SMEs OF THE CONSTRUCTION INDUSTRY IN ECONOMIC SLOWDOWN

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Summary: The purpose of this paper is to characterize the small and medium-sized enterprise of the construction industry, operating in the economic slowdown. Nowadays SME and construction sector play a significant role in the national economy: make important contributions to **job creation** and GDP growth. The economic slowdown, significantly affects the change of conditions in which it operates: rise of commodity prices, **difficulties in obtaining credit**, **delay of payments for construction/assembly works**, insufficient demand, strong price competition on market and fierce competition for contracts. Many companies are trying to adapt to changes in the environment, but not all of them are successful.

Keywords: small and medium enterprises (SMEs), construction industry, economic slowdown.

1. The Polish SMEs and construction sector

In the literature, there is no single, universally valid definition of SMEs. They are defined on the basis of two sets of criteria- quantitative and qualitative. Quantitative criteria are those which include measurable factors particular to the company, such as number of employees, turnover, net production, revenue, profit, etc. They may be various in different countries. In most cases, the leading criterion is the number of people employed in the company. The definition of SMEs based on qualitative parameters based on the assumption that there is a certain set of attributes, relevant only to them. This list of attributes includes such features, areas, modes of action and behavior that do not occur in large companies, or they are implemented in those enterprises in a different way [1].

Structural determinant of the economies of the European Union is the high rank of the SME sector entities [1]. Also Central Statistical Office (GUS) data confirm, that there is a very high share of the total number of the enterprises in Poland- it is to more than 99% of all companies. Only 0.08% of all companies are large enterprises [3].

Considering the territorial distribution of companies, there are significant differences between the Polish administrative areas (tab. 1). The largest number of enterprises is located in voivodsips such as Mazowieckie (669 thousand.), Śląskie (430 thousand.) and Wielkopolskie (369 thousand.). Also, when looking at the number of SMEs - adequate trend can be seen. The largest group of the SME sector is in such voivodships as Mazowieckie, Śląskie and Wielkopolskie [3].

However, when taking into account the share of SMEs in total number of enterprises, there can be seen, that in Silesia voivodship the share of enterprises employing up to 249 people is 99.91%, while for Mazowieckie voivodship it is 99.89%. On the other hand-in such voivodships as Podlaskie (89 thousand.) or Opolskie (93 thousand.) number of companies does not exceed even one hundred thousand [3].

Tab. 4. Entities of the national economy by the expected number of employed and voivodships (private sector)

	Expected number of employed					
Voivodships	**Total**	**SME Sector**				**250 and more**
		0-9	**10-49**	**50-249**	**Total**	
Dolnośląskie	315 483.00	306 196.00	7 795,00	1 234.00	315 225.00	258,00
Kujawsko-pomorskie	179 500.00	173 051.00	5 377,00	935,00	179 363.00	137,00
Lubelskie	157 217.00	152 911.00	3 656,00	578,00	157 145.00	72,00
Lubuskie	101 051.00	97 531,00	2 984,00	469,00	100 984.00	67,00
Łódzkie	223 442.00	214 294.00	7 817,00	1 147.00	223 258.00	184,00
Małopolskie	328 269.00	316 439.00	10 054.00	1 543.00	328 036.00	233,00
Mazowieckie	669 871.00	645 113.00	20 704.00	3 337.00	669 154.00	717,00
Opolskie	93 226,00	90 382,00	2 425,00	361,00	93 168,00	58,00
Podkarpackie	146 503.00	141 956.00	3 765,00	655,00	146 376.00	127,00
Podlaskie	89 761,00	87 298,00	2 063,00	347,00	89 708,00	53,00
Pomorskie	253 214.00	244 304.00	7 622,00	1 143.00	253 069.00	145,00
Śląskie	430 023.00	411 510.00	15 852.00	2 264.00	429 626.00	397,00
Świętokrzyskie	103 099.00	99 788,00	2 790,00	442,00	103 020.00	79,00
Warmińsko-mazurskie	112 589.00	108 601.00	3 376,00	544,00	112 521.00	68,00
Wielkopolskie	369 651.00	354 491.00	12 744.00	2 096.00	369 331.00	320,00
Zachodniopomorskie	207 634.00	201 902.00	4 993,00	661,00	207 556.00	78,00
	3 780 533,00	**3 645 767,00**	**114 017,00**	**17 756,00**	**3 777 540,00**	**2 993,00**

Analysis of enterprises by the estimated number of employers up to 249 people (fig. 1) by the sections of the Polish Classification of Activities (PKD) shows a significant share of companies engaged in: trade, repair of motor vehicles (27.98%), construction (12.36%), manufacturing (9.40%), professional, scientific and technical activities (9.03%) [3].

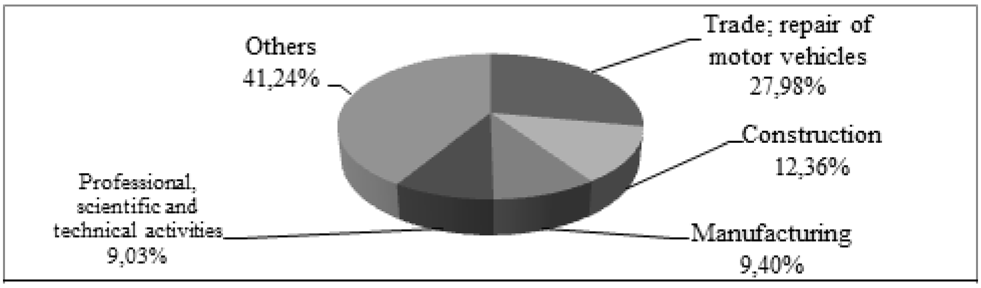

Fig. 1. Entities of the national economy by the sections of the Polish Classification of Activities (private sector)

The conviction of the important role of the SME sector for economy is common. It has an impact on the economic, social and political processes of modern market economies around the world. Papers emphasizes the particular importance of the sector in the creation of jobs and the GDP [4]. The sector is the largest employer, which strongly determines the situation on the labor market. According to Eurostat data for 2008, the share of employed in the SME sector in total employment in Poland is 68.9% [5]. Analyzing employment by industry (fig. 2), the largest share of employment have: manufacturing (37,81%), trade (20,73%), transportation and storage (8,93%), construction (8,91). The construction sector employed on 30 June 2012, 517 200 people (excluding businesses employing up to 9 persons), while the average employment in the first half of 2012 amounted to 482 400, which represents almost 9% of the total employment. [6]. During the prosperity, the construction sector reduces unemployment. At a time when there is a downturn-trend reverses-employment is rapidly decreasing. [7].

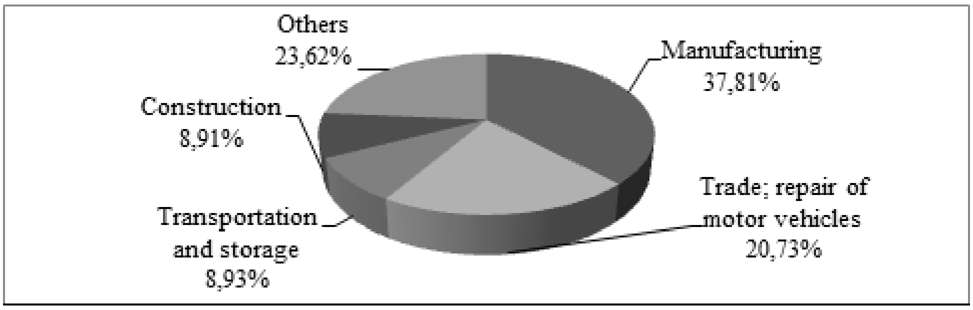

Fig. 2. Average employment by ownership sectors (in 1st half of 2012)

The SME sector generates almost half of Polish GDP (48.4%), while the smallest businesses nearly one-third (fig. 3). The share of medium-sized entities is 10.10%, and small - 7.90% [5]. Consideration of the structure of gross value added by activities indicates a growing share of construction. In 2010, in the kind-of-activity structure of voivodships' economies compared to 2005 an increase of construction share in generating gross value added was observed in all voivodships. Also a decrease of shares of entities acting was observed in financial and insurance activities, real estate activities, as well as in agriculture, forestry and fishing nearly in all voivodships. In the voivodships' breakdown in 2010, the share of units engaged in construction in the generation of gross value added ranged from

6,8% in Mazowieckie voivodship to 10,4% in Małopolskie voivodship (in 2005 from 4,4% in Mazowieckie voivodship to 7,4% in Małopolskie and Świętokrzyskie voivodships).

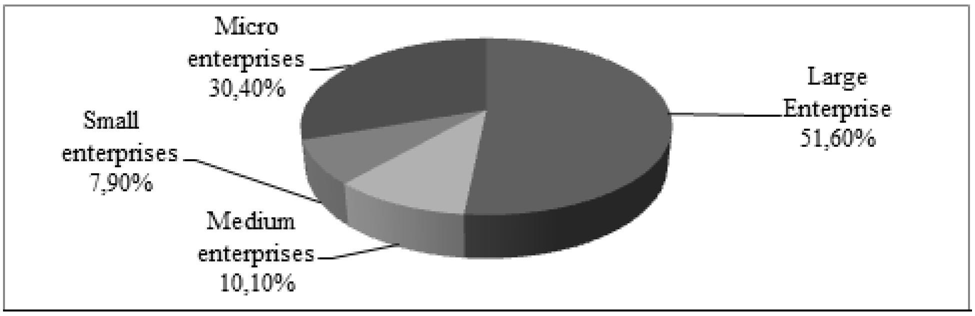

Fig.3. Contribution of enterprise to GDP

In 2010, entities engaged in construction activities generated 8,0% of the national gross value added – what was by 0,2 pp more than in 2009 and by 2,2 pp more in comparison with 2005. However, analyzing the results for individual voivodships may notice some different. In 2010 (compared to 2009) in 12 voivodships an increase of construction share was recorded from 0,1 pp in voivodships: Łódzkie, Opolskie and Śląskie to 0,6 pp in Podkarpackie. A decrease of share of construction entities was observed only in Dolnośląskie voivodship by 0,1 pp, whereas in the following voivodships: Kujawsko-pomorskie, Lubelskie and Warmińsko-mazurskie their share did not change [8].

2. Construction industry in economic downturn

The economic crisis, next the economic downturn significantly changed conditions for enterprises. The changes relate to the external and also internal environment. Research from the end of 2009 showed that most traders were of the opinion that the situation of the company due to crisis worsened somehow, and much smaller group concluded that the economic crisis has not affected the health of their business. Almost half of the companies assessed their condition as good. What is more- construction companies also assessed it as in the same condition [9]. Reports and statistics from subsequent years show a drastic change in the situation particularly in relation to construction [10, 11, 12, 14]. Construction industry (including transport and manufacturing was even considered by the European Commission as particularly vulnerable to the negative impact of the economic crisis. [9]. Construction is recognized as one of the main economic sectors of activity in Europe. It has been seriously affected by the economic downturn, although the effects of the crisis and the timing of their disclosure differ between Member States of the European Union [14].

In Poland, the indicator of general business tendency climate in construction, calculated by the Central Statistical Office (GUS), based on the subjective opinions of directors of companies, is indicating significant changes during the economic downturn in relation to the years considered as pre-crisised (fig. 4). Compared with the years 2006-2008 the index for subsequent years is much lower. The indicator reflects opinions on the current and expected general economic of enterprise. Considering each of the years it could be noticed that at the turn of the year economic climate is estimated as a much worse than in the mid-year. Despite of seasonal fluctuations there is a significant decrease of the value of the indicator in 2009 and 2012 [11].

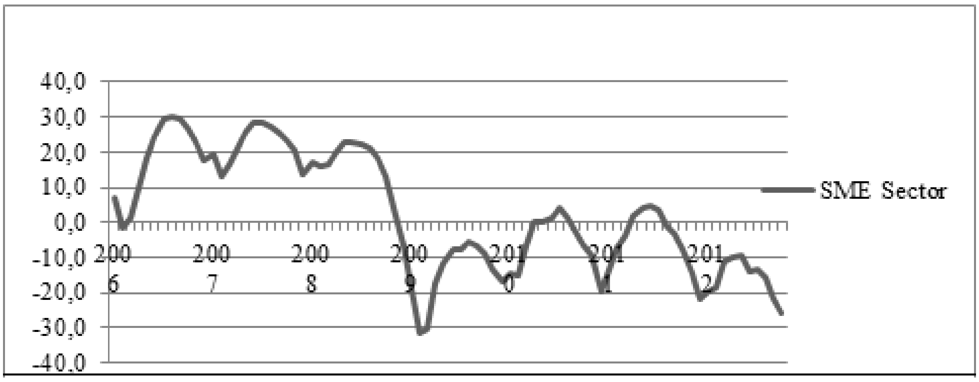

Fig. 4. Indicator of general business tendency climate in construction (January 2006 - October 2012)

The annual analysis of macroeconomic indicators, the Central Statistical Office (GUS) - for construction industry- accepted sales indicator of construction and assembly production [fig. 5]. According to the report- since 2006, the industry recorded a decline in sales. In 2011, there was a rapid increase in sales compared to 2008 (pre-crisis) [12]. This high score is related to, among others, the organization of the UEFA European Football Championship EURO 2012. The increase of activity in the construction industry was due to the need to expand and modernize the transport infrastructure (roads, railways, airports) and sports (stadiums and accommodation centers) [15].

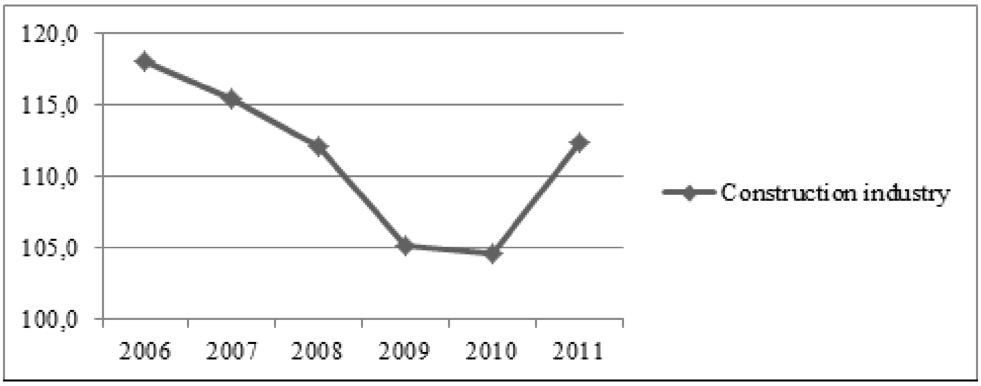

Fig. 5. Sales indicator of construction and assembly production

Construction activity need to be seen through the perspective of an open system, combined with the environment in which from one side obtains: energy, information, materials, from other side provide services [14]. So analyzing the economic situation for the construction, the attention should be paid to the business relationship with the other sectors of the economy: the production of materials, equipment, machinery, transportation, energy. In case the construction services records prosperity, it promotes the development of other sectors. In the case of recession, the counter-effect on the overall state of the economy is negative [16]. Attention need to be drawn to the link between construction and the steel industry, for which the slowdown in construction projects (housing is the recipient of the metal components), reducing infrastructure investment as a result of budget cuts could have very negative consequences [13].

The report concerning investments and strategies of SMEs in times of economic downturn shows, that the vast majority of firms in response to the crisis began primarily limited various charges, starting from those associated with the current activity and ending on investment [9]. This is confirmed by the Central Statistical Office (GUS) data, which show that in the years, since 2008, the projected expenditures for investments in the construction sector has been reduced (fig. 6). The lowest values were recorded in 2009. The following year, there was a revival, which recorded another decline in the next year. As with the overall rate of economic climate businesses, seasonality also characterizes the rate of change in the investment [10].

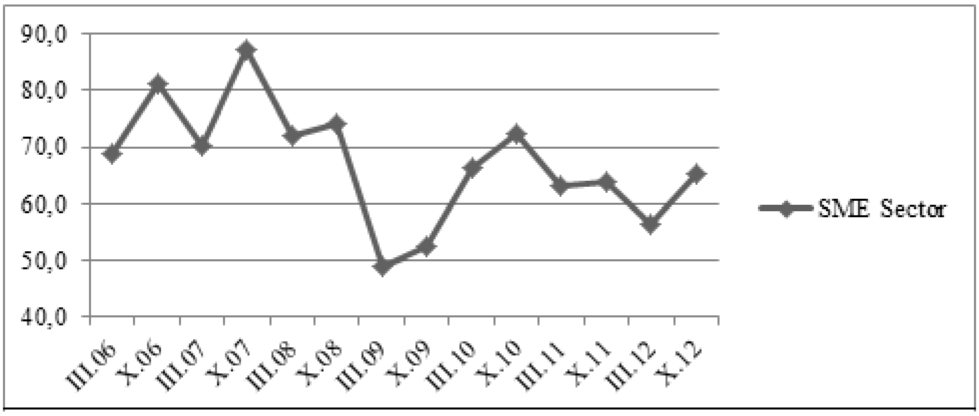

Fig.6. Percentage change in investments projected for the present year compared with investments in the last year in construction industry

The company's growth, and in particular investments, require adequate funding. Specifics of the operation of SMEs, not only in Poland, is associated with limited financial resources, difficult access to foreign capital and experts. As a result, SMEs function - especially in the early stages - on the basis of private owners savings [17].

Indicator of financing sources (fig. 7) shows a much greater use of SMEs own resources by construction companies, than other sources of financing, such as a leasing or domestic bank credit [10]. On the one hand, studies indicate relatively low confidence in the external financing of small and medium enterprises [9]. On the other hand, emphasized the fact of difficult access to bank credit. The Ministry of Economy published the study in the second half of 2010, which shows that among the companies that have applied for a loan, half of those has received it. Meanwhile, the research on behalf of the Lewiatan, that were before crisis, has shown that over 80% of SMEs were able to increase the debt. [4]. Impact of the crisis on businesses also reflects the rate of bankruptcy of enterprises.

Number of bankruptcy for the construction industry (fig. 8) is still increasing since 2008 [18, 19, 13]. In 2011, compared to the previous year, there was recorded an increase of bankruptcy by 46 percent.

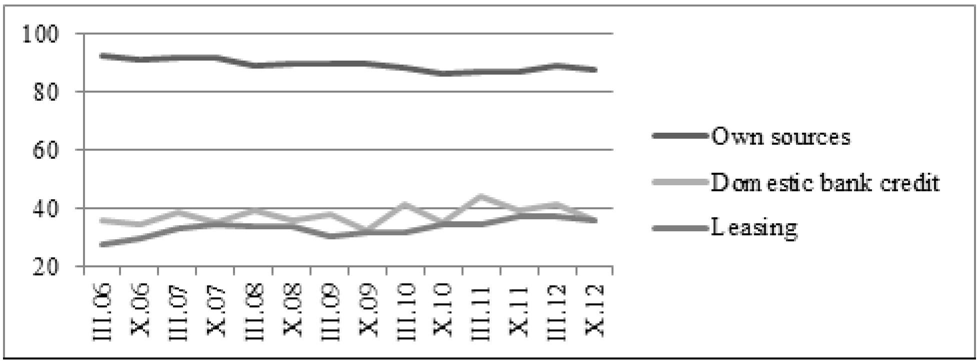

Fig. 7. Selected financial sources of investments in construction sector (SME)

The highest score among the other sectors confirms the worsening condition of the construction companies. What more analysis of companies turnover, for which were declared bankrupt in 2011, confirms that the insolvency concern in most cases small and medium-sized companies. For close to 60 percent companies of which Coface have financial data, as many as 42 percent are companies with turnover is up to 5 million PLN, and 52 percent are companies with have revenues of between 5 and 50 million PLN. Large enterprises with turnover at more than 100 million PLN represents only 3 percent of bankrupts. It is worth mentioning that most of the companies whose financial data Coface did not have, are also small businesses [13].

Strong price competition on market and fierce competition for contracts, tenders, where the main element is the choice by aspect of the best offer price cause that the company signs an agreement under the terms of guarantee which may not even cover the costs [13]. Furthermore, companies were badly hit by the effect of a sudden increase of raw materials and fuels prices [20]. Polish Association of Construction Employers (Polski Związek Pracodawców Budownictwa) not only draws attention to the increasing prices of materials, but pays particular attention to the lack of indexation of the contract price with mostly no agreement on the settlement of additional work, which puts contractors at a disadvantage [21].

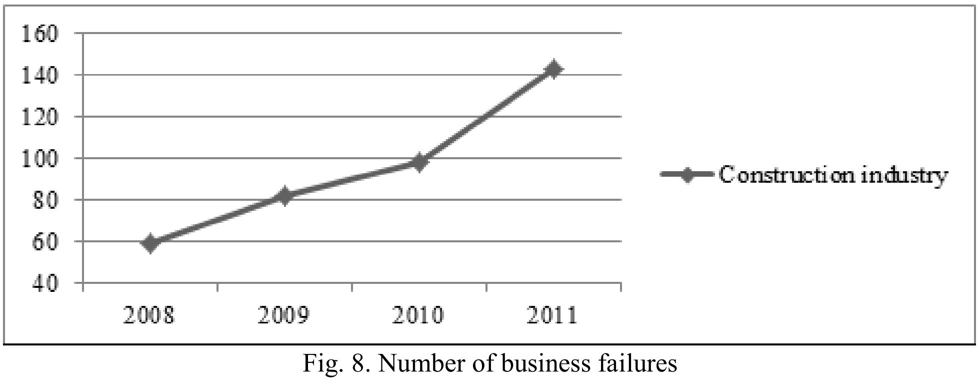

Fig. 8. Number of business failures

The negative effects particularly affected micro and small enterprises, which on the one hand have difficulty to win tenders, on the other hand is relatively easy to refuse them to pay on time. A typical attitude in times of economic downturn is a tendency to hold cash (especially to the difficult to get credit from financial institutions) by extending payment terms and causing payment delays, which is characteristic to the construction industry [19]. Due to the fact that the smaller subcontractors have the greatest problems, which had suspended payment by the general contractors, most bankruptcies are among the smaller entities, rather than large companies [13].

Another problem seems to be the claims process, which is not very effective even in large enterprises. Many construction companies are claiming amounts not earlier than at the end of the project. Often it comes to be ineffective. When the whole project is finished, construction companies lose arguments in negotiations with the investor. This leads to lawsuits, that the settlement can take place even after a few years [20].

Due to the fact, that bankruptcy statistics show changes of the economic situation with a delay and the construction industry is characterized by a relatively long cycle execution-perspectives for the next year are not optimistic [22]. Long implementation cycle means that in the initial stage of the economic downturn, the construction industry has been benefited from the fact that contracts are signed during the prosperity, by the relatively high rates. Due to the pressure on prices, labor costs and materials are gradually reduced, so the profit margins are satisfactory for some time. During the period of economic prosperity, described mechanism works in the opposite way, which as a result the negative effects of downturn extends in time [19].

3. Conclusions

The SME sector represents a large percentage of companies in the European countries, also in Poland. The importance of the SME sector in the economy is high which is confirmed by numerous studies. Economic slowdown changed conditions of the SME sector in Poland. The financial crisis hit Eastern Europe particularly severely at the end of 2008 and the beginning of 2009. Some countries have been affected comparatively strongly, while the impact on other countries in the region was not as strong but not negligible [23]. On the other hand, impact on various economic sectors was different. The indicators for the construction sector are not as optimistic as quoted results of the SME sector. Construction industry plays a significant role in the national economy: makes important contributions to **job creation** and GDP growth, is related with other sectors such as steel. Prosperity in construction has a positive effect on GDP, reducing unemployment and also affects other industries. In opposite situation it has a negative impact.

Indicator of general business tendency climate in construction, calculated by the Central Statistical Office (GUS), and number of business failures are not optimistic. The number of bankruptcies in the construction industry increases. In 2011, there was an increase of 46 percent compared to the previous year. Strong price competition on market and fierce competition for contracts, rise of commodity prices, **difficulties in obtaining credit**, **delay of payments** and insufficient demand are likely to hinder on construction industry activity. These factors particularly affected smaller companies. In this situations, it is difficult to compete for new contracts and negotiate the terms of payment, so bankruptcy rate increases for smaller businesses.

Sales indicator of construction and assembly production is more optimistic than others. However, experts suggest that it may be short-term uptrend. The construction industry has been developed due to investments related to the preparations for the European Football Championship and the many infrastructure projects were funded by the European Union in the 2011 and 2012 [13]. Investments connected with Euro 2012 are finished. Number of contracts for infrastructure projects will be significantly reduced. More questions arise about perspective for the construction industry [20].

Literature

1. Przetrwanie i rozwój małych i średnich przedsiębiorstw pod red. F. Bławat, Scientific Publishing Group, Gdańsk 2004, s. 23-43.
2. Gołaś Z.: Wydajność pracy małych i średnich przedsiębiorstw w Unii Europejskiej. „Ekonomika i Organizacja Przedsiębiorstwa" 2011, nr 1, s. 39-40.
3. GUS: Zmiany strukturalne grup podmiotów gospodarki narodowej w rejestrze regon, I półrocze 2012 r. http://www.stat.gov.pl/gus/5840_822_PLK_HTML.htm, stan na dzień 30.11.2012.
4. Steinerowska- Streb I.: Bariery rozwoju małych i średnich przedsiębiorstw w Polsce- zmiany spowodowane dekoniunkturą gospodarczą. „Przegląd Organizacji" 2012, nr 7, s. 18-21.
5. Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce, pod red.: A. Brussa, A. Tarnawa, PARP, Warszawa, 2011, s. 13.
6. GUS: Zatrudnienie i wynagrodzenia w gospodarce narodowej w I półroczu 2012 r. http://www.stat.gov.pl/cps/rde/xbcr/gus/PW_zatrudnienie_wynagrodzenia_I_kw_2012.pdf, stan na dzień 08.12.2012.
7. Hadi A.: Construction employment peaks before the recession and falls sharply throughout it. „Monthly Labor Review" 2011, nr 4, s. 24-27.
8. GUS: Produkt krajowy brutto - Rachunki regionalne w 2010 r. http://www.stat.gov.pl/gus/5840_3594_PLK_HTML.htm, stan na dzień 08.12.2012.
9. Raport PARP: Procesy inwestycyjne i strategie przedsiębiorstw w czasach kryzysu http://www.parp.gov.pl/files/74/81/380/8038.pdf, stan na dzień 08.12.2012.
10. GUS: Inwestycje w budownictwie. http://www.stat.gov.pl/gus/5840_2794_PLK_HTML.htm, stan na dzień 08.12.2012.
11. GUS: Koniunktura w przemyśle, budownictwie, handlu i usługach 2000-2012. http://www.stat.gov.pl/gus/5840_2794_PLK_HTML.htm, stan na dzień 30.11.2012.
12. GUS: Polska – wskaźniki makroekonomiczne. http://www.stat.gov.pl/gus/wskazniki_makroekon_PLK_HTML.htm, stan na dzień 30.11.2012.
13. Raport Coface: Upadłości firm w Polsce w 2011 roku, http://www.coface.pl/CofacePortal/ShowBinary/BEA%20Repository/PL/pl_PL/documents/Raport_upadlosci_caly_2011_COFACE, stan na dzień 27.10.2012.
14. Nistorescu T., Ploscaru C.: A strategic approach of the construction sector in Romania. „Annals of the University of Petrosani Economics"; 2010, nr 1, s. 193-204.
15. Borowski J., Boratyński J., Czerniak A., Dykas P., Plich M., Rapacki R., Tokarski T.: Długookresowy wpływ organizacji EURO 2012 na gospodarkę polską. „Ekonomista" 2011, nr 4, s. 493-517.
16. Buszko A.: Uwarunkowania ryzyka w budownictwie. „Ekonomika i Organizacja Przedsiębiorstwa" 2011, nr 1, s. 55.
17. Michna A., Męczyńska A., Kmieciak R., Sękowska R.: Badania literaturowe wybranych aspektów funkcjonowania małych i średnich przedsiębiorstw [w:] Rozwój i doskonalenie funkcjonowania przedsiębiorstw, pod red. L. Kiełtyka, Difin, Warszawa, 2010, s. 170-171.

18. Raport Coface: upadłości firm w Polsce w 2009 roku, http://www.windykacja.pl/files/upadlosci_caly_2009_coface.pdf, stan na dzień 27.10.2012.
19. Raport Coface: Upadłości firm w Polsce w 2010 roku, http://www.coface.pl/CofacePortal/ShowBinary/BEA%20Repository/PL/pl_PL/documents/Raport_Coface_upadlosci_caly_2010, stan na dzień 27.10.2012.
20. Raport Deloitte: Polskie firmy budowlane 2012. Badanie poziomu dojrzałości zarządzania projektami budowlanymi, http://www.deloitte.com/view/pl_PL/pl/branze/nieruchomosci/8bbf9f6bff828310VgnVCM3000001c56f00aRCRD.htm, stan na dzień 08.12.2012.
21. Informacja prasowa Polskiego Związku Pracodawców Budowlanych, 03 lipca 2012, http://pzpb.com.pl/pliki/Konferencja%20PZPB_3_lipca_2012_informacja%20prasowa.pdf, stan na dzień 14.12.2012.
22. Zelek A.: Rezystancja polskiej gospodarki na kryzys gospodarczy- fakty i mity. „Firma i Rynek", Zeszyt Naukowy Zachodniopomorskiej Szkoły Biznesu, Wydawnictwo Zachodniopomorskiej Szkoły Biznesu, Szczecin, 2011, s 81-84, z. 41.
23. Fidrmuc J., Hainz C.: Default rates in the loan market for SMEs: Evidence from Slovakia. „Economic Systems" 2010, nr 34, s. 133–134.

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