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Business demography in Poland and UE

In 2009 in Poland we could observe the effects of global financial crisis translating into an economic slump. Poland, however, was the only European country to achieve positive economic growth. GDP dynamics dropped to the level of 1,8%. Inflation rate fell to 3,5% in 2009, whereas the unemployment rate rose to 11,9%. At present, both experts and entrepreneurs announce a temporary recovery or even the end of economic crisis in Poland.¹ However, those profound market changes led to a substantial variation in the dynamics of enterprise population growth. The influence of changes in economy brought about by the crisis on an enterprise operations should be the core element of business management. Population dynamics as measured by demographic indicators specified by 'business demography' is a useful tool to define economic changes and their effects on the enterprise market. The influence of economic conditions on small enterprises entering and exiting the market can be considered in terms of macro and microeconomic factors. Data interpretation shall allow for the complexity of issue and the effects of multiple factors acting simultaneously. Some conclusions may be drawn with regard to a relationship between factors determining market entries, 'birth' rates and economic situation. There was a negative relationship (correlation coefficient -0,44) between the 'birth' rate and GDP as a measure of economic growth² for 19 European Union countries. A positive correlation, though not so strong, could be found between the unemployment and 'birth' rate, which stems from the fact that in the case of high unemployment jobless people are strongly motivated to find employment by setting up own business. In such conditions so-called 'push' factors come to play. The Eurostat report dating back to 2004 refuted the hypothesis that the high unemployment rate is likely to stimulate people to set up their own business. Conversely, high unemployment was the evidence of weak economy. The report confirmed that there is a relationship between the number of newly emerged enterprises and GDP. High economic

¹ *Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce w latach 2008-2009*, PARP, Warszawa 2010.

² *Business demography in Europe*. Enterprise publications. Observatory of European SMEs 2002/No 5. European Commission 2002.

growth is conducive to starting new businesses³. In fact, some researchers maintain that there is a strong relationship between enterprise population dynamics and economic growth in Poland⁴. The strong correlation was also confirmed in Ireland, Portugal and Great Britain. In Belgium a negative relationship between enterprise population dynamics and economic growth was noted, whereas in Italy and Austria a lack of such relation was revealed⁵. A thorough analysis of how this trend will develop in the course of time would allow to justify the abovementioned conclusions.

The difference between the 'birth' rate and 'death' rate serves as a measure of changes in enterprise population dynamics (in accordance with Eurostat methodology).⁶

Despite some problems with data presentation which skew the results, enterprise population dynamics in Poland is at a good level (situation improvement in comparison to the year 2006 can be noticed, see A. Ptak-Chmielewska 2010). In 2009 enterprise population dynamics virtually dropped to zero but since 2010 a gradual improvement has been recorded. Assuming 2009 was the effect of regulatory changes (change in PKD, Polish Classification of Activities), we have seen a systematic improvement in enterprise population dynamics since 2007. The greatest dynamics is characteristic of a group of small (micro in particular) and medium enterprises.⁷ An increase in active enterprises (micro and small in particular) that is not accompanied by a rise in registered micro and small businesses indicates the influence of changes in PKD (Polish Classification of Activities) in 2007 as well as the effects of REGON system update. A drop in enterprise dynamics could be treated as a signal of upcoming recession on the market.

According to the new Eurostat/OECD programme regulations – Entrepreneurship Indicators Programme (OECD 2008) – next to enterprise 'birth' rates, 'death' rates and 'survival' rates there are also 'churn' rates defined as a total of enterprise 'birth' rates and 'death' rates. This measure represents the vulnerability of economy to dynamic changes that popularise new ideas and thus trigger economic growth. In compliance with Schumpeterian economic theory, the 'churn' rate is a perturbation measure and indicates that economy can adapt its production structure to changing market requirements. In the case of competing economies both high

³ *Business demography in Europe. Results for 10 Member States and Norway. Data 1997-2001.* „Statistics in Focus” European Commission. Eurostat 2004

⁴ P., Szymański. *Statystyczny obraz narodzin i zgonów przedsiębiorstw.* In: Mączyńska E. (ed.), *Bankructwa przedsiębiorstw. Wybrane aspekty instytucjonalne*, SGH, Warszawa 2008 pp. 263 and further.

⁵ *Business demography in Europe.* Enterprise publications. Observatory of European SMEs 2002/No 5. European Commission 2002.

⁶ Definicja współczynnika urodzeń, zgonów i przedsiębiorstwa aktywnego oraz wskaźnika przeżycia.

⁷ *Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce w latach 2008-2009*, PARP, Warszawa 2010, pp. 31-38.

'birth' rate and 'death' rate in a given period can be observed (Nunes, Sarmento 2010). It has to be emphasised that economies with the prevalence of small and micro enterprises (as in the case of Poland) are characterised by a high 'churn' rate. Persistent high level of this rate in Poland suggests great adaptation capabilities of the Polish enterprise market. A more intensive 'churn' rate increase, as a result of last crisis, has been recorded since 2009. Due to certain inertia of central registers systems (REGON in Poland) the effects of real changes caused by the crisis will be visible with a delay. In 2007 the rate value of 29,6% places Poland at top position in Europe (see figure 2). Cyprus, Belgium, Sweden and Austria come at the end of the list of countries that provided data on demographic rates for enterprises.

Based on Eurostat and Central Statistical Office data a correlation between basic macroeconomic indicators and demographic rates was estimated. Macroeconomic indicators were represented by the following values: GDP per capita in PPS values (PPS Purchasing Power Standards (EU27=100)); GDP in real values (dynamics vs. previous year); Inflation (CPI) in %; Unemployment rate in %; Demographic rates were represented by the following measures: Birth rate in %; Death rate in %; Difference between the birth rate and death rate in %; Total birth rate and death rate in % (so-called 'churn' rate). The strongest correlation was recorded for the 'death' rate and unemployment rate in 2005 (i.e. with an anticipation effect) and the unemployment rate in 2007 and enterprise population dynamics (defined as: difference between 'birth' rate and 'death' rate). A significant interdependence was identified between the birth rate and real GDP from 2007 i.e. without an anticipation effect or delay. Unemployment might be considered as so-called 'push' factor for jobless people to set up own businesses. Own company is becoming an alternative to seeking another forms of employment. GDP growth stimulates establishing new business entities. The relationship between demographic rates for enterprise population and inflation is the strongest for enterprise dynamics (difference between the birth rate and death rate) and the inflation rate from 2005. However, this interdependence is weaker than in previous cases.

Some relationships between basic macroeconomic indicators and demographic rates can be observed in Poland even in such a short period of time as the years 1997-2010. Fully verifiable statistical conclusions on correlation would require a substantially longer observation period.

Demographic rates as basic indicators of enterprise population growth dynamics serve as a measure that is ahead of changes in economic cycle. This is due to their dependence on changes in macroeconomic factors (GDP, Inflation, Unemployment).

Should positive enterprise population growth be expected in the following years? Or is it likely that an unfavourable trend observed in enterprise retention i.e. market adaptation capabilities, reaction capabilities to competition activities and effective resources allocation will prevail? It is demographic indicators applied in enterprise population studies and observation of their changes with time that will answer these questions. The project 'business demography' is essential to scientists, entrepreneurs and politicians who make strategic decisions and therefore should also cover countries beyond EU member states.

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