

The multi-dimensional structural analysis of bankruptcy of enterprises in Poland in 2013 – results of empirical studies

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Abstract. This article shows the results of multi-dimensional studies on enterprises subject to bankruptcy in 2013. This article discusses the structure of entities on the basis of the following criteria: legal and organizational form, ownership form, and the main profile of business activities indicating the industrial belonging of bankrupt and insolvent debtors. The studies were also oriented towards the evaluation of the analysed phenomenon on a regional basis, i.e. in the administrative division of Poland. The author evaluating the level of concentration of bankruptcy processes, particularly in provinces of Poland, applied the LQ coefficient used in economic geography to study the intensification level of selected spacious phenomena.

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INTRODUCTION

Statistics included in this article which constitute the basis for the conducted analyses originate from the publication of court rulings pertaining to bankruptcies of enterprises collected by the author directly from publications of commercial courts in the Court and Commercial Journal. The background of these bankruptcy statistics recorded and discussed in the study about the administrative division of Poland was the most updated data (gathered as of 20 January 2014) from the Local Data Bank of the Central Statistical Office. As of the day of closing statistics, bankruptcies of enterprises declared in 2013 were compared to the condition of national business entities registered in the National Official Register of Business Entities at the end of the 3rd quarter of 2013. As they were the most updated statistical data made available in January 2014 by the Central Statistical Office. In line with the above, in order to collect a statistical material necessary to carry out structural studies, the publications of the Court and Commercial Journals issued from 1 January 2013 to 20 January 2014 were particularly analysed.

The analysis of quantitative and structural changes in the number of bankruptcies of enterprises constitutes a very important research area which should be permanently monitored by the broadly defined research pertaining to the so-called business demography. Although the term "business demography" is commonly applied abroad - both by the Eurostat and a vast array of independent scientists (statisticians, economists, geographers and the like), its etymology raises some reservations and oppositions, e.g. in the milieu of Pol-

ish statisticians (Domański, Szreder, 2010, pp.36-40); (Stefanowicz, 2011, pp.36-37); (Walkowska, 2010, p.40); (Paradysz, 2011, pp.27-35); (Dominiak, 2005, p.188); (Ptak-Chmielewska, 2012, pp.1-15).

Apart from this terminology discussion, it is necessary to agree that the issue of bankruptcy of enterprises constitutes a very essential research field which interests not only scientists, but primarily businessmen in periods of prosperity and recession. The aim of the research was to indicate some noticeable quantitative changes and tendencies in the development of this phenomenon, as well as to evaluate changes in its internal structure. Further, the conducted studies focused on the analysis of bankruptcy processes in individual provinces of Poland. Due to the restricted size of this article, the author narrowed research results and discussed them with respect to the entire Poland and the general administrative division of Poland from the perspective of the individual provinces and without their precise and specific characteristics.

1. THE METHODOLOGY OF REGIONAL IDENTIFICATION AND ASSESSMENT THROUGH USING THE BANKRUPTCY PROCESSES CONCENTRATION CRITERION

Regional analyses aimed at developing a ranking of provinces characterized by the lowest concentration of bankruptcy processes were based on a measure applied in economic geography called the LQ coefficient (location quotient). By analysing the scale of bankruptcy processes not only on an all-Poland basis, but also with respect to the individual regions, their intensity can be referred to the number of enterprises registered in a given province. Therefore, a map of bankruptcy processes becomes relativised with respect to a factual intensity of business processes in a given region of Poland. For the research purposes it was determined that the LQ coefficient is a relative assessment of the concentration of enterprises declared to be bankrupt in a specific region [U_{REG} / N_{REG}] with respect to a total number of business entities belonging to the analysed group in the economy with respect to all business entities operating in the state economy [U_{PL} / N_{PL}]. This concentration of bankruptcy processes was expressed by the following formula (Gilmer, Keil, Mack, 1989, pp.3-6).

$$LQ_{REG(i)} = \frac{U_{REG(i)} \div N_{REG(i)}}{U_{PL} \div N_{PL}}$$

where:

- $LQ_{REG(i)}$ - bankruptcy process concentration coefficient in the i-region; $i \in \{1, \dots, 16\}$
- $U_{REG(i)}$ - number of bankruptcies in the i-region (Polish province)
- $N_{REG(i)}$ - number of business entities registered in the National Official Register of Business Entities in the i-region (Polish province)
- U_{PL} - total number of bankruptcies in Poland (in a given year)
- N_{PL} - total number of business entities registered in the National Official Register of Business Entities in Poland

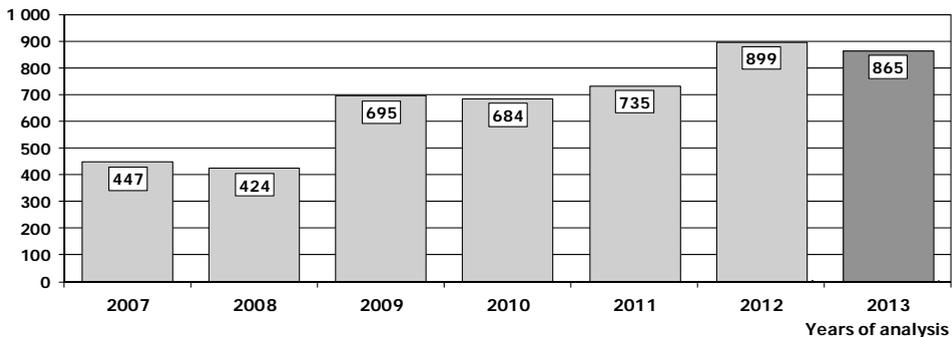
The LQ coefficient is broadly applied in economic geography and the economic analysis of regions to determine an intensity of the analysed phenomenon in a given region with respect to the entire economy. It is assumed that if the LQ exceeds the value of 1j. (some scientists claim that it is greater than 1.2j), it means the extraordinary concentration of the analysed phenomenon in a given region. In this article, a reference point of the intensity of bankruptcy processes in individual provinces of Poland is the number of business entities registered in the National Official Register of Business Entities as of the end of the third quarter of 2013.

2. THE DYNAMIC ANALYSIS OF BANKRUPTCY OF COMPANIES IN POLAND UNTIL 2013

Although it may be concluded from statistics about bankruptcies of enterprises shown on graph 1 that the number of bankruptcies in Poland changes (increase), but it does not finally happen. Since the data on bankruptcies of enterprises collected as of 20 January 2014 show that the number of these processes declined by 4% compared to 2012. However, the analysis of semi-annual data (and statistics shown in graph 1) shows that the final number of bankruptcies in 2013 should subtly grow. As of the end of June 2013 there were 463 bankruptcies, whereas the first half of 2012 witnessed 424 bankruptcies. Whereas the 2013 closing balance shows 865 bankruptcies compared to 899 bankruptcies declared last year. These semi-annual data prove that the final number of bankruptcies in 2013 increases so much that *de facto* it exceeds the balance of previous years, again. The ongoing monitoring of bankruptcies of enterprises conducted each day (and also during the development of statistical data included in this study, *id est* following 20 January 2014) shows that Polish commercial courts much quicker inform about bankruptcy rulings. Therefore, it may be assumed that the 2013 bankruptcy balance certainly grows (due to delays between commercial courts' rulings and the publication of this information in the Court and Commercial Journal, but this growth will not be so high as two or three years ago. Graph 1 shows bankruptcy statistics in Poland in the years 2007-2013.

In 2013, 21 per each 100,000 business entities registered in the National Official Register of Business Entities in Poland declared bankruptcy. In the same group of business entities as many as 4,970 enterprises were liquidated (deleted from register of the Central Statistical Office). Hence, it is noteworthy that liquidation processes were 233 times more frequent than bankruptcy processes. This disproportion, however, is not surprising as the “demographic movement” of enterprises (deriving from a broader term: “business demography”), particularly their liquidations and new incorporations, is a normal phenomenon in business statistics. Table 1 shows the structure of enterprises registered in the National Official Register of Business Entities at the end of the 3rd quarter of 2013 and used to show the statistics of bankruptcies in 2013.

Years of analysis	2007	2008	2009	2010	2011	2012	2013
Bankruptcy proceedings of companies	447	424	695	684	735	899	865
Rate of change	-	-5,15%	63,92%	-1,58%	7,46%	22,31%	-3,78%



The number of bankruptcies in 2013 was determined on the basis of court rulings made from 1 January 2013 to 20 January 2014.

Graph 1. Bankruptcies in Poland in the years 2007-2013

Source: Own work.

Table 1

The global statistics of business entities registered in the National Official Register of Business Entities at the end of the 3rd quarter of 2013 divided into private and public sectors in comparison with bankruptcies in 2013

TOTAL POLAND State economy entities and cross-section statistics of bankruptcies	No of entities as of:
Category of business entities (data collected at the end of the 3rd of 2013):	
Total private sector – registered in the National Official Register of Business Entities	3 933 209
Private sector – newly registered in the National Official Register of Business Entities	280 183
Private sector – deleted from the National Official Register of Business Entities	199 432
Total public sector – registered in the National Official Register of Business Entities	122 675
Public sector – newly registered in the National Official Register of Business Entities	1 858
Public sector – deleted from the National Official Register of Business Entities	2 128
Total business entities registered in the National Official Register of Business Entities	4 055 884
Total new entities registered in the National Official Register of Business Entities	282 041
Total business entities deleted from the National Official Register of Business Entities	201 560
TOTAL BUSINESS ENTITIES DECLARED BANKRUPT IN 2013	865

The number of bankruptcies in 2013 was determined on the basis of court rulings made from 1 January 2013 to 20 January 2014; as of the day of the studies there are no Central Statistical Office's statistical data on the number of entities registered in the National Official Register of Business Entities at the end of 2013, hence the statistical analysis includes the data for the 3rd quarter of 2013.

Source: own work.

The group of dominating organizational and legal forms in which the enterprises that declared bankruptcy in 2013 operated includes the same kinds of enterprises as in the previous years. The 2013 bankruptcy structure greatly resembles the distribution of these entities observed in 2012. The largest group (58.50% of total bankruptcies) of enterprises subject to bankruptcy in 2013 was limited liability companies. This quite common and relatively low-cost form of business (min. PLN 5,000 share capital) was always considered in business as safer and more reliable than very numerous (dominant) natural persons conducting non-agricultural business activities. In the meantime, these companies, after reducing the required share capital, largely lost this conventional reliability status. On the one hand, they are already mature (on a capital basis) forms of marketable operation, but on the other hand this low level of the required capital ceased to be any guarantee of their financial reliability long time ago.

Almost every fifth company that declared bankruptcy in 2013 was run by natural persons who conducted non-agricultural business activities (23.58%). Their share in total bankruptcies in this period is almost the same as in the previous year. Traditionally, the third place in the ranking of bankruptcy intensity processes is occupied by joint-stock companies, the bankruptcies of which equalled to 9.36% in 2013 of total court cases in this respect in 2013. Table 2 shows the detailed analysis of organizational and legal forms in which the enterprises subject to bankruptcy in 2013 were registered and conducted their businesses. Whereas, Table 3 shows the detailed distribution of bankruptcies declared in 2013 on the basis of the criterion of ownership form of these entities.

Table 2

Structure of bankruptcies in Poland in the years 2012-2013 divided into organizational and legal forms

Total bankruptcies of companies in Poland according to organizational and legal form		2012		2013	
1	Entrepreneurial activities and civil-law partnerships	211	23,47%	204	23,58%
2	General partnerships	48	5,34%	35	4,05%
3	Limited partnerships and joint-stock partnerships	14	1,56%	19	2,20%
4	Limited liability companies	520	57,84%	506	58,50%
5	Joint-stock companies	84	9,34%	81	9,36%
6	Cooperatives	20	2,22%	15	1,73%
7	Associations, funds, sports clubs	2	0,22%	4	0,46%
8	State-owned companies	0	0,00%	1	0,12%
TOTAL		899	100,00%	865	100,00%

Source: Own work.

By analysing data shown in Table 3 it is noteworthy that similarly to the previous years, most bankruptcies in 2013 were declared by enterprises owned by natural persons (47.28%) or were other private domestic ownership (12.95%). This form of ownership amounting to over 60% of total bankruptcies in 2013 is dominant and characteristic for the analysed phenomenon in the last four years of the analysis in this regard. Moreover, it may also be noticed that unlike the previously discussed bankruptcy structure analysed with respect to organizational and legal forms in which bankrupt companies operated, the ownership structure of the discussed bankruptcies is similar to the structure that occurs inside the number of national economy enterprises registered in the Central Statistical Office and the National Official Register of Business Entities.

Moreover, it is worth emphasizing that the statistics discussed in this article are a very general outlook on bankruptcy processes and it is necessary to bear in mind that the significance of bankruptcy of a joint-stock company cannot be compared to the insolvency of a civil-law partnership or frequently even to a limited liability company. As in this case the strength and intensity of relations, as well as relationships with business partners, number of employees and potential creditors is incomparably higher. This idea must be borne in mind all the time when analysing subsequent statistical data on the scale and intensification of individual groups of enterprises subject to bankruptcy proceedings in Poland.

Table 3

Ownership structure of bankruptcies in Poland in 2013

Total bankruptcies in Poland in 2013 according to the ownership form (classification approved by the Central Statistical Office)		No of business entities	Share in total business entities declared
Code (CSO)	Expansion (description) of ownership form:	[business entities]	[%]
111	State Treasury ownership	7	0,81%
112	Ownership of state legal persons	2	0,23%
113	Ownership of local self-governments	1	0,12%
131	Sector-mixed ownership with a predominance of public sector ownership, including predominance of State Treasury ownership	2	0,23%
132	Sector-mixed ownership with a predominance of public sector ownership, including predominance of ownership of state legal persons	2	0,23%
133	Sector-mixed ownership with a predominance of public sector ownership, including the predominance of ownership of local self-governments	1	0,12%
214	Domestic natural person ownership	409	47,28%
215	Other private domestic ownership	112	12,95%
216	Foreign ownership	40	4,62%
224	Mixed ownership in the private sector with a predominance of domestic natural person ownership	36	4,16%
225	Mixed ownership in the private sector with a predominance of other private domestic ownership	25	2,89%
226	Mixed ownership in the private sector with a predominance of foreign ownership	10	1,16%
227	Mixed ownership in the private sector with no predominance of any type of private ownership	7	0,81%
234	Sector-mixed ownership with a predominance of private sector ownership, including the predominance of domestic natural person ownership	2	0,23%
235	Sector-mixed ownership with a predominance of private sector ownership, including the predominance of other private domestic ownership	4	0,46%
236	Sector-mixed ownership with a predominance of private sector ownership, including the predominance of foreign ownership	1	0,12%
-	Activity closed or no data	204	23,58%
TOTAL BANKRUPTCIES		865	100,00%

Source: Own work.

This general image of the bankruptcy structure of enterprises in 2013 should be deepened through the relativisation of the bankruptcy scale in subsequent provinces of Poland, comparing the number of enterprises subject to bankruptcy to the number of enterprises operating in a given region.

3. THE REGIONAL CONCENTRATION OF BANKRUPTCY PROCESSES IN THE ADMINISTRATIVE DIVISION OF POLAND

Similarly to the previous years, the largest absolute number of bankruptcies was noted in the Mazowieckie Province. However, such absolute presentation of a scale of bankruptcies of enterprises is not reliable as conditions of operation of business entities, and hence the scale (number) of such enterprises is diversified in other Polish provinces. The number of bankruptcies declared in 2013 compared to this phenomenon in 2012 and in the administrative division of Poland is shown in Table 4.

Table 4

Analysis of bankruptcies of enterprises in the administrative division of Poland in the years 2012-2013

Item	Region of Poland (province) <i>sorted out acc. to number of bankruptcies in 2013</i>	Bankruptcies of enterprises in 2012		Bankruptcies of enterprises in 2013	
		[entities]	[%]	[entities]	[%]
1	MAZOWIECKIE PROVINCE	180	20,02%	158	18,27%
2	DOLNOŚLĄSKIE PROVINCE	114	12,68%	139	16,07%
3	ŚLĄSKIE PROVINCE	108	12,01%	97	11,21%
4	MAŁOPOLSKIE PROVINCE	51	5,67%	80	9,25%
5	WIELKOPOLSKIE PROVINCE	107	11,90%	65	7,51%
6	ZACHODNIOPOMORSKIE PROVINCE	64	7,12%	60	6,94%
7	KUJAWSKO-POMORSKIE PROVINCE	39	4,34%	46	5,32%
8	ŁÓDZKIE PROVINCE	30	3,34%	38	4,39%
9	WARMIŃSKO-MAZURSKIE PROVINCE	29	3,23%	32	3,70%
10	POMORSKIE PROVINCE	51	5,67%	29	3,35%
11	PODKARPACKIE PROVINCE	26	2,89%	29	3,35%
12	LUBUSKIE PROVINCE	18	2,00%	22	2,54%
13	ŚWIĘTOKRZYSKIE PROVINCE	15	1,67%	21	2,43%
14	LUBELSKIE PROVINCE	36	4,00%	19	2,20%
15	PODLASKIE PROVINCE	17	1,89%	17	1,97%
16	OPOLSKIE PROVINCE	14	1,56%	13	1,50%
TOTAL		899	100,00%	865	100,00%

Source: Own calculations.

The overlapping of data on bankruptcies of enterprises and the statistics about the number of enterprises registered in the National Official Register of Business Entities makes it possible to count the LQ coefficient. This measure was applied to determine the intensity of bankruptcy processes in the administrative division of Poland. Table 5 shows relevantly ordered Polish provinces beginning from those regions where the relation of bankruptcies of enterprises to national economy entities is the highest. The highest level of the LQ coefficient calculated in the last column of Tables 5 and 6 shows the highest concentration of bankruptcies of enterprises.

Table 5

The concentration (LQ2013) of bankruptcies of enterprises in 2013 in the administrative division of Poland - the regional intensity measurement of bankruptcy processes of enterprises

I-XII.2013 r. Bankruptcies in Poland according to provinces		Number of entities declared bankrupt	Share in total entities declared bankrupt	Number of private entities 3rd quarter of 2013 [C]	Number of public entities 3rd quarter of 2013 [D]	Total entities in 3rd quarter of 2013 (REGON) [E]=[C+D]	Relation of bankruptcy to total entities [F]=[A/E]	Location Quotient LQ = RBU [G]=[F]/[A/E]
		[A]	[B]	[C]	[D]	[E]=[C+D]	[F]=[A/E]	[G]=[F]/[A/E]
1	DOLNOŚLĄSKIE PROVINCE	139	16,07%	330 391	15 428	345 819	0,0402%	1,88
2	ZACHODNIOPOMORSKIE PROVINCE	60	6,94%	212 322	7 143	219 465	0,0273%	1,28
3	WARMIŃSKO-MAZURSKIE PROVINCE	32	3,70%	116 607	5 599	122 206	0,0262%	1,23
4	KUJAWSKO-POMORSKIE PROVINCE	46	5,32%	184 537	5 898	190 435	0,0242%	1,13
5	MAŁOPOLSKIE PROVINCE	80	9,25%	342 457	7 979	350 436	0,0228%	1,07
6	MAZOWIECKIE PROVINCE	158	18,27%	705 917	12 941	718 858	0,0220%	1,03
7	ŚLĄSKIE PROVINCE	97	11,21%	443 437	16 161	459 598	0,0211%	0,99
8	LUBUSKIE PROVINCE	22	2,54%	104 800	4 725	109 525	0,0201%	0,94
9	ŚWIĘTOKRZYSKIE PROVINCE	21	2,43%	106 618	3 285	109 903	0,0191%	0,90
10	PODKARPACKIE PROVINCE	29	3,35%	152 584	6 027	158 611	0,0183%	0,86
11	PODLASKIE PROVINCE	17	1,97%	93 303	3 168	96 471	0,0176%	0,83
12	WIELKOPOLSKIE PROVINCE	65	7,51%	386 601	9 744	396 345	0,0164%	0,77
13	ŁÓDZKIE PROVINCE	38	4,39%	231 277	6 618	237 895	0,0160%	0,75
14	OPOLSKIE PROVINCE	13	1,50%	95 991	4 227	100 218	0,0130%	0,61
15	LUBELSKIE PROVINCE	19	2,20%	163 514	5 838	169 352	0,0112%	0,53
16	POMORSKIE PROVINCE	29	3,35%	262 853	7 894	270 747	0,0107%	0,50
TOTAL		865	100%	3 933 209	122 675	4 055 884	0,0213%	-

The LQ coefficient was calculated on the basis of the condition of national economy enterprises at the end of the 3rd quarter of 2013 compared to bankruptcies declared in the entire 2013. As of the day of the study those were the most updated data of the Central Statistical Office that formed the basis for the number of bankruptcy processes in individual provinces of Poland.

Source: Own calculations.

Despite the fact that as for absolute terms the most bankruptcies declared in 2013 were recorded in the Mazowieckie Province (158 enterprises; $LQ_{2013}=1.03$ entities), the reference of bankruptcies to the number of enterprises operating in given provinces caused that the Dolnośląskie Province (139 bankruptcies; $LQ_{2013}=1.88$ entities), the Zachodniopomorskie Province (60 bankruptcies, $LQ_{2013}=1.28$ entities) and the Warmińsko-Mazurskie Province (32 bankruptcies, $LQ_{2013}=1.23$ entities) became the regions with definitely the highest intensity of bankruptcy processes in Poland. By using this evaluation criterion of the intensity of bankruptcies in the economy in the individual regions of Poland, in 2013 those provinces had the above-average level of bankruptcy compared to the rest regions of Poland. In 2013 the lowest intensity of bankruptcy processes were observed in the Pomerania Province (29 bankruptcies, $LQ_{2013}=0.50$ entities).

4. THE INDUSTRIAL ANALYSIS OF BANKRUPTCY OF ENTERPRISES IN POLAND IN 2013

The industrial analysis of bankruptcy of enterprises in 2013 was conducted on the basis of basic codes of the 2007 Polish Classification of Activities¹ provided in registration documents (or their subsequent updates) by entrepreneurs declared to be bankrupt. However, this analysis includes 76.42% (661 entities) of total bankruptcies registered in the analysed period. Since it refers to all the other organizational and legal forms in which the enterprises subject to bankruptcy operated, excluding natural persons conducting business activities and civil-law partnerships.

Similarly to 2012, almost every third bankruptcy declared in 2013 referred to construction enterprises. It equalled to 29.79% of total bankruptcies declared in that period. Payment backlogs resulting from the excessive use of deferred payments and still ineffective public tenders for infrastructural works in which a price is a basic criterion of selecting a contractor, constitute - according to the author - two fundamental determinants of such high share of general construction enterprises in the structure of bankruptcies in Poland. Bearing in mind the fact that this situation is almost identical as in the previous years, it is important to emphasize that the construction industry became exceptionally unstable and little reliable for entities operating in this field of industry. In 2013 the main profiles of bankruptcies of enterprises referred to various types of construction works conducted by these enterprises such as erection of residential and non-residential buildings, construction of roads, highways, industrial pipelines, distribution networks, power grids, water and sewage, heat, gas and air-conditioning systems, civil engineering facilities, water facilities, and specialist and finishing works.

Bankruptcies in the construction industry always affect the industrial structure of bankruptcies of production enterprises. Production companies (various types) equalled to 24.06% of total enterprises declared bankrupt in 2013. It is hard to precisely differentiate the construction production in a strict sense (for the purposes of the construction industry), but it may be observed that among production enterprises that declared bankruptcy there were also enterprises that produced for the construction industry plastic goods, construction concrete goods, pre-fabricated concrete goods, metal structures and their parts, as well as conducted the mechanical treatment of metal structures and carpentry products for the construction industry.

In general, the remaining bankruptcies of production enterprises can be classified as follows:

- production and food production (16.33% of bankruptcies of production enterprises), among others, meat products, preservation of fish and shellfish, processing and preservation of fruit and vegetables, production of bakery products, beer, non-alcoholic beverages and mineral water;
- production of wear and textile products (11.56% of bankruptcies of production companies), among others, production of textile products, work wear, wear, underwear, stocking products, footwear and leather tanning;
- production and processing of wood (10.20% of bankruptcies of production enterprises), among others, production of sawmill, wooden, cork, straw products used to weave, and production of corrugate paper and cardboard;
- production of office and shop furniture (10.20% of bankruptcies of production enterprises);
- production of electronic and electrical equipment (5.44% of bankruptcies of production enterprises), among others, production of computers and peripherals, production of communication equipment, lightning equipment, and electrical household appliances.

¹ The Polish Classification of Activities was implemented by Regulation of the Council of Ministers dated 24 December 2007 (Journal of Laws of 2007 No 251, item 1885 of 31 December 2007).

In 2013, the last two main groups of bankruptcies were trade enterprises. The total number of these bankruptcies included 24.71% of total bankruptcies covered by this study. This group included both bankruptcies of wholesalers (18.82% of total bankruptcies in 2013 and 76.16% of bankruptcies of trade companies), as well as bankruptcies of retail sales points (5.89% of total bankruptcies declared in 2013, and 23.84% of bankruptcies of trade companies). On the other hand, retailers who declared bankruptcy mainly sold food, beverages, tobacco products, alcohol products, furniture and lighting equipment, sports equipment, wear and footwear, leather products (dominant percentage of these bankruptcies), as well as pharmaceutical products. The remaining bankruptcies of enterprises registered in 2013 were industrially diversified.

SUMMARY

2013 witnessed 865 bankruptcies of enterprises in Poland (as per data collected as of 20 January 2014), and this number, as emphasized in this article, is comparable to the previous year's closing balance. Thanks to the slowdown of the positive rate of changes in the number of bankruptcies declared by commercial courts, it may be concluded that this phenomenon has somehow stabilized. Similarly to the conducted structural studies on the number of enterprises declared bankrupt in that period. As the structure of these bankruptcies are still dominated by proceedings conducted to liquidate assets of insolvent debtors (80.46% of total declared bankruptcies). Only in 19.54% of all the cases Polish courts ruled out to conduct proceedings that considered a possible arrangement between a debtor and creditors.

The issue of such low percentage of arrangement bankruptcies has been raised by economists and lawyers who notice that this type of bankruptcy, despite that fact in the beginning it seems to be less effective for creditors, *de facto* may very frequently appear to a better solution. Since this undoubtedly difficult compromise means that the creditor is forced to make concessions and agree on an amount that is usually partially reimbursed by the debtor and frequently this debt is paid within a long period. However, some studies show that this process is *per saldo* more financially effective than the multiannual liquidating process, in which the capital resulting from selling the estate in bankruptcy considerably below its market value does not satisfy most of creditors. Depreciation within the period of nominal values of initially declared debts and partial repayment of their values as a result of the statutory actions taken by a receiver appears to be a process that firstly is delayed in time and secondly it does not usually give any financial satisfaction to creditors who are not fully repaid. However, thanks to knowledge of this fact and without analysing the uncontested lack of justice, creditors would certainly be able to accept this hard compromise more frequently, opening themselves to mediations with insolvent debtors than commencing the liquidating proceedings which are the last chance to seek their rights. Since it is always better in such situations to take some preventive measures than treat their consequences. Preventive measures do not always need to be expensive. It is rather a result of good practices and the proper management involving properly conducted business relations between business partners such as e.g. advance payments, settlement of long and value large projects in tranches. Moreover, the spiral of bankruptcies (insolvency of enterprises adversely affects other entities) is frequently a consequence of a lack of relevantly diversified markets and realization of projects that exceed organizational and financial capabilities of their contractors.

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