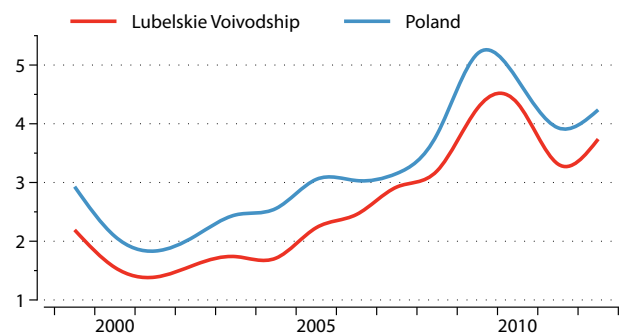


Fig. 4. The rate of outflow from unemployment to employment in the Lubelskie Voivodship and Poland in the years 1999–2012

Source: Own calculations with the LFS average annual data, CSO Local Data Bank

Note: The rate of outflow from unemployment to employment is a proportion of the unemployed unregistered due to commencing work to the number of the unemployed at the end of the previous year.

During the entire analysed period, the number of job offers in the Lubelskie Voivodship, set against the number of the unemployed, was lower than in the country at large. Considering that until the end of 2006 the unemployment rate stayed below the national average, the data clearly demonstrates a lower level of unfulfilled labour demand. The rate of outflow from unemployment to employment, which might be interpreted as the chances of the unemployed to find employment, stayed below the national level as well. This allows the conclusion that the scale of the imbalance between labour supply and demand exceeded the national level. Moreover, the indicators of unfulfilled demand were lower than compared to the country at large regardless of the business cycle. This demonstrates that the lower level of new jobs created was caused rather by structural factors. Even if we take into account the limited comparability of the voivodship results with the nationwide results (this being potentially attributable to e.g. differences in the commitment to obtaining

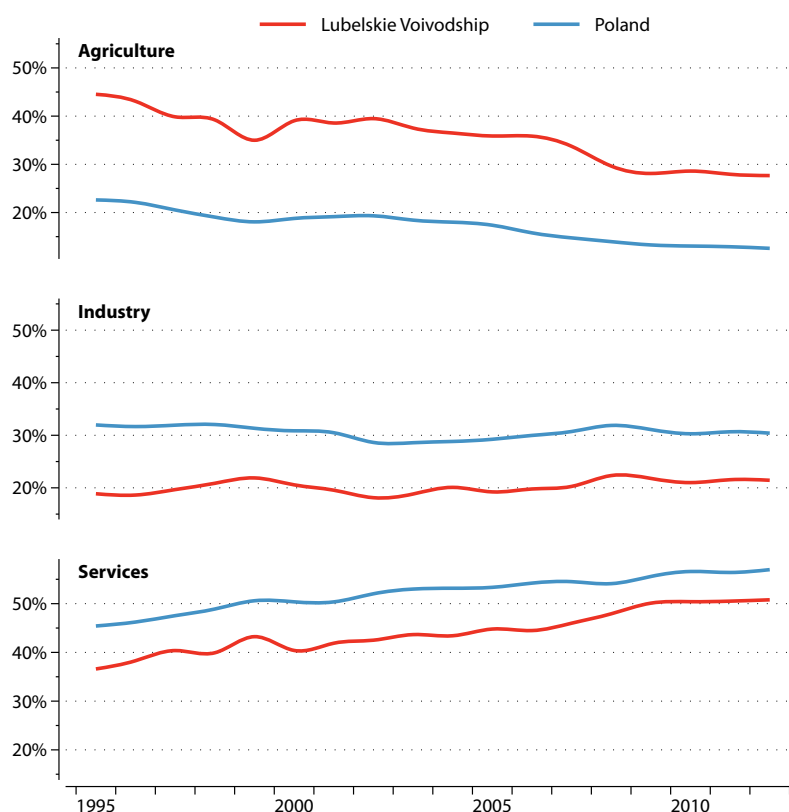


Fig. 5. The structure of employed persons by economic sectors in the Lubelskie Voivodship and in Poland in the years 1995–2012

Source: Own calculations with the LFS annual data from CSO Local Data Bank

job offers from employers among public employment agencies), the magnitude and persistence of the differences shows that the demand-related side of the regional labour market is weak. Low outflows from unemployment to employment also indicate stagnation in the regional labour market. This means a slower reallocation of the labour force which is unfavourable for the dynamic of restructuring processes, the speed of technological progress, the effective matching of employees to vacancies, and transferring the labour factor to more productive companies.

Another important part of the analysis concerns the structure of sectors within labour demand in the Lubelskie Voivodship in comparison to the country in general. Due to insufficient data on vacancies, this paper addresses only the fulfilled demand. As already emphasised, the region is characterised by a much higher proportion of persons employed in agriculture compared with the country as a whole, with a much lower proportion of employment in the industry and service sectors. According to the LFS, the share of employment in agriculture in 2012 in the Lubelskie Voivodship amounted to almost 28%; 21,5% worked in the industry sector, whereas 51% in the service sector.³ In nationwide terms, 12,6% worked in agriculture, 30,4% in the industry sector, and 57% in the service sector. The Lubelskie Voivodship experienced profound restructuring processes in the manufacturing sector, as did the national economy, which caused the structure of labour demand to gradually change. As can be seen from Diagram 5, in the analysed period, the proportion of persons employed in agriculture fell and employment in the service sector relatively increased, whereas after 1995 the proportion of persons employed in industry remained relatively stable. The conclusion is that the changes in the region, compared to the country at large, took the same direction and shared the same dynamics, while the disproportion in the structure of employed persons continued. Such an employment structure in the region indicates — according to Fisher and Clark's structure theory — a low level of economic development (Kwiatkowski and Rogut 2008, 209). Admittedly, the changes go in the right direction, but their pace has been too slow to reduce the disproportions of the region in comparison to the national economy. Figure 6 offers more detailed information, showing data on the structure of the employed persons across individual sections

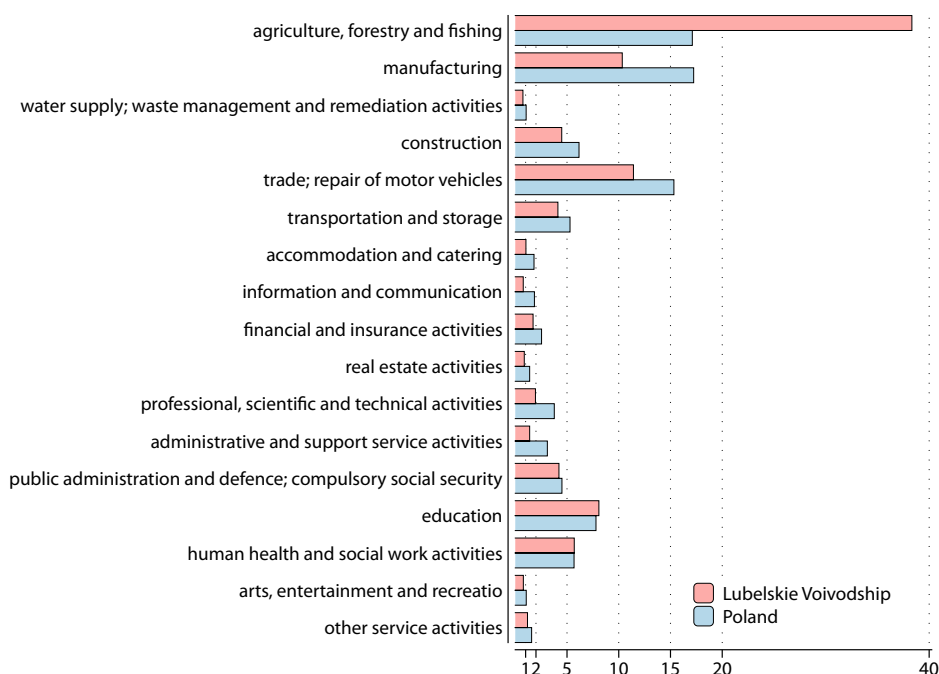


Fig. 6. The structure of the employed in the Lubelskie Voivodship and in Poland in 2012 according to Polish Classification of Activities (PKD 2007)

Source: Own calculations with CSO Local Data Bank

3. [In the journal (in both Polish and English texts) European practice of number notation is followed—for example, 36 333,33 (European style) = 36 333.33 (Canadian style) = 36,333.33 (US and British style). Furthermore in the International System of Units (SI units), fixed spaces rather than commas are used to mark off groups of three digits, both to the left and to the right of the decimal point. — Ed.]

(branches) of the economy. The main differences between the regional and the national structure of employed persons involve relatively higher employment in agriculture, hunting and fishing (section A) and lower labour demand in the manufacturing industry (section C), trade and automobile repairs (section G), and construction (section F). A lower employment in several sectors important for the development of the modern economy was also evident. These included the professional, scientific and technical activities (section M), administration and supporting services (section N), information and communication (section J) or financial and insurance services (section K). Such an employment structure should be deemed out of date in comparison to the national level.

3 Selected conditions of labour demand in the region

The conducted analysis of labour demand in the Lubelskie Voivodship revealed lower fulfilled labour demand growth in comparison to the country as a whole, a relatively smaller number of vacancies relative to the number of unemployed persons and a clearly less favourable structure of employed persons. It is much more difficult to identify those characteristics of the regional economy which are contributing to the weakness of the demand-related side of the labour market. According to theoretical considerations, the reason for the low level of employment in non-agricultural areas and the low dynamics of employment might be either excessive increase in wages, or low demand on the product market. It is worth determining which of these factors has a bigger impact on labour demand in the Lubelskie Voivodship. Therefore, identification of which of these factors has a more significant impact on labour demand in the Lubelskie Voivodship seems to be an important task.

In theory, wage dynamics favourable to the level of labour demand should not exceed labour productivity growth (See more in Layard, Nickell, and Jackman 2005, 10–14). In turn, a ratio of wage growth to labour productivity growth that exceeds 1 will negatively impact labour demand. For the calculations, the measure of labour efficiency employed was the gross value added per employee. The analysis addresses two sub-periods. 1995–2003 was a period characterised by a downward trend in the number of employed persons and the employment rate, with transformation processes having a crucial impact on the labour market. During the period of 2003–2011, an overall increase in labour demand was observed, with integration with the European Union being an important factor affecting the labour market situation. Both time frames experienced years of better and worse economic conditions.

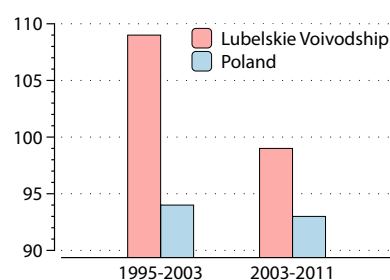


Fig. 7. Wage growth-to-labour productivity growth ratio in Poland and Lubelskie Voivodship in the periods: 1995–2003 (1995 = 100%) and 2003–2011 (2003 = 100)

Source: Own calculations with the data from Rogut (2008, 104) and with the data from CSO Local Data Bank

As one might notice in figure 7, in both examined periods, the average annual growth of labour productivity in nationwide terms exceeded the corresponding wage-growth index. This allows the assertion that the increase in wages was economically grounded. The relationship of the discussed macroeconomic indicators in the Lubelskie Voivodship was less favourable in respect of its impact on the size of labour demand. In the period between 1995 and 2003, the average annual wage growth exceeded the average annual productivity growth, which might have contributed to the fall in the number of employees. In the period of 2003–2011, the ratio of the average annual wage growth to labour productivity change was also higher than that recorded for the whole of the country. The ratio was, however, close to one, which suggests a lack of negative impact of wage growth on labour demand.

The interpretation of the results is rather ambiguous. On the one hand, it seems that the rapid rate of wage growth relative to the increase in productivity might have been one of the causes of the weaker demand-related dimension of the regional labour market in comparison to the nationwide labour market. On the other hand, the wage growth in the period of 2003–2011 proved economically grounded. When attributing the lower employment growth to excessive wage growth, one should do so with caution for other reasons as well. First, in the period 1995–2003, despite the unfavourable ratio of labour productivity change to wage growth in the voivodship, the employment growth in the region was higher than the national rate. However, the number of the employed grew more slowly in the second period, although the discussed ratios improved. It might suggest a weak relationship between wage growth and labour demand, which could be a result of, for instance, distortions in the volumes of productivity and wages inherited from a centrally-planned economy, or varying sensitivity of the labour market in the course of the business cycle. Secondly, the ratio of wages and productivity which is unfavourable for labour demand might be determined by a different economic structure. As previously observed, the share of employment in agriculture in the Lubelskie region is twice as high as in the country at large. Consequently, more detailed information would be provided by an examination of wage and productivity growth patterns across individual sectors. Comparative data are not, however, accessible for the whole reference period, whereas calculations based on post-2003 data show that in the Lubelskie Voivodship, it is the high growth of wages in agriculture relative to the considerably-lower rate of labour-productivity growth in this sector that had a crucial impact on the forming of aggregate results. In other sectors, wage growth has proved economically justified both in the region and across the country, and the difference in the value of indexes representing the relation of wage growth and efficiency growth has been fading.

The weakness of the demand side of the labour market might also be caused by a low demand on the product market. Following this approach, labour demand would depend on the level and dynamics of Gross Domestic Product, requiring a sufficiently high rate of economic growth in order to increase. In this respect, the situation in the Lubelskie region is distinctly negative when compared to the rest of Poland. In 2011, the Lubelskie Voivodship recorded a GDP per capita of barely 67,9% of the national average (15th place among voivodships), and this gap would grow over time in the analysed period. A more detailed analysis of the relations between the domestic product and the fulfilled labour demand is shown in table 1. As in the case of investigating the relationship between wage and labour efficiency growth, two sub-periods were taken into consideration. For both time intervals, the average annual rate of economic growth in the Lubelskie Voivodship was significantly lower than in Poland as a whole, amounting to 2,8% and 3,6%, respectively, whereas the corresponding figures for Poland were 4,9% and 4,6%, respectively.

Individual sub-periods differed, however, in the kind of relationship between economic growth and labour demand. In the period 1995–2003, despite the substantial GDP growth, employment in Poland decreased. The economic growth in this period was therefore jobless, being primarily driven by raising labour productivity attributable to improvements in technological and or-

Tab. 1. Economic growth v. realised labour demand in Poland and in the Lubelskie Voivodship in the periods 1995–2003 and 2003–2011 (in %)

	1995–2003 (1995 = 100)		2003–2011 (2003 = 100)	
	Poland	Lubelskie	Poland	Lubelskie
Average annual real GDP growth	4,9	2,8 ^a	4,6	3,6
Total increase in real GDP	38,8	22,2	43,5	32,6
Changes in the number of employed persons	–7,9	–6,4	14,3	8,0
Employment absorption ratio through economic growth ^b	–20,4	–28,8	32,9	24,5

Source: Own compilation on the basis of CSO data

^a When calculating real GDP growth in the Lubelskie Voivodship in the period 1995–2003, the growth of Gross Domestic Product prices on the national level was assumed as a deflator.

^b The employment absorption ratio by economic growth is correlated with the proportional increase in the number of the employed compared with the proportional Real GDP growth.

organisational progress, and also to improved employee motivation (See more in: Drozdowicz-Bieć 2012, 177–178; Kabaj 2005, 117–147; Kwiatkowski, Roszkowska, and Tokarski 2004). Despite low economic growth compared with the country as a whole, the decrease in labour demand in the Lubelskie region proved to be slightly more moderate. Such a situation is attributable to a high proportion of agriculture, which is less vulnerable to business-cycle fluctuations, and also to the smaller significance, compared to the rest of Poland, of the industrial sector, which has been undergoing intensive restructuring processes. From 2003, when the unemployment rate in Poland reached an unprecedented level of over 20%, the economy started to grow faster, as did the number of employed persons, which demonstrated a positive growth pattern. In the years 2003–2011, the total increase in the GDP of Poland amounted to 43,5%, and this was accompanied by a 14,3% growth in the number of employed persons, which results in an employment absorption rate amounting to 32,9%. In the corresponding period, the increase of the Lubelskie Voivodship's GDP was substantially lower and amounted to 32,6%, with an employment growth of 8% and a clearly lower labour factor absorption by the domestic product growth. The described trends in the size and growth of GDP cause a significantly lower level of demand on the regional product market, which negatively influences the size of the reported labour demand. Such significant differences allow the assumption that it is the lower economic growth rate, compared to the country at large, that is more responsible for the weaker increase in labour demand in the region than the excessive increase in wage levels, which is especially true after 2003, when economic growth had become more employment-driven.

It is important to identify and investigate the determinants of the disproportions in the level and growth of output in the region compared with the country as a whole. While this study does not attempt to provide even a general discussion of the theoretical views and empirical research concerning the sources of economic growth and the causes of the developmental differences between regions, it is important to indicate certain structural properties of the regional economy which might negatively impact the size and structure of the reported labour demand.

The region shows a typically large significance of rural areas, with the predomination of the low production agricultural sector, which does not contribute to creating new, productive jobs. Rural areas are characterised by much higher dispersion of households and enterprises than in the cities. Consequently, product demand is lower, and the specialisation opportunities are scarce compared to urban areas. The sources of supply and output markets are usually situated longer distances away. Transport infrastructure is less developed, as is the technical, economic and social infrastructure (Domański 2006, 53–69). Under such conditions, running many types of business, especially in the service sector, such as trading, becomes unprofitable. This is especially the case with rural areas situated far away from major urban centres. As a result, fewer jobs are created, the market grows slower, and the jobs created are less productive.

Another characteristic of the regional economy is the weak condition of the business sector. The proportion of the public sector in production and employment is higher than in the country at large, and micro and small businesses are relatively more important in the size structure of enterprises, with small representation of the medium-sized and large enterprises. Low entrepreneurship levels and the fragmentation of the business sector dampen their economic strength. Although the view that small and medium-sized enterprises have a positive influence on the creation of new jobs is popular, more detailed research shows that newly-established enterprises, very often small entities, contribute the most to creating new jobs, and grow faster than their more experienced counterparts (Haltiwanger, Jarmin, and Miranda 2013, 30). In other words, it is not the proportion of small and medium-sized enterprises that plays a decisive role in the creation of new jobs but the number of newly-established business entities—and in this respect, the situation in the Lubelskie region is unfavourable in comparison to the country at large. Moreover, the type structure of the existing and newly-established businesses is not modern enough, the level of investment is one of the lowest in the country, and the significance of foreign trade or foreign direct investments is negligible (Maleszyk 2013b). Such a profile of the regional economy negatively impacts growth potential, weakening the demand-related dimension of the regional labour market in comparison to the country.

Conclusions

Analyses conducted on the basis of the data available in the official statistics reveal a relatively worse situation in the demand-related dimension of the labour market in the Lubelskie region compared with Poland at large. While the employment rate is close to that of the country as a whole, this is not so much attributable to the high job creation levels as to high employment at low production levels in the agricultural sector. In recent years, the employment growth has been distinctly lower here than in the country at large. This is also the case with the number of vacancies and employment opportunities. The structure of employment, which is not modern enough, proves that economic development is low. Lower labour demand growth might have been caused by both an increase in wages that was not driven by improved labour productivity, and lower economic growth. It seems, however, that neoclassical factors are less important than the situation on the product market measured by the rate of GDP growth. It was also demonstrated that the lower employment and GDP growth in the Lubelskie Voivodship might be essentially sustained by the relatively large proportion, compared to the rest of Poland, of rural areas and agriculture in the Lubelskie region, and also by the weaker condition of the business sector.

References

- BARTOSIK, K. 2011. "Popyt na pracę w Polsce w warunkach spowolnienia gospodarczego." *Studia Ekonomiczne* no. 70 (3): 229–250.
- CICHOCKI, S., P. STRZELECKI, and R. WYSZYŃSKI. 2011. *Badanie Ankiety Rynku Pracy. Raport 2011*. Warszawa: Narodowy Bank Polski, Instytut Ekonomiczny.
- DOMAŃSKI, R. 2006. *Gospodarka przestrzenna. Podstawy teoretyczne*. Warszawa: Wydawnictwo Naukowe PWN.
- DROZDOWICZ-BIEĆ, M. 2012. *Cykle i wskaźniki koniunktury*. Warszawa: Wydawnictwo Poltext.
- EHRENBERG, R.G., and R.S. SMITH. 2012. *Modern labor Economics. Theory and Public Policy*. 11th ed. Boston, Mass. – London: Prentice Hall.
- GÓRA, M., and U. SZTANDERSKA. 2006. *Wprowadzenie do analizy lokalnego rynku pracy. Przewodnik*. Warszawa-Grójec: Arte.
- HALTIWANGER, J., R.S. JARMIN, and J. MIRANDA. 2013. "Who Creates Jobs? Small Versus Large Versus Young." *Review of Economics and Statistics* no. 95 (2): 347–361. doi: 10.1162/Rest_a_00288.
- KABAJ, M. 2005. *Ekonomia tworzenia i likwidacji miejsc pracy. Dezaktywizacja Polski?, Studia i Monografie/Instytut Pracy i Spraw Socjalnych*. Warszawa: Instytut Pracy i Spraw Socjalnych.
- KWIATKOWSKI, E. 2003. "Elastyczność popytu na pracę w teoriach rynku pracy." In *Elastyczne formy zatrudnienia i organizacji pracy a popyt na pracę w Polsce*, edited by E. Kryńska, 19–47. Warszawa: IPISS.
- KWIATKOWSKI, E., L. KUCHARSKI, and T. TOKARSKI. 2004. "Makroekonomiczne skutki nadzatrudnienia w rolnictwie polskim." In *Zarządzanie zasobami ludzkimi w warunkach nowej gospodarki*, edited by Z. Wiśniewski and A. Pochtowski. Kraków: Oficyna Ekonomiczna. Oddział Polskich Wydawnictw Profesjonalnych.
- KWIATKOWSKI, E., and A. ROGUT. 2008. "Regionalne zróżnicowanie sytuacji na rynku pracy w Polsce." In *Zróżnicowanie rozwoju polskich regionów. Elementy teorii i próba diagnozy*, edited by E. Kwiatkowski, 193–516. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
- KWIATKOWSKI, E., S. ROSZKOWSKA, and T. TOKARSKI. 2004. "Granice wzrostu bezzatrudnionego w Europie i krajach WNP." *Ekonomista* (1): 39–68.
- LAYARD, P.R.G., S.J. NICKELL, and R. JACKMAN. 2005. *Unemployment. Macroeconomic Performance and the Labour Market*. 2nd ed. Oxford–New York: Oxford University Press.
- MALESZYK, P. 2013a. "Regionalne zróżnicowanie nadzatrudnienia w rolnictwie." In *Wspólczesne aspekty rynku pracy*, edited by A. Organiściak-Krzykowska. Warszawa-Olsztyn: Instytut Pracy i Spraw Socjalnych.
- . 2013b. "Sytuacja sektora przedsiębiorstw a popyt na pracę w województwie lubelskim." *Annales Universitatis Mariae Curie-Skłodowska. Sectio H. Oeconomia* no. 47 (1): 73–83.

- MALESZYK, P., I. ŁUCJAN, A. JAKUBOWSKI, U. BRONISZ, K. JAŚKOWSKA, U. MOGIELNICKA, and A. JAKUBOWSKI. 2011. *Rynek pracy w województwie lubelskim w latach 2007–2010, Analizy statystyczne*. Lublin: Urząd Statystyczny w Lublinie.
- ROGUT, A. 2008. *Determinanty popytu na pracę w Polsce w okresie transformacji, Prace Doktorskie z Zakresu Ekonomii i Zarządzania/Uniwersytet Łódzki*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
- TOKARSKI, T. 2005. *Statystyczna analiza regionalnego zróżnicowania wydajności pracy, zatrudnienia i bezrobocia w Polsce, Kluczowe Problemy Gospodarki*. Warszawa: Wydawnictwo Polskiego Towarzystwa Ekonomicznego.