

WALENTYNA KWIATKOWSKA

---

## The Economy of the Łódzkie Voivodeship in Years 2000–2006

### Abstract

*The study assesses the level of socio-economic development in the voivodeship of Łódź in years 2000-2006 and compares it with the situation of the Polish economy.*

*Data analysis allows us to conclude that GDP per capita and average gross wages in the voivodeship of Łódź are lower than in the country. Within the voivodeship, the living standard of the urban population is higher than in rural areas.*

*The importance of the private sector for the voivodeship economy has been growing, but the sector's structure is not favourable. Further intensification of structural adjustments is necessary, especially dynamised development of the services sector, restructuring of agriculture and more extensive diversification of the industrial structure. The adjustments are essential to boost enterprise effectiveness and competitiveness and to improve the position of the voivodeship in relation to other regions in the country.*

### 1 Introduction

The study examines the Łódzkie voivodeship's economy in years 2000-2006. Special emphasis is placed on the demographic characteristics and on the living standard of population in the voivodeship and in its poviats. It addition, it highlights the specific features of the voivodeship's economic structure and its

changes, taking into account criteria such as sectors of ownership, sectors of economy and the structure of manufacturing activities and of services.

The study primarily sets out to assess the level of socio-economic development in the voivodeship of Łódź between 2000 and 2006. This level exerts important influence on the living standard of population in the voivodeship and decides about the competitiveness and effectiveness of business activities. The study assesses it against the situation of the national economy of Poland. Statistical analyses are based on the data derived from Statistical Yearbooks of Łódzkie Voivodeship, Statistical Bulletins of Łódzkie Voivodeship for years 2000-2007, Statistical Yearbooks of the Republic of Poland, GUS (Central Statistical Office) and from the Small Statistical Yearbook of Poland, GUS, for years 2003-2007.

The study has the following structure. Section 2 provides the geographical and demographic characteristics of the Łódzkie voivodeship and of its poviats. Section 3 presents measures used in the assessment process and national data on the levels of socio-economic development in the voivodeship and in the country. Section 4 discusses the characteristics of the voivodeship's economic structure and its evolution. Section 5 provides conclusions derived from the presented discussions and analyses, which are important from the standpoint of socio-economic policy.

## **2. Geographical and demographic characteristics**

The voivodeship of Łódź was formally given its present territorial shape on 1 January 1999. Compared with the previous administrative division of the country in the years 1975-1998, the existing voivodeship of Łódź is slightly smaller in area terms than the Central Macroregion (by ca 16%) that comprised former Łódzkie, Piotrkowskie, Sieradzkie, Skierniewickie and Płockie voivodeships (Kwiatkowska 1998). The loss of some area was mainly due to the incorporation of large part of the Płockie voivodeship into the Mazowieckie voivodeship. The area of the new Łódzkie voivodeship covers 18,200 sq. km (see table 1), which makes up less than 6% of Poland's territory and ranks the voivodeship ninth in the country.

**Table 1. Population and area of the Łódzkie voivodeship and of Poland, 2006**

Specification	Łódzkie voivodeship	Poland
Area (sq. km)	18219	312685
Population (thousands of persons)	2566.2	38125.5
Density of population (persons per 1 sq. km)	141.0	122.0
Working age population (% of total population)	63.9	64.2
Natural increase per 1000 population	-3.1	+0.1

Source: Small Statistical Yearbook 2007, GUS, Warsaw, pp. 116 and 644-645; Statistical Yearbook of Łódzkie Voivodeship 2007, Statistical Office in Łódź, pp. 38-41, author's calculations.

Most of the voivodeship is situated in the Central Polish Lowlands and so the region is typically a low-lying flatland. A stretch of moderately rolling upland can only be found in the southern part of the voivodeship.

Brown coal, glass-making sand, rocks used in road construction and building, limestone, rock salt, as well as silty minerals for building ceramics (*Portrety polskich regionów* 2003, p. 49) are the main natural resources of the voivodeship. The resources drive the development of the regional quarrying industry, as well as the power industry and ceramic industry.

Another attribute of the voivodeship of Łódź is its central location. It makes the voivodeship a transit and interchange area, with intersecting south-north and east-west communication and infrastructure routes. This central location is a very important economic advantage influencing regional development, because it attracts investors allocating their capital to logistics, transport, wholesaling, packaging, etc. Along with the strengthening integration with the European Union, the central location can be expected to increase its significance for the formation of the regional economy.

With the number of population exceeding 2.5 million people (see table 1), the Łódzkie voivodeship accounts for 6.7% of population in the country. The relatively large number of people living in the voivodeship contributes to rather high population density, considerably exceeding the national average. In the recent years, however, some alarming tendency has developed. The voivodeship has comparatively high negative rates of natural increase (-3.1% per 1000 population in 2006 – see table 1), noticeably above these for the country. In years 1999-2006, its population decreased by more than 86,000 persons, but the working age population was unaffected by the tendency, because its number increased by 42,700, from 2000 to 2005.

**Table 2. Population and area of the Łódzkie voivodeship in 2005**

Poviats	Area (sq. km)	Population (thousands)	Population per 1 sq. km	Natural increase per 1000 population
1. Voivodeship	18219	2577.5	141	-2.9
1. Bełchatowski	969	112.5	116	+2.4
2. Brzeziński	359	30.6	85	-2.3
3. Kutnowski	886	104.6	118	-4.3
4. Łaski	617	50.9	83	-2.4
5. Łęczycki	774	53.6	69	-3.3
6. Łowicki	987	82.5	94	-2.2
7. Łódzki Wschodni	499	64.3	129	-1.9
8. Opoczyński	1039	78.8	76	+0.4
9. Pabianicki	491	119.2	243	-3.6
10. Pajęczański	804	53.4	66	-0.4
11. Piotrkowski	1429	90.2	63	-0.9
12. Poddębicki	881	42.4	48	-4.8
13. Radomszczański	1443	119.1	83	-1.6
14. Rawski	647	49.5	77	+1.2
15. Sieradzki	1491	121.3	81	-0.6
16. Skierniewicki	756	37.9	50	-1.9
17. Tomaszowski	1026	121.2	118	-1.8
18. Wieluński	928	78.3	4	-1.6
19. Wieruszowski	576	42.4	74	-0.3
20. Zduńskowolski	369	67.8	184	+0.4
21. Zgierski	854	160.7	188	-2.6
Towns with poviat status				
22. Łódź	294	767.6	2608	-6.4
23. Piotrków Trybunalski	67	79.7	1185	-1.0
24. Skierniewice	33	48.8	1485	+1.4

Source: Statistical Bulletin of Łódzkie Voivodeship 2006, Statistical Office in Łódź, Łódź 2006, pp. 70, and 73.

The voivodeship of Łódź has 21 poviats and 3 towns with poviat status. The units vary in terms of area, number of population and demographic tendencies. According to table 2, the highest population density can be found, excluding towns with poviat status, in poviats Pabianicki, Zgierski, and Zduńskowolski, as a result of high rates of urbanization in the poviats.

The different rates of natural increase in individual poviats are noteworthy. In a definite majority of the units, the rate of natural increase was negative, and its highest values were recorded in the city of Łódź, and in poviats Pabianicki, Kutnowski, Poddębicki and Łęczycki. In four poviats, however, namely Bełchatowski, Opoczyński, Radomszczański and Zduńskowolski, and in the town of Skierniewice, the rate's values were positive (see table 2), which can

be attributed to the dynamic economic development in the poviats. This especially applies to the Bełchatowski powiat, whose development is strongly based on the quarrying and power industry, and to the town of Skierniewice, that expands largely under the influence of the Warsaw agglomeration.

### **3. The level of socio-economic development**

Let us start characterization of the socio-economic situation in the Łódzkie voivodeship with assessment of its level of development against the national economy. It must be stressed that the living standard of population in the voivodeship is strongly shaped by the level of socio-economic development that determines employment opportunities and the level of wages paid, as well as the structure of consumption. The numbers of enterprises and of jobs, up-to-dateness of the economic structure, the quality of the socio-economic infrastructure, as well as educational opportunities also depend on it. The region's level of socio-economic development decides about the competitiveness and effectiveness of business operations that provide an important argument stimulating the inflow of foreign direct investments and of structural funds from the European Union that drive further regional growth.

The level of economic development in the voivodeship in relation to the national indicators was estimated using the following measures: GDP per capita, gross wages, the availability of dwellings and some durable articles in possession of households. Other possible measures applicable to the level, e.g. the condition of economic structure, the labour market situation, educational opportunities, or the number of businesses will be discussed in the next sections of the study.

The key measure employed to identify the standard of living (well-being) of population was GDP per capita. Assuming that the average GDP per capita in Poland is 100%, we can see that in years 2000-2006 the voivodeship's rate was below its national value, but it showed a slight upward tendency, reaching 89.1% and 91.8% of average Polish GDP per capita in the years 2000 and 2006, respectively (Statistical Yearbook of the Republic of Poland 2003, p. LXXXII – LXXXIII, Statistical Yearbook of Łódzkie Voivodeship 2007, p. 37). The conclusion arises that lower GDP per capital in the voivodeship than in Poland is the reflection of the relatively weaker growth tendencies in the voivodeship's economy in that period, especially that the number of population was falling concurrently, because of the negative natural increase.

**Table 3. Average gross wages in the Łódzkie voivodeship and in Poland, years 2001, 2003, 2005, 2006**

Specification	2001	2003	2005	2006
Average gross monthly wages (zlotys)				
- voivodeship of Łódź	1782.98	2019.0	2188.0	2288.0
- Poland	2045.11	2305.0	2507.0	2637.0
- voivodeship of Łódź/ Poland (%)	87.2	87.6	87.3	86.8

Source: Statistical Yearbook of the Republic of Poland 2003, pp. LXX, LXXI; Small Statistical Yearbook of Poland 2004, pp. 604; 2006, pp. 624; 2007, p. 646; Statistical Yearbook of Łódzkie Voivodeship 2003, p. 39.

The comparison of gross monthly wages (see table 3) also indicates that the living standard in the voivodeship was below the national average. In the analysed period, gross wages in the voivodeship of Łódź made up ca 87-88% of those paid in the country; therefore, the gap between voivodeship's wages and average wages for Poland was approximately 12–13%.

The standard of living was estimated using other measures as well, i.e. dwellings available to population and some durable goods in possession of households. The number of dwelling places per 1000 population ranks the voivodeship of Łódź first in the country. Between 2002 and 2006, the rate increased from 332.7 to 371, while its values for the country were 304.3 and 338, respectively. The usable floor area per person in the voivodeship was close to the national average. In 2002, it was 21.1 sq. m for Poland and 21.6 sq. m for the voivodeship. In 2006, the area increased in the voivodeship to 24.2 sq. m (fourth position in the country), against the country's average standing at 23.5 sq. m (Small Statistical Yearbook of Poland 2004, p. 604; 2007, pp. 646-647). Such good indicators place the voivodeship of Łódź among the leading regions in Poland, although large part of flats in old residential buildings is in a bad state of repair and poorly equipped.

Households' possession of durable goods in the voivodeship of Łódź should be rated positively (see table 4.). Numbers of some modern products such as satellite TV and refrigerators exceed the country's average. Regarding other durable goods, averages for the voivodeship and for the country are very similar; almost 98% of households in the voivodeship already have colour TVs, more than 73% automatic washing machines, 35% personal computers, 47% motor cars and more than 46% VCRs and video players.

**Table 4. Households' possession of selected durable goods in the voivodeship of Łódź and in Poland in 2005, % of all households**

Specification	Voivodeship of Łódź	Poland
TV set	97.8	98.2
Satellite TV receivers (including cable TV)	51.7	48.2
VCR, video player	46.6	46.7
PC	35.1	38.5
automatic washing machine	73.5	79.8
Refrigerator	97.6	97.3
Microwave oven	27.9	33.3
Motor car	47.1	47.4

Source: Statistical Yearbook of Łódzkie Voivodeship 2006, p. 157; Statistical Yearbook of the Republic of Poland 2006, p. 315.

The above indicators suggest that trying to make an explicit assessment of the living standard of population in the voivodeship and of the voivodeship's socio-economic development is a problematic task. Variations among individual poviats in the voivodeship provide especially solid grounds validating the statement. From data in table 5 it follows that in 2000 gross monthly wages exceeding the voivodeship's average were only earned in poviats Bełchatowski and Opoczyński, and in two towns with powiat status, i.e. Łódź and Skierniewice, but in 2006 only in powiat Bełchatowski and in the city of Łódź. In poviats Pajęcząński, Łęczycki and Skierniewicki, the levels of wages were close to average. These towns and poviats are the best economically developed units in the voivodeship. In the other poviats average monthly wages ranged from 77 to 93% of wages in the voivodeship.

**Table 5. Average gross monthly wages and dwellings in poviats of the Łódzkie voivodeship, years 2000 and 2006**

Specification	Average gross monthly wages (zlotys)		Occupied dwellings per 1000 population	
	2000	2006	2000	2006
Łódzkie	1743.15	2287.9	344.7	370.3
Poviats:				
Belchatowski	2584.99	3222.4	308.4	332.2
Brzeziński	-	1705.7	-	347.2
Kutnowski	1711.44	2127.1	330.2	355.8
Łaski	1465.81	1818.7	312.8	355.8
Łęczycki	1599.57	2186.6	300.7	313.4
Łowicki	1629.62	2068.8	300.5	323.6
Łódzki Wschodni	1460.57	1939.7	318.6	347.2
Opoczyński	1829.07	2154.7	291.6	315.4
Pabianicki	1585.74	2045.1	371.3	403.2
Pajęczański	1601.21	2226.5	283.8	302.1
Piotrkowski	1451.80	1771.1	286.4	313.4
Poddębicki	1492.45	1999.2	318.1	347.2
Radomszczański	1564.25	1804.4	318.3	346.0
Rawski	1481.90	1999.6	285.7	316.4
Sieradzki	1604.82	2025.5	284.5	306.7
Skierniewicki	1610.56	2141.3	279.5	301.2
Tomaszowski	1522.96	2006.1	331.9	359.7
Wieluński	1506.73	1847.6	283.4	306.7
Wieruszowski	1510.08	1976.3	276.4	298.5
Zduńskowolski	1610.73	1990.1	317.5	341.0
Zgierski	1511.94	2135.0	343.9	384.6
Towns with poviat status:				
Łódź	1845.22	2500.8	404.0	436.6
Piotrków Trybunalski	1398.52	1904.3	350.6	373.1
Skierniewice	1722.62	2111.2	332.9	371.7

Source: Powiaty w Polsce, GUS, Warsaw 2001, pp. 62–63; Statistical Yearbook of Łódzkie Voivodeship 2003, Statistical Office in Łódź, Łódź 2003, p. 74; Statistical Yearbook of Voivodeships 2002, GUS, Warsaw, p. CCLV, CCLVII; www.stat.gov.pl

The number of occupied dwellings per 1000 persons also showed variations among poviats. In general, the rate was on the increase between 2000 and 2006. In 2006, all three towns with poviat status and poviats Pabianicki and Zgierski had numbers of occupied dwellings per 1000 population higher than the voivodeship's average. In the other poviats, the rate ranged from 298 to 359 dwellings per 1000 persons.

The availability of various installations to households differed in towns and in rural areas of the voivodeship. In 2006, water was supplied to 94.2% of households in towns and to 79.5% in rural areas. Almost 70.5% of residential

buildings in towns were connected to the sewer, but only 27.4% in rural areas. Nearly 97.7% of households in towns and 2.3% in rural areas used gasworks gas (Statistical Yearbook of Łódzkie Voivodeship 2007, pp. 178-179). The rates show that in the voivodeship the standard of living is lower in rural areas than in towns.

#### 4. Economic structure

A useful element in the assessment of the region's socio-economic development is its economic structure. Structural analyses mainly operate two criteria, i.e. the form of ownership and the type of business activity. The analyses help identify roles played by the private sector and by the public sector, as well as a given economy sector's contribution to the total demand for labour. The benchmark against which changes taking place in the voivodeship of Łódź in that sphere were assessed is the structural adjustments made in the Polish economy between 2001 and 2006.

**Table 6. Employment structure by sector of ownership and by economy sector in the Łódzkie voivodeship and in Poland, years 2001 and 2006 (%)**

Specification	Voivodeship of Łódź		Poland	
	2001	2006	2001	2006
Employed in:				
- public sector	23.2	23.0	26.3	27.8
- private sector	76.8	77.0	73.7	72.2
Employed in:				
- agriculture <sup>a)</sup>	33.0	20.9	28.6	16.3
- industry <sup>b)</sup>	26.3	29.4	24.7	27.7
- services <sup>c)</sup>	40.7	49.7	46.7	56.0

<sup>a)</sup> Agricultural sector includes agriculture, forestry, hunting, fishery, and fish culture.

<sup>b)</sup> Industrial sector includes industry and building.

<sup>c)</sup> Services sector includes other market and non-market service activities.

Source: Statistical Yearbook of Łódzkie Voivodeship 2007, Statistical Office in Łódź, Łódź 2006, pp. 134; Small Statistical Yearbook of Poland 2007, pp. 140-141; author's calculations.

Data in table 6 illustrate the key variations in the structure of employment by ownership sector. The public sector's share in employment was declining, while the private sector was increasing its share. Because of the changes, in 2006 the private sector in the voivodeship of Łódź accounted for 77% of total employment. It is worth noting that the structure of employment by ownership

sector is more market-oriented in the voivodeship than in Poland, where the public sector still accounts for around 1/3 of all workers, and the private sector for 72%. The observed growing importance of the voivodeship's private sector must be viewed positively, because the sector is perceived as the engine of increased business effectiveness and competitiveness that stimulate economic development in the region.

Taking the type of business activity as the criterion, let us examine the evolution of employment structure in regard to the three sectors of economy (see table 6). According to the three-sector hypothesis, economic development shapes economic structure according to several known rules. The significance of the primary sector (agriculture) decreases considerably following economic development and so does its share in total employment. The role of the secondary sector (industry) depends on the development stage; its initially growing importance (increasing contribution to total employment) is replaced by stabilization, and then its weight diminishes in subsequent periods. The tertiary sector (services) keeps expanding together with the progressing economy and thereby its share in total employment steadily rises (Fourastie, 1954, pp. 126-137; Kwiatkowski, 1980, pp. 59 and next; Kwiatkowska, 2007, p. 25 and next).

In the analysed period, agriculture accounted for a relatively large share of employment in the voivodeship of Łódź compared with its national proportion, although the share showed a downward trend. In 2006, agriculture employed ca 21% of all workers in the voivodeship. Industry's share was growing in regional employment, likewise in the country, but the percentage of workers (over 29%) in that sector exceeded the national average. The services sector increased its share in total employment in the voivodeship, to around 50% in 2006, but compared with the national rate standing at 56%, the share is still relatively low.

It can be concluded, therefore, that the economic structure in the voivodeship of Łódź is less favourable than in the country. It reflects the fact that the voivodeship's GDP per capita is lower than average in the country. Structural changes must be continued in the voivodeship to narrow the development gap. Special attention should be paid to making expansion of the services sector more dynamic in the next years, because the sector is commonly believed to have the largest growth potential and it is perceived as an important force driving jobs creation and demand for labour. It is important to restructure the voivodeship's agriculture, whose high and stable share in employment calls for further adjustments in the agrarian structure, improvement of effectiveness, as well as formation of conditions enabling the creation of higher numbers of jobs for rural population outside agriculture. The main cause of the regional industry's growing share in employment is creation of new industrial firms,

inflow of foreign capital into the voivodeship, but national industry's share in employment in Poland is still observably lower.

Structural changes in the voivodeship's industry can be assessed by tracing variations in the shares of different products in total output of the voivodeship and of the country (see table 7)

Still in early 1990s, the light industry played an especially important role in the Łódzkie voivodeship – in 1989, it employed 54.9% of all workers in the voivodeship's industry and accounted for 51.3% of its industrial production (Kwiatkowski, 1995, p. 119). Fully justified was the opinion that the voivodeship of Łódź was a single-industry region resting on the light industry.

Data provided in table 7 show that the voivodeship of Łódź has retained its position of an important light industry centre in Poland. Despite falling production volumes of many products of that industry, the Łódzkie voivodeship still occupies the leading position in national production. For instance, in years 2000–2006 the voivodeship increased its production of woollen fabrics, thus enlarging considerably its contribution to national production (from ca 28% to 31.8%). The share of cotton fabrics produced in the Łódzkie voivodeship in 2006 was also substantial (35.5–52.2%), likewise in 2000. In 2006, the voivodeship was the major national producer of towel fabrics and special fabrics (46.2%), and hosiery (tights and panty hoses) (over 76%). It supplied 32% of the national production of men's trousers and almost 24% of women's blouses and shirts, as well as 83% of women's suits and women's clothing sets.

The above processes were accompanied by expanding production of other articles in the voivodeship, which indicated growing diversification of its structure of manufacturing. In the years in question, the share of brown coal extracted near Bełchatów in national production exceeded 58% and the related production of electric energy made up 18.5% of its total production in the country in 2006. Some building materials produced regionally are also important for national production (in 2006 ceramic tiles accounted for 53%).

**Table 7. Manufacture of selected products in the Łódzkie voivodeship, years 2000-2006**

Product	Unit of measure	2000		2006	
		Quantity	Share in country's production (%)	Quantity	Share in country's production (%)
1	2	3	4	5	6
Woollen fabrics or fabrics of carded fine animal hair	sq. km	1.7	27.9	1.5	31.8
Cotton fabric weighing to 200 g/sq. m	sq. km	96,2	40.5	40.4	35.5
Cotton fabric weighing above 200 g/sq. m	sq. km	16.4	42.0	17.7	52.2
Synthetic continuous filament fabric	sq. km	48,0	22.4	27.0	15.3
Towel fabric and other	sq. km	70.9*	81.0	24.2	46.2
Tights and panty hoses	thous. of pieces	80031	72.3	74980	76.7
Men's trousers	thous. of pieces	5345	22.9	6121	32.4
Woman's suits and clothing sets	thous. of pieces	1329	22.9	1228	82.3
Women's blouses and shirts	thous. of pieces	6566	22.0	5633	23.7
Men's shirts	thous. of pieces	2758	15.7	2246	19.5
Electric energy	GWh	29670.0	20.4	29839.9	18.5
Ceramic tiles	thous. of sq. m	31579*	68.4	50101	52.6

\* as of 2001

Source: Statistical Yearbook of Voivodeships 2002, pp. 259-262; Statistical Yearbook of Łódzkie Voivodeship 2006, pp. 271-272, 2007, pp. 288-289, Statistical Office in Łódź 2006; Statistical Bulletin of Łódzkie Voivodeship 2006, pp. 62-64; Small Statistical Yearbook of Poland 2007, GUS, Warsaw, pp. 349-350.

The above analysis shows that the regional economy still needs adjustments to modern requirements, especially when standards operated in the European Union are taken into account. Further modification of the economic structure seems especially desirable. The share of the services sector, relatively low compared with the rest of the country and particularly in relation to the EU, should be increased at the expense of the first two sectors of the regional economy, mainly agriculture. It is important to emphasise the development of market services, and of modern branches in industry. Despite certain diversification of the voivodeship's industrial structure, it continues to be rather obsolete. In the recent period, its further transformation could be observed, owing to the recovery of industries manufacturing pharmaceuticals, household appliances, packaging, furniture, electroengineering products, and clothing.

A more up-to-date structure of the economy might boost enterprise effectiveness and competitiveness. This is an important argument in favour of improving the presently inferior position of the voivodeship in terms of GDP per capita (in 2006 the rate stood at 92% of its national value) and of the level of average wages compared with other regions in the country.

Modern industrial products represent a relatively small share in the voivodeship's structure of production sold; for instance, in 2006 electric machinery and equipment accounted for 2.6%, radio, television and communication equipment and apparatus for 0.2%, medical, precision and optical instruments, clocks and watches for 0.6%. Food products and beverages (21.3%), textiles and clothing (11.6%) together with rubber and plastic products (7.3%) and non-metallic mineral products (8.0%) predominated in the structure of industrial production sold in 2006 (see Statistical Bulletin of Łódzkie Voivodeship 2006, pp. 59-60).

## 5. Conclusions

The above analysis allows us to formulate the following conclusions:

1. The voivodeship's economy still needs to be adjusted to the requirements of modern times, especially considering the EU standards. Particularly advisable are further changes in the voivodeship's economic structure. The relatively low contribution of the services sector, compared with the rest of the country and particularly with the EU member states, should be increased at the expense of the first two sectors of economy, mainly agriculture. Additionally, it is important to emphasise the development of the market services, and of modern branches of manufacturing.

2. Although the industrial structure in the voivodeship has been diversified to some extent, it is still rather obsolete. In the recent period, we have been able to observe its further transformation, owing to the recovery of industries manufacturing pharmaceuticals, household appliances, packaging, furniture and electroengineering products, as well as the clothing industry.
3. A more up-to-date structure of the economy can be expected to boost effectiveness and competitiveness growth in enterprises in the voivodeship of Łódź. This is an important argument for improving the present position of the voivodeship, which is inferior to that of other regions in the country in terms of GDP per capita and of the level of average wages.

## References

- Fourastie J. (1954), *Die Grose Hoffnung des zwanzigsten Jahrhunderts*, Bund-Verlang, Köln-Deutz.
- Kwiatkowska W. (ed.), (1998), *Rozwój ekonomiczny. Rynek pracy. Procesy migracyjne w województwie łódzkim*, IPiSS, Warsaw.
- Kwiatkowska W. (2007), *Zmiany strukturalne na rynku pracy w Polsce*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź.
- Kwiatkowski E. (1980), *Teoria trzech sektorów gospodarki*, PWN, Warsaw.
- Kwiatkowski E. (ed.), (1995), *Sytuacja na rynku pracy w województwie łódzkim w latach 1990–1994*, [in:] *Bezrobocie regionalne w Polsce w okresie transformacji*, Omega-Praxis, Łódź.
- Portrety polskich regionów* (2003), GUS, Warsaw.
- Powiaty w Polsce* (2001), GUS, Warsaw.
- Pracujący w gospodarce narodowej 2006* (2007), GUS, Warsaw.
- Statistical Bulletin of Łódzkie Voivodeship, 2006, Statistical Office in Łódź, Łódź, February 2007.
- Statistical Yearbook of the Republic of Poland 2001, 2002, 2003, 2006, GUS, Warsaw.
- Statistical Yearbook of Voivodeships 2002, GUS, Warsaw.
- Statistical Yearbooks of Łódź Voivodeship 2000–2003, 2006, Statistical Office in Łódź, Łódź.
- Website of the Voivodeship Labour Office: [www.wup.mm.com.pl](http://www.wup.mm.com.pl).