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Economic Sentiment Changes in the Lubelskie Voievodeship in the 4th Quarter of 2011

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This report is a result of the most recent (43rd) quarterly survey of economic sentiment in the Lubelskie Voievodeship[1] conducted on 2–21 January 2012 by the interviewers from Zamość University of Management and Administration. The questions they asked concerned the situation in the 4th quarter of 2011 and predictions for the 1st quarter of 2012.

1 Lubelskie Voivodeship

The Lubelskie Voivodeship (one of 16 Polish voievdeships) is situated in the south-eastern part of Poland in the interfluvial zone of the Vistula and Bug Rivers. On the west and north it borders on Mazowieckie Voivodeship, on the south on Podkarpackie, and on the south-west on Świętokrzyskie Voivodeship. On the east the Lublin region borders on Belorussia and Ukraine, creating at the same time the external border of Poland and the European Union. The location of the Lubelskie Voivodeship assures convenient room for economic growth on the capacious eastern markets. The Lublin region is located along the major transport routes linking the eastern and western part of the European continent. Across the area of the voivodeship run the shortest roads and railways through Berlin and Warsaw up to Minsk in Belorussia, Moscow in Russia, Luck, Kiev, Lviv and Odessa in Ukraine. Apart from that, the voivodeship is regarded as a peripheral region with a low level of economic development and capital expenditure attractiveness.

The Lubelskie Voivodship's area is 25 123 km^2([2]), which makes up 8% of the country's territory and places it in the third position among the Polish voivodeships.

The Lubelskie Voivodeship belongs to the depopulated regions. At the end of 2010 Lubelskie Voivodeship was inhabited by 2 151 009 people (5,6% of the citizens of Poland).

The region is characterized by a very low level of economic development. The expression of this is lower gross domestic product (GDP) per person comparing with the country's average; in 2009 it was 67,2% the country's average and was the lowest in Poland. At the same time the GDP per person created in the Lubelskie Voivodeship was only 37% of the EU average.

The structure of GDP and a gross added value in Lubelskie Voivodeship is slightly different than in the rest of the country. First of all there is a great contribution of agriculture, hunting, fishing and forestry to the creating of gross added value. On the other hand the contribution of the industrial and commercial services related to finance, real estate and company's services in creating GDP is much lower than the country's average. The labour efficiency per worker measured by gross added value of production is considerably lower in general as well as in individual

1. Voivodeship — Polish administration region on the NUTS2 level. Poland is divided into 16 voievdeships.

2. [In the journal (in both Polish and English texts) European practice of number notation is followed that is, 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.]

industries. In 2009 the gross added value per worker was only 68,8% of the country's average, and from this point of view the voivodeship placed in the last position in the country. There is little interest from foreign investors in the region. In years 2007–2010 Lubelskie Voivodeship each year saw direct foreign investments valued at 113 million euro and only in three voievodeships the investments were lower (*Raport Polska* 2011, 9)[3].

In the end of the year 2011 in Lubelskie were registered 162 100 enterprises of which 95,2% employed up to 9 persons and only 0,1% employed above 250 persons. The number of households is estimated at about 792 600.

2 Methodology of examining economic sentiment in the Lubelskie Voievodeship

The methodology of examining economic sentiment in the Lubelskie Voievodeship is similar, though by no means identical, to that recommended by the European Commission for examining economic sentiment on the national level (Kowerski 2009; Kowerski, Bielak, and Długosz 2009).

The examination of economic sentiment in the Lubelskie Voievodeship is performed in the following stages:

- sampling
- questionnaire surveys
- balances calculation
- seasonal adjustment of balances
- calculation of sector confidence indicators
- calculation of economic sentiment barometer

The survey is the fundamental tool used in examining economic sentiment. The questions contained in it are answered by both company managers and consumers. The number of questions for entrepreneurs does not exceed 10, while households are asked to answer 11 questions.

While examining economic sentiment of entrepreneurs and consumers (households) in the Lubelskie Voievodeship, we ask diagnostic questions referring to the situation in the last quarter and prognostic questions concerning predictions for the next quarter.

Industrial entrepreneurs are asked questions about the financial situation of their companies, its production volume, levels of orders, stocks and employment. Building and construction sector entrepreneurs are asked about the financial situation of their companies, volume of construction and assembly production, size of orders and employment. Traders are asked about the financial situation of their companies, their turnover, merchandise stocks and employment. Service providers are asked about the financial situation of their companies, their turnover and employment. Consumers (household members) give information on the financial situation of their households, their expenses, savings and their evaluation of the economic situation and job market in the Lubelskie Voievodeship.

In our examination of economic sentiment in the Lubelskie Voievodeship most businesspeople and approximately half of households were interviewed directly while others were questioned in a telephone survey.

The obtained answers are then processed using the balances method.

The respondents have three answers to the question: situation improved (positive answer), remained unchanged, worsened (negative answer). Net balance is calculated as the difference between percentage of positive and negative answers, in line with the formula

$$B = P - N, \tag{1}$$

where:
B — net balance,
P — percentage of positive answers (claiming there has been an improvement),
N — percentage of negative answers (claiming that the situation has worsened).

3. *Report Poland 2011. Economy-society-regions.*

This means that we do not take into account the "no change" answers. The balances may have the values from −100 to 100. The −100 value would be reached if all respondents unanimously claimed that the situation has deteriorated, while 100 value would be achieved if all respondents claimed that the situation has improved. If the balance equals 0, this indicates that half of the respondents are pessimists (they answer that the situation has declined) while the other half are optimists (believing that the situation has improved).

The balances of answers then serve as a foundation for the creation of time series. However, prior to this, the balance values are subject to seasonal adjustment using the Cenzus II method from Statistica 7.0 software.

Diagnostic and prognostic confidence indicators in particular business sectors of the Lubelskie Voievodeship (industry, building and construction, trade, services, households) are calculated on the basis of selected diagnostic and prognostic questions. Sector confidence indicators are arithmetic means of seasonally adjusted balances of answers to selected questions, their values ranging from −100 to 100. It should be noted that due to the random choice of the sample, balances of answers to particular questions are not weighed with sample weights.

Indicators of economic sentiment are synthetic measures of sentiment among businesspeople representing all sectors and consumers. The general economic sentiment indicator in the Lubelskie Voievodeship is a weighted arithmetic mean of sector confidence indicators and ranges from −100 to 100, while the share of the weights of particular indicators in the total value of the indicator are established taking into account the size weights which represent shares of particular sectors in total gross added value generated in the Lubelskie Voievodeship.

Quarterly surveys of economic sentiment in the Lubelskie Voievodeship have been conducted since the 2nd quarter of 2001. So far we have carried out 43 surveys and collected 16 160 questionnaires from entrepreneurs and around 17 200 questionnaires from households.

3 Characteristics of the surveyed enterprises and households

3.1 Enterprises

In the 4th quarter of 2011 we covered 474 enterprises with our survey, including 88 industry, 99 building and construction, 122 trade and 165 service enterprises. Both enterprises and households were picked in line with the representative method principles, allowing us to make conclusions with the error margin of below 5%. Enterprises were picked proportionally to the employment size.

Tab. 1. The structure of the examined enterprises divided into sectors at the end of 2011

Sector	Number of surveyed enterprises	Share (%)
Construction	99	20,89
Trade	122	25,74
Industry	88	18,57
Service	165	34,81
Total	474	100,00

The group of enterprises covered by the survey is dominated by small and very small entities. Enterprises employing from 10 to 49 workers constituted 33% of all surveyed enterprises, while those with staff of 1–9 people accounted for nearly 32%.[4] Approximately 29% of the surveyed enterprises employ between 50 and 249 staff. The smallest group of the surveyed enterprises (which is explained by the real employment structure in enterprises of the Lubelskie Voivodeship) was

4. It should be noted that companies employing between 1 and 9 people account for as many as over 95% of all companies operating in the Lubelskie Voivodeship, but while picking enterprises it was assumed that the number of companies picked in a particular sector is proportional to the share of a particular employment group in the total employment of the sector, which accounts for the fact that the number of the smallest companies in the surveyed sample decreased considerably.

that of large entities, employing over 250 people. In the 4th quarter of 2011, they equaled only 7% of all surveyed enterprises.

Tab. 2. The structure of the examined enterprises by the number of employees at the end of 2011 (%)

Number of workers	Percentage share
1–9	31,65
10–49	32,91
50–249	28,69
250 and above	6,75
Total	100,00

Most of the surveyed micro-enterprises provide services (43%) and deal with trade (38%). Among enterprises employing between 10 and 49 workers, 37% of the surveyed entities operated in the service sector, while 24% of them were active in the trade and 21% in the construction sector. As far as companies employing between 50 and 249 people are concerned, this group was dominated by industrial companies. The largest enterprises with staff of over 250 mostly belonged to the industry and construction sectors (34% each).

Tab. 3. The structure of the examined enterprises by employment and sector at the end of 2011 (%)

Number of workers	Percentage share in sector			
	Construction	Trade	Industry	Service
1–9	15,33	38,00	4,00	42,67
10–49	20,51	23,72	19,23	36,54
50–249	24,26	16,91	30,15	28,68
250 and above	34,38	15,63	34,38	15,63
Total	20,89	25,74	18,57	34,81

As far as the size of revenue (turnover) is concerned, in 2010 most of the surveyed enterprises were those with revenues belonging to the lowest bracket, below PLN 0,5 million (31%) and those whose revenues exceeded PLN 5 million (29%).

Tab. 4. The structure of the examined by gross receipts (turnover) in 2010 (%)

Gross receipts (PLN, million)	Percentage share
Less than 0,5	31,21
0,5–2,5	23,40
2,5–5	15,96
5 and above	29,43
Total	100,00

Tab. 5. The structure of the examined enterprises by gross receipts (turnover) and sector in 2010 (%)

Gross receipts (PLN, million)	Percentage share in sector			
	Construction	Trade	Industry	Service
Less than 0,5	10,23	32,95	1,14	55,68
0,5–2,5	25,76	24,24	16,67	33,33
2,5–5	11,11	33,33	13,33	42,22
5 and above	25,30	26,51	27,71	20,48
Total	18,44	29,08	14,54	37,94

Most entities with revenues below PLN 0,5 million provide services (56%), while the lowest number of them deal with industrial activity. In the revenue brackets of PLN 0,5–2,5 million and PLN 2,5–5,0 million, service providers also prevail among the surveyed enterprises. The largest surveyed enterprises with revenues exceeding PLN 5 million belong to the industry sector (nearly 28%).

3.2 Households

The survey covered 500 randomly chosen households. Women constituted 53% of the respondents.

Tab. 6. The structure of the surveyed sample by sex and place of living (%)

Sex	City	Country	Total
Women	48,05	57,95	53,33
Men	51,95	42,05	46,67
Total	100,00	100,00	100,00

Nearly 44% of respondents were aged 31–50.

Tab. 7. The structure of the surveyed population sample by age (%)

Age	Urban dwellers	Rural dwellers	Total
Less than 20	0,44	1,56	1,04
21-30	14,98	16,41	15,73
31-40	19,38	17,58	18,43
41-50	30,84	20,31	25,26
51-60	21,59	22,66	22,15
61-70	9,25	13,67	11,59
71-80	3,08	6,25	4,76
81-90	0,44	1,56	1,04
Total	100,00	100,00	100,00

Most respondents declared that the income per capita in their households in the 4th quarter of 2011 amounted to PLN 500–899 (34,5%), this figure covering both rural and urban households. Income exceeding PLN 1200 was declared by 17% of respondents, while 5,5% of respondents stated that their income was below PLN 300.

Tab. 8. The structure of the surveyed population sample by income per capita (%)

Income per capita (PLN)	Urban dwellers	Rural dwellers	Total
Less than 300	3,43	7,39	5,51
300-499	12,88	28,40	21,02
500-899	34,76	34,24	34,49
900-1199	26,18	17,90	21,84
1200 and above	22,75	12,06	17,14
Total	100,00	100,00	100,00

Among the surveyed household members, nearly half (48%) had secondary education, while 22% had higher education degrees.

Taking into account the job market status of the surveyed people, we can notice that the most numerous groups of respondents were those working outside agriculture (35%) and pensioners and old-age pensioners — among the surveyed village dwellers nearly 29% are pensioners or old-age pensioners. People working in agriculture constituted 12% of the respondents while 4% of the

Tab. 9. The structure of the surveyed population sample by educational level (%)

Educational level	Urban dwellers	Rural dwellers	Total
Incomplete primary	0,00	0,79	0,42
Primary	6,28	13,39	10,06
Vocational secondary	13,45	24,80	19,50
Seconday	53,81	43,31	48,22
Higher	26,46	17,72	21,80
Total	100,00	100,00	100,00

surveyed population were dependents. The survey also comprised 7% of unemployed people, the number being slightly higher for village inhabitants.

Tab. 10. The structure of the surveyed population sample by employment status in labour market (%)

Employment status	Urban dwellers	Rural dwellers	Total
Unemployed	6,01	8,37	7,26
Supported by family	2,58	6,08	4,44
Working in agriculture	3,00	19,77	11,90
Working outside agriculture	44,64	26,24	34,88
Pensioners and old-age pensioners	19,74	28,52	24,40
Own business activity	14,16	5,32	9,48
Other	9,87	5,70	7,66
Total	100,00	100,00	100,00

4 Economic sentiments among entrepreneurs and households in the 4th quarter of 2011

4.1 Total economic sentiment barometer

In the 4th quarter of 2011, the total diagnostic economic sentiment barometer reached the value of –10 points, which is an increase of 3 points compared with the previous quarter. However, its considerable negative value denotes significant pessimism in the economy of the Lubelskie Voivodeship.

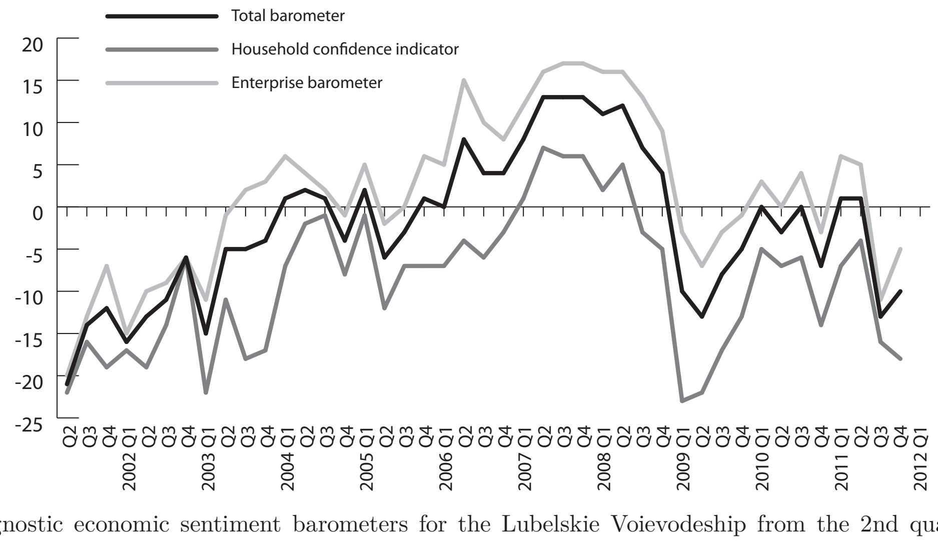

Fig. 1. Diagnostic economic sentiment barometers for the Lubelskie Voievodeship from the 2nd quarter of 2001 to the 4th quarter of 2011

In the 4th quarter of 2011, economic sentiment among entrepreneurs improved while households experienced its worsening.

The total prognostic economic sentiment barometer calculated on the basis of the questions referring to the next quarter equals −6 points. It is, then, slightly higher than the barometer for the 4th quarter of 2011, though it still has negative value, which seems to defer the moment when the voievodeship economy emerges from the current recession.

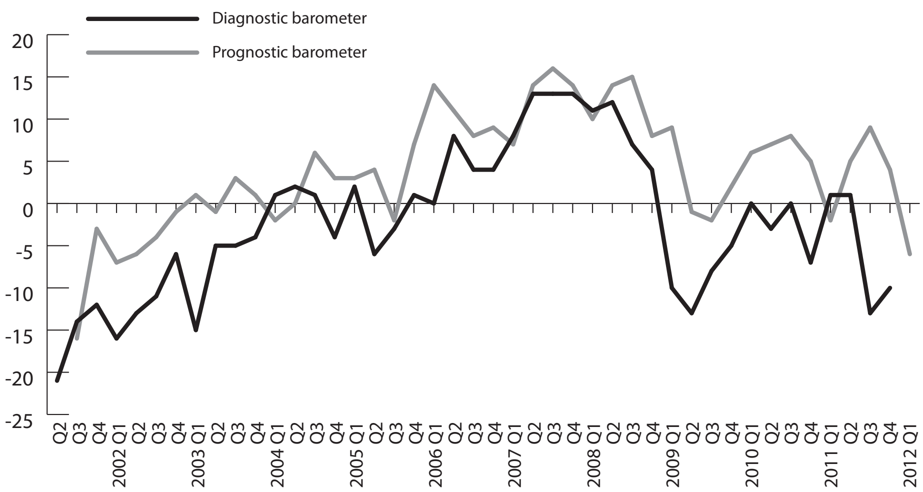

Fig. 2. Total diagnostic and prognostic economic sentiment barometers for the Lubelskie Voievodeship from the 2nd quarter of 2001 to the 4th quarter of 2011

4.2 The barometer of economic sentiment among enterprises

Economic sentiment among enterprises in the 4th quarter of 2011 compared with the previous quarter has improved, but the barometer remains negative, which indicates more pessimism. The value of the prognostic economic sentiment barometer in the 1st quarter of 2012 (−5 points) equals the diagnostic barometer in the 4th quarter of 2011, which points at economic stagnation of the region.

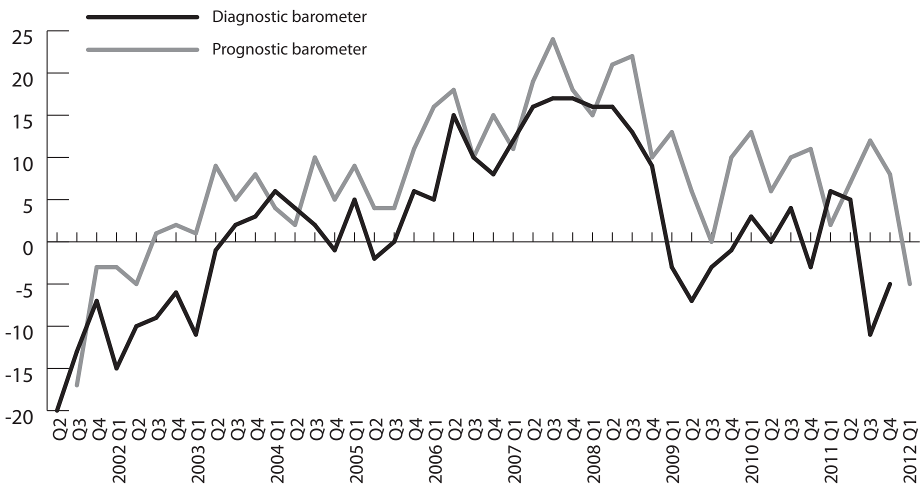

Fig. 3. Diagnostic and prognostic enterpise economic sentiment barometers for the Lubelskie Voievodeship from the 2nd quarter of 2001 to the 4th quarter of 2011

4.3 Confidence indicator among households

Negative economic sentiment among households further deteriorated in the 4th quarter of 2011. The diagnostic household confidence indicator in the 4th quarter equaled −18 points (a decrease by two points).

Household members predict that in the 1st quarter of 2012 the voievodeship as well as their households will experience some improvement, although the prognostic household confidence indicator still shows a negative value of −8 points.

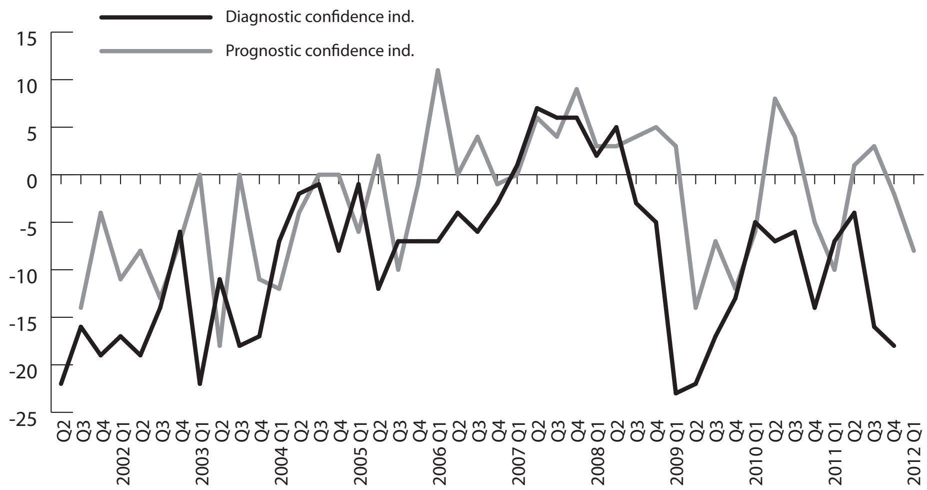

Fig. 4. Diagnostic and prognostic household confidence indicators for the Lubelskie Voievodeship from the 2nd quarter of 2001 to the 4th quarter of 2011

In the 4th quarter of 2011, compared with the previous survey, the majority of respondents declared that most components of the diagnostic economic sentiment indicator have deteriorated. The level of expenditure on consumer goods received the best evaluation and was the only positive component of the indicator in the survey (more evaluations declaring increased expenditure on consumer goods). The job market situation and the economic situation of the voievodeship received the worst marks.

Tab. 11. Components of diagnostic household confidence indicator in the 4th quarter of 2011

Component	Balance
Evaluation of household financial situation	−24 ↔
Level of expenditure on consumer goods	38 ↗
Savings	−30 ↘
Evaluation of economic situation in the Lubelskie Voievodeship	−33 ↘
Evaluation of job market situation	−40 ↘

Note: Arrows indicate change in comparison to previous quarter

It is worth observing that households assess their own situation slightly better (though still negatively) than the economic situation of the region.

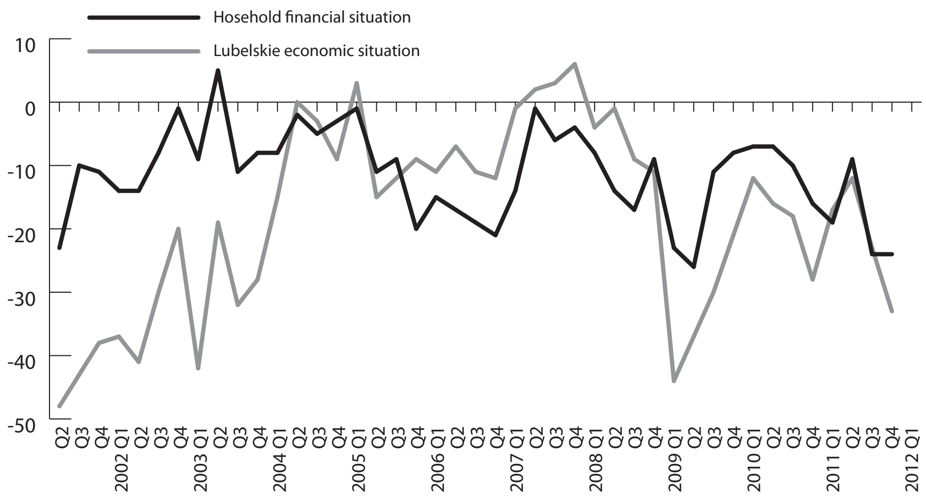

Fig. 5. Evaluation of household financial situation and economic situation in the Lubelskie Voievodeship

As we have already indicated, the predictions for the situation in the next, 1st quarter of 2012, is better than the diagnosis of the situation in the present quarter, though it still remains pessimistic. The balances of answers to the questions related to the predicted financial situation and savings of households and to the future economic situation of the voievodeship are still higher than the diagnostic balances. The highest percentage of pessimistic evaluations concerns the predicted unemployment level in the Lubelskie Voievodeship, while the balance of answers to the question concerning the job market predictions has the all-time low value (4 points lower than the lowest prediction so far — referring to the 1st quarter of 2003).

Tab. 12. Components of prognostic household economic sentiment indicator for the 1st quarter of 2012

Component	Balance
Predicted financial situation of household	−15 ↗
Predicted level of expenditure on consumer goods	33 ↘
Predicted savings	−24 ↗
Evaluation of future economic situation in the Lubelskie Voievodeship	−25 ↗
Predicted unemployment level in the Lubelskie Voievodeship	−47 ↘

Note: Arrows indicate change in comparison to previous quarter

4.3.1 Consumer confidence indicators broken down into city and country dwellers

The economic confidence indicator among consumers differs depending on their place of residence. In our surveys so far city dwellers have shown better confidence than inhabitants of villages. Out of 37 calculated diagnostic confidence indicators divided into city and country, only in 7 cases (around 19%) the economic sentiment in the country was better than in the city. In 12 cases these changes had different directions (the confidence of one group improved while that of the other deteriorated). Additionally, the verification of the hypothesis concerning the significance of the difference in mean values of diagnostic consumer confidence indicators divided into the city and the country points out that the confidence of city dwellers and villagers statistically differ at the significance level of 0,0085 (for 37 observations so far the average value of the indicator for city dwellers was −4,7, while for inhabitants of villages it was −10,3).

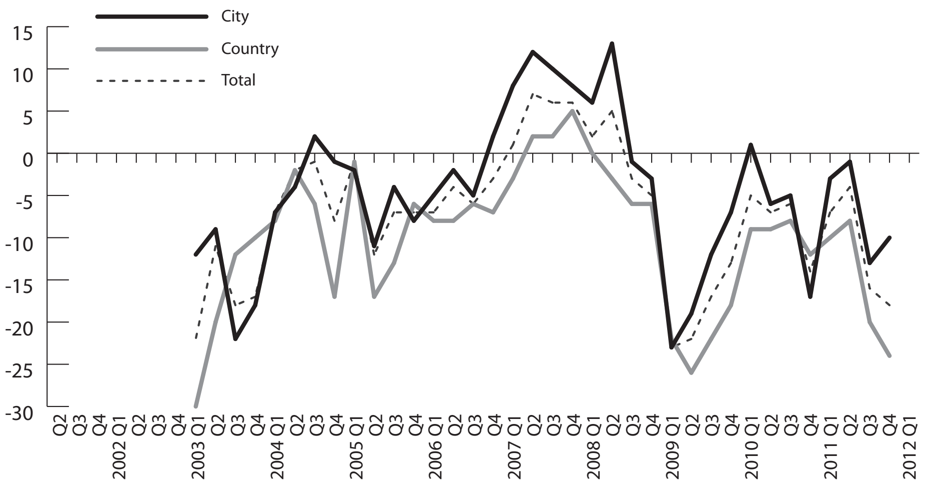

Fig. 6. Diagnostic household confidence indicator broken down into city and country inhabitants for the Lubelskie Voievodeship from the 2nd quarter of 2001 to the 4th quarter of 2011

In the 4th quarter of 2011 the confidence of city households improved while the confidence of country households deteriorated. The diagnostic economic sentiment indicator in cities equaled −10 points, while in the country it was −24 points and had one of the lowest values in the entire history of our surveys. Therefore we can state that the differences in the economic sentiment in the city and in the country were deepened.

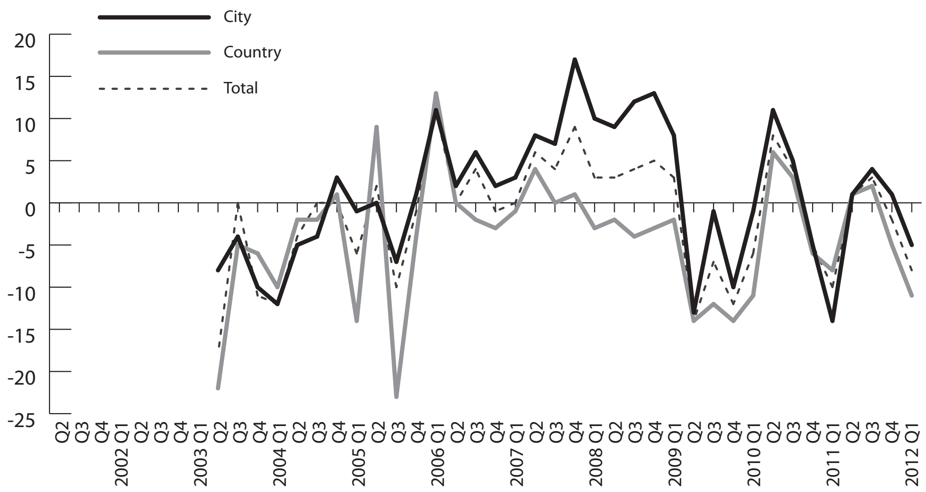

Fig. 7. Prognostic household confidence indicator broken down into city and country inhabitants for the Lubelskie Voievodeship from the 2nd quarter of 2001 to the 4th quarter of 2011

The predictions of their own economic situation and the economic situation of the voievodeship made by households for the 1st quarter of 2012 point at slight improvement of confidence, though pessimists still prevail and the level of pessimism is still higher in the country than in the city.

5 Confidence indicators in particular sectors

In accordance with the accepted methodology, seasonally adjusted balances of answers to diagnostic and prognostic questions in particular sectors were averaged, which allowed us to obtain sector confidence indicators.

5.1 Industry

In the 4th quarter of 2011 the confidence indicator in the industry sector improved, which was manifested in an increase of 6 points compared to the previous quarter (to −2 points). However, pessimism still dominated. Predictions though, are more optimistic. The prognostic confidence indicator for the 1st quarter of 2012 equals 2 points and it is the only sector in which there are more optimistic than pessimistic predictions.

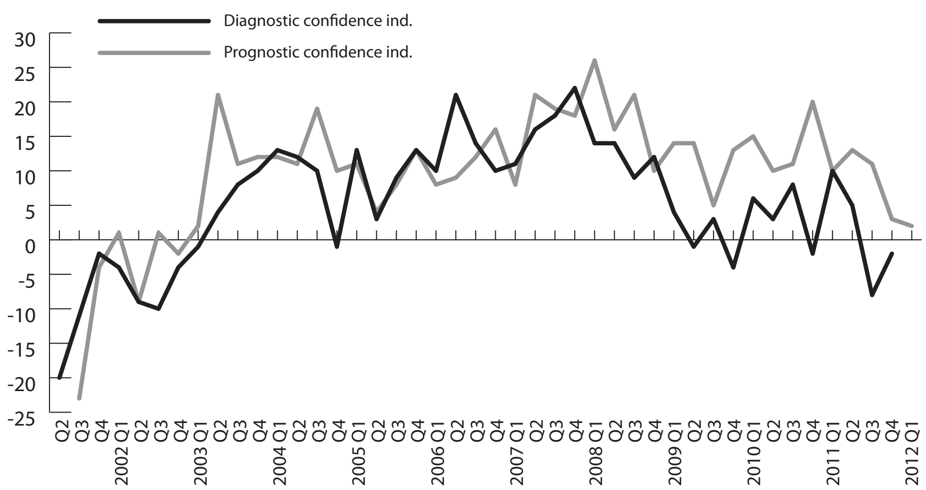

Fig. 8. Diagnostic and prognostic confidence indicators in the industry sector from the 2nd quarter of 2001 to the 4th quarter of 2011

In the 4th quarter the balances of all components of the diagnostic confidence indicator in industry grew, except for the level of finished products stock. However, only the balances of production size and inventories level were positive.

Tab. 13. Components of diagnostic confidence indicator in the industry sector in the 4th quarter of 2011

Component	Balance
Financial situation of enterprise	−7 ↗
Sold production volume	4 ↗
Number of orders	−7 ↗
Finished products stock level	2 ↘
Number of employees	−3 ↗

Note: Arrows indicate change in comparison to previous quarter

The surveyed entrepreneurs operating in the industry sector predict that, compared to the 1st quarter of 2011, they will experience increased volume of production sold, improved financial situation of their companies and increased level of orders in the 1st quarter of 2012. On the other hand, they expect that the situation will deteriorate as far as the level of stocks of finished products is concerned (the inventories will grow) as well as employment, which in most of the surveyed companies will shrink.

Tab. 14. Components of prognostic confidence indicator in the industry sector for the 1st quarter of 2012

Component	Balance
Predicted financial situation of enterprise	12 ↗
Predicted sold production volume	10 ↗
Predicted number of orders	−2 ↗
Predicted finished products stock level	0 ↘
Predicted number of employees	−12 ↘

Note: Arrows indicate change in comparison to previous quarter

5.2 Construction

In the 4th quarter of 2011 construction was the only sector in which the confidence indicator was optimistic. The diagnostic confidence indicator equaled 10 points and grew by 8 points in relation to the previous quarter. The forecast for the 1st quarter is not so optimistic, though. The prognostic confidence indicator (despite seasonal adjustment) is negative (−8 points).

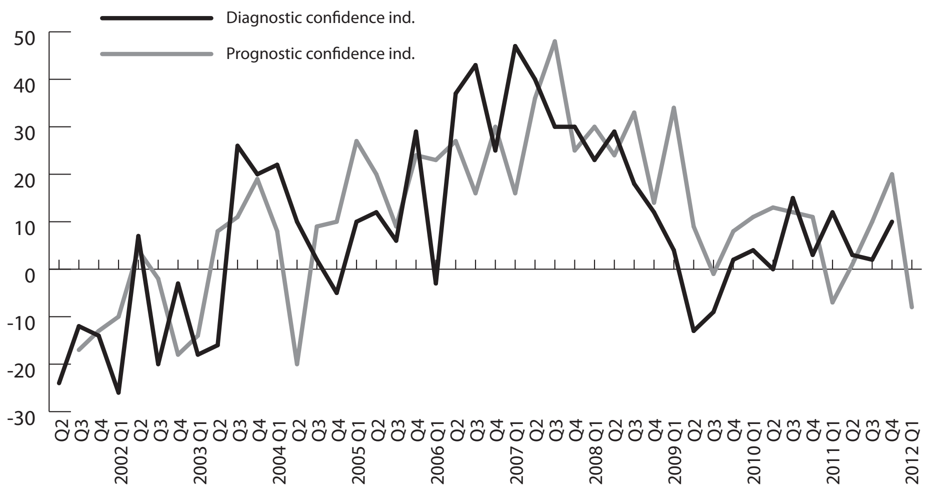

Fig. 9. Diagnostic and prognostic confidence indicators in the construction sector from the 2nd quarter of 2001 to the 4th quarter of 2011

In the 4th quarter of 2011, in comparison with the previous quarter, three balance values of indicators making up the diagnostic confidence indicator in construction grew: these were financial situation, size of construction and mounting production and size of orders — they were all positive, which means that most of them improved. However, the balance of changes in employment size did not change and, as in the previous quarter, it remained negative.

Tab. 15. Components of diagnostic confidence indicator in the construction sector in the 4th quarter of 2011

Component	Balance
Financial situation of enterprise	12 ↗
Construction and assembly volume	18 ↗
Number of orders	13 ↗
Number of employees	−5 ↔

Note: Arrows indicate change in comparison to previous quarter

As we have already indicated, the surveyed building and construction entrepreneurs predict that in the 1st quarter of 2012 the situation will worsen, all components of the prognostic economic sentiment indicator are lower than in the diagnosis of the 4th quarter of 2011 and no balance is positive.

Tab. 16. Components of prognostic confidence indicator in the construction sector for the 1st quarter of 2012

Component	Balance
Predicted financial situation of enterprise	0 ↘
Predicted construction and assembly volume	−15 ↘
Predicted number of orders	−5 ↘
Predicted number of employees	−12 ↘

Note: Arrows indicate change in comparison to previous quarter

5.3 Trade

The confidence indicator in the trade sector in the 4th quarter of 2011 slightly improved compared to the previous quarter, but it remained very pessimistic. The diagnostic confidence indicator in trade had the value of −11 points. Also forecasts remain pessimistic, though the prognostic confidence indicator in trade in the 1st quarter of 2012 is higher than the diagnosis for the previous quarter and equals −6 points.

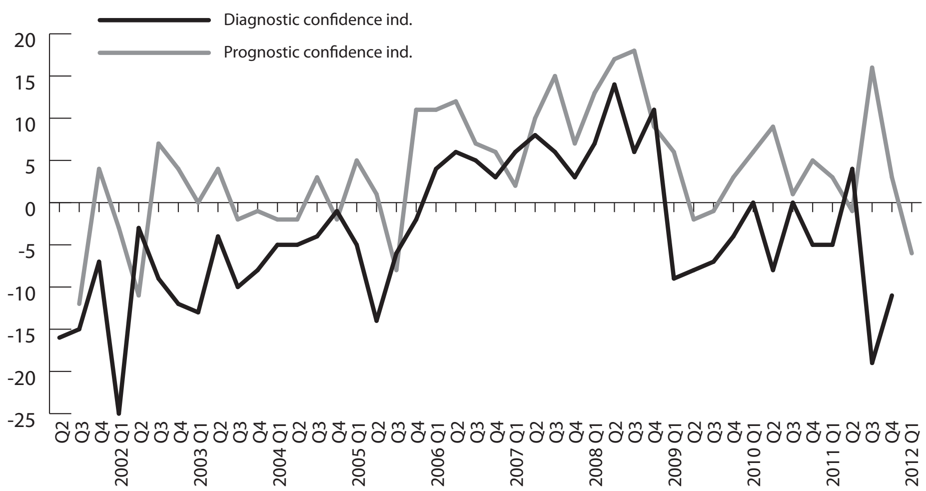

Fig. 10. Diagnostic and prognostic confidence indicators in the trade sector from the 2nd quarter of 2001 to the 4th quarter of 2011

In the 4th quarter of 2011 all components of the diagnostic confidence indicator in trade improved compared to the previous quarter, but at the same time they all had negative values, which means that the companies informing about the worsening of their situation still prevailed.

Tab. 17. Components of diagnostic confidence indicator in the trade sector in the 4th quarter of 2011

Component	Balance
Financial situation of enterprise	−18 ↗
Turnover volume	−23 ↗
Products stock level	−2 ↗
Number of employees	−2 ↗

Note: Arrows indicate change in comparison to previous quarter

Also all components constituting the prognostic confidence indicator for the 1st quarter of 2012 are negative, though their values increased, except for employment.

Tab. 18. Components of prognostic confidence indicator in the trade sector for the 1st quarter of 2012

Component	Balance
Predicted financial situation of enterprise	−10 ↗
Predicted turnover volume	−5 ↗
Predicted products stock level	0 ↗
Predicted number of employees	−9 ↘

Note: Arrows indicate change in comparison to previous quarter

5.4 Service

In the 4th quarter of 2011 the confidence indicator in the service sector had the value of −8 points, an increase of 3 points compared to the previous quarter. Service providers predict that the situation of their companies as well as the situation of the voievodeship economy will worsen in the 1st quarter of 2012. This is confirmed by the drop in the value of the prognostic economic sentiment indicator to the value of −10 points.

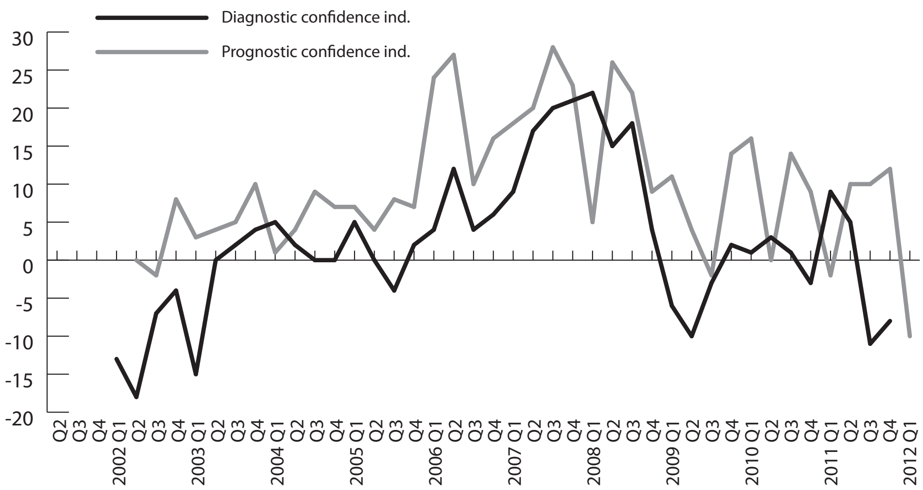

Fig. 11. Diagnostic and prognostic confidence indicators in the service sector from the 2nd quarter of 2001 to the 4th quarter of 2011

Compared with the previous quarter, the 4th quarter of 2011 saw an improvement in financial situation and employment of service enterprises and a decline in demand for their services. However, companies signaling the worsening situation still prevailed (negative values of all components making up the diagnostic economic sentiment indicator in services).

In the 1st quarter of 2012 the components of the prognostic confidence indicator in services will behave contrarily to the behavior of the components constituting the diagnostic confidence indicator in the 4th quarter of 2011. Service providers predict that the financial situation and employment in their companies will worsen, but the demand for their services will grow.

Tab. 19. Components of diagnostic confidence indicator in the service sector in the 4th quarter of 2011

Component	Balance
Financial situation of enterprise	−14 ↗
Demand for service	−3 ↘
Number of employees	−5 ↗

Note: Arrows indicate change in comparison to previous quarter

Tab. 20. Components of prognostic confidence indicator in the service sector for the 1st quarter of 2012

Component	Balance
Predicted financial situation of enterprise	−18 ↘
Predicted demand for service	2 ↗
Predicted number of employees	−12 ↘

Note: Arrows indicate change in comparison to previous quarter

6 The economic sentiment barometer in the Lubelskie Voievodeship and the economic sentiment barometers in Poland and the European Union

As in our previous reports, we have compared the course of the Lubelskie Voievodeship barometer with the economic sentiment barometers in Poland and the European Union.[5]

The comparisons we have made between the barometers calculated with the methodology of the European Commission Economic Sentiment Index for Poland and the European Union and the economic sentiment barometer for the Lubelskie Voievodeship points at largely maintained synchronicity of changes, especially of the barometers for Poland and the Lubelskie Voievodeship, which has been especially noticeable since the 4th quarter of 2002.[6] At the same time, the analysis of the graph showing changes of the three indexes shows clear delay of the economic sentiment barometer for the Lubelskie Voievodeship in comparison with both barometers calculated using the European Commission methodology. For example, the economic sentiment indexes in the European Union and Poland reached their bottom value in March 2009, while the Lubelskie Voievodeship barometer hit the bottom in June.

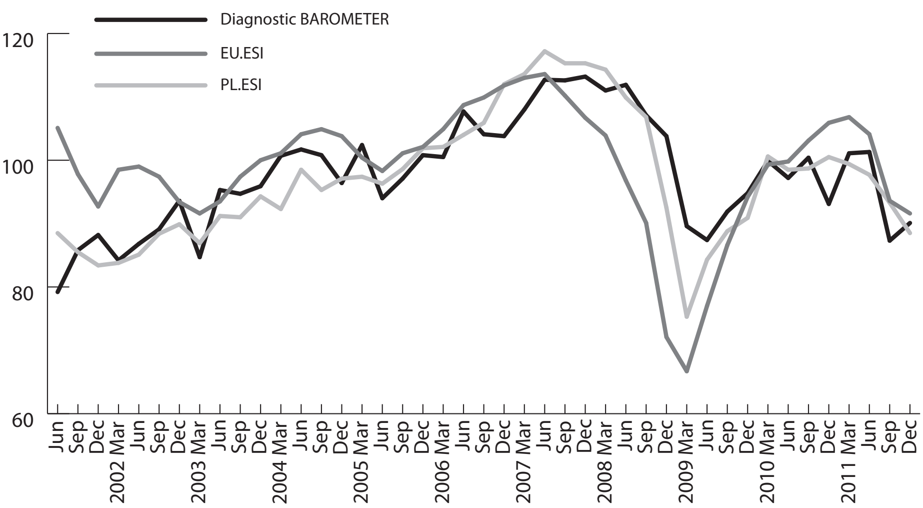

Fig. 12. The economic sentiment barometer in the Lubelskie Voievodeship versus the economic sentiment barometers in Poland and the European Union

5. Although the methodology of surveying economic sentiment in the Lubelskie Voivodeship only generally corresponds to the methodology used by the European Commission for calculating economic sentiment indexes in particular member countries or in the entire European Union, (*The Joint Harmonised EU Programme of Business and Consumer Surveys User Guide*. European Commission, Directorate General Economic and Financial Affairs, Brussels 4 July 2007), and in spite of the fact that regions have specific features compared to national economies.

6. It should be emphasized that due to the differences in methodologies it is justified (taking appropriate precautions) to compare directions of changes (correlations), not the values of barometers.

A very high degree of correlation and at the same time delay of the economic sentiment barometera and confidence indicators in the Lubelskie Voievodeship in comparison with the indicators in the European Union and Poland are confirmed by the correlation analysis.

The relations between sector confidence indicators and the diagnostic economic sentiment barometer for the Lubelskie Voievodeship and respective indicators and barometers for Poland and the European Union are statistically significant at the level of 0,05 significance, both for parallel correlations and correlations delayed by up to 6 months.

In 2001–2011 the economic sentiment barometer for the Lubelskie Voievodeship was most strongly correlated with the economic sentiment index for Poland delayed by one month. This means that entrepreneurs and consumers from the Lubelskie Voievodeship react to economic changes one month after the average reaction in Poland. This relation to some extent also refers to particular sectors; in case of trade and construction the parallel correlation is the highest, while in case of services it is delayed by three months.

The correlation of particular sector confidence indicators and the diagnostic barometer for the Lubelskie Voievodeship with respective indicators and the economic sentiment index for the entire European Union is much lower, but also statistically significant at the level of at least 0,05. Here we can observe a greater, 3-month delay of the Lubelskie Voievodeship compared to the European Union.

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