DEFINING ENTREPRENEURSHIP CONTRIBUTIONS TO ECONOMIC DEVELOPMENT

Abstract: The paper examines the channels of entrepreneurship contributing to economic growth. Based on definition of entrepreneurship as an economic activity targeting profits via introducing new products, exploring new markets and introducing new production methods, main methods for measuring entrepreneurship activity will be examined. No single method can fully appropriate as it lacks the full scope of entrepreneurship activity or includes related issues, but the level of development of it activity is linked to the quantity of newly created firms. The empirical study based on that data revealed three main channels through which entrepreneurship makes its contribution to economic growth – innovation, job creation and competitiveness. The main objective of the paper is to deliver factors which underline the link of entrepreneurship to economic growth. The first factor is a trade off between productive and transferring entrepreneurship, and the second one is a trade off between entrepreneurial and employment economic activity.

Keywords: economic growth, entrepreneurship, innovation, the level of development, appropriate, introducing new production methods, targeting profits.

Introduction
The last decade of post-crisis growth revived theoretical debates on nature and drivers of economic growth. Diverse and controversial results of economic policies demonstrated by leading developed countries arise questions about tools and targets for economic development policies. The global financial crisis also revealed the fragility of economies of developing countries in case of huge external shock. Despite steady and relatively high rate of growth from middle 1990s countries of Central and Eastern Europe suffered significantly from the crisis. Macroeconomic stability did not guarantee the solid ground for economic growth. Under these circumstances, many researches addressed the fundamental factors of economic growth. One of the most controversial among them is the entrepreneurship. Both Schumpeter and Solow adapted it to their concept of economic growth as one of the important driver of economic development, as it increase level of economic activity, and create jobs and most of important

1 Affiliated to University of Economics and Humanities (Bielsko-Biała, Poland)
boost innovation. Moreover, entrepreneurship has strong positive social effects, as it helps to put investments in human capital directly into economic activity, boost social interactions and strengthen social institutions. Entrepreneurship is very active in monitoring new profit options, so it quickly reacts to customer demands, opens new markets and introduces new products. Resulting effect is better distribution of resources and a more flexible economy. In regional and national level entrepreneurship contributes to competitiveness of a territory, as it exploits not only market possibilities with new products, but also introduces new technologies and finds new resources. That explains the prominent role of entrepreneurship support policies in many countries, especially of post-communist administrative economies. Despite a strong theoretical basis for positive effect of entrepreneurship on economic growth, the empirical evidence was not that solid. It can be explained by different methods of measuring it as an economic activity, let alone its definition. Today entrepreneurship appears not only in a form of individual venture, but also goes deep into corporate structures. Another difficulty in tracing economic effect of entrepreneurship among other factors, especially as concepts of human capital and social capital arise. Development of international databases in small and medium enterprises activity improved the quality of empirical studies on the topic and got close to the target of defining entrepreneurship contributions to economic growth.

**Measuring entrepreneurship as an economic factor**

The economic definition and meaning of entrepreneurship involves many aspects of pure economics, but also technological, organizational and social issues. As a productive phenomenon, we can define it as an activity involving discovery, valuation and exploitation of opportunities. Indeed, entrepreneurship aims to introduce new goods and services; new structures of organization; new markets, processes, and materials in ways that did not exist before. Entrepreneurial ideas is about exploiting profit opportunities that previously went unnoticed. Entrepreneurs act on these ideas and the economy becomes more productive. Entrepreneurship is therefore seen as a key instrument improving international and domestic competitiveness, fostering economic growth and increasing job opportunities. Both researchers and decision-makers agree that an entrepreneurial economy tends to be more dynamic and innovative, and more adaptive and flexible responding to shocks.

There are three main approaches in the theory of entrepreneurship. The first one defines entrepreneurship such as the capacity to introduce innovations [Schumpeter 1934], the second one regards a productive entrepreneurship as a result of promoting individuals to devote the efforts for production innovation [Baumol 1990] and the third one states that the central
element of entrepreneurship is the discovery of an unexploited opportunity. If to address a more inclusive definition, we shall consider the one presented by the OECD in 2007. That statement stipulates that entrepreneurship is the result of “all human action to undertake for the purpose of generating value through the creation or development of an economic activity identifying and exploiting new products, new processes or new markets” [OECD 2007]. Entrepreneurship therefore entails the creation of new values on local or external markets, such as new production structures and the new products. Thus, researchers have proposed a significant number of perspectives or definitions of entrepreneurship, as well as several entrepreneurial measures that reflect different types of activities. Entrepreneurship is therefore relatively difficult to measure and several studies have relied on the data from self-employment, surveys, and interviews to examine entrepreneurship from an empirical point of view. The OECD recognizes that the measure of entrepreneurship is a very difficult task because there is no consensus on a reliable and practical set of indicators.

One of the most common indicators for entrepreneurship self-employment may not be appropriate in measuring entrepreneurship in developing countries. Self-employment data usually come from self-reporting procedures of official employment agencies and often abandon unreported respondents. The Global Entrepreneurship Monitor (GEM) project is an effort to produce data that can be comparable between countries. This project relies mainly on surveys and specialized interviews. The GEM goes into reviewing a random sample of people to produce the Total Entrepreneurial Activity (TEA) Index for each country. The TEA index is the sum of start-ups and new businesses. This index shows the proportion of active population that allocate their efforts to the creation of a company. The World Bank Business Surveys (WBGES) are also designed to compare countries, and measure formal sector entrepreneurship and the number of new officially registered private limited companies. However, these surveys also miss the informal sector.

Other approaches to entrepreneurship measurement focus on assessing its dynamics. OECD uses much broader approach as GEM and WBGES, as it goes further to self-employment and targets key indicators for entrepreneurship. To accomplish this task the approach addresses different types of entrepreneurs, such as measured by the individual variables for the number of business owners (including self-employment), or the corporate training in general and for certain types of businesses (eg, high-growth firms). The measure of entrepreneurship may therefore vary according to the size, sector and dynamics of firms, as well as their contribution to build up industrial and social capital.
Theoretical basis for entrepreneurial effect on economic growth

Since the early works of Solow, the theory explained the economic growth by an increase in primary capital and labor resources used in the production and an increase in productivity rate of production factors [Solow 1958]. The comprehensive theory of economic growth includes the internal institutional factors of the market and enterprise, which explain the differences in well-being between countries at any given moment. Solow also studied the dynamics of well-being growth leading to convergence or divergence in per capita income levels. The underlying hypothesis of the economic theory of entrepreneurship is that the economy is endowed with certain factors, thus entrepreneurship contributes to production through improving a combination of factors of production. In result, more entrepreneurial resource allocation implies a greater level of production and well-being. This type of mechanism is considered exogenous in growth models. Works that are more recent focus on methods of identifying the particular aspects of the contribution made by entrepreneurship in economic growth. The development of endogenous growth theory have created new opportunities for adapting entrepreneurship and innovation in growth models. According to the theories of endogenous growth, the research sector is the engine for economic development. These theories view research and development policies being regarded in the broader context of regional issues, such as entrepreneurship, research infrastructure and education institutions, human capital, social capital and industry structures. These are interrelated issues that should be examined in a more comprehensive political framework.

Despite quick development of entrepreneurship in countries of Central and Eastern Europe, it was not in the focus of research. It could be explained by the fact that study of entrepreneurship as a factor for economic growth was not in the mainstream theory framework. In addition, this factor was attached to other determinants of the growth, like human capital, social and economic activity or market infrastructure. Nevertheless, the idea if direct link of an entrepreneurship activity and an economic development is common for growth theories. In his early works, Schumpeter told that an entrepreneur contributes to the economic growth by transforming his qualities, notably his propensity to innovate, into economic activity, favorable for development. Schumpeter defined five distinctive ways of how the entrepreneurship leads to an increased economic growth through “the realization of new combinations”. The first one was the introduction of new goods or property of better quality. The second one was about introducing a new productive method, which led to an increased productivity and resource saving. The third way related to the opening and exploitation of new markets. The forth one was
the consequence of entrepreneurs’ use of new raw materials and intermediate goods. The fifth way led to the creation of new industrial organizations. As entrepreneurs sought for new profit that led to the increase in productivity, the following economic growth created new entrepreneurs that resulted in more growth and the cycle repeated.

**Linking entrepreneurship to economic growth – empirical studies**

The well-predicted but ill-expected financial crisis of 2008, which spread from Lehman Brothers’ bankruptcy case to economics performance of almost every country in the world. The aftermath of the crisis is still felt across the world despite ten years having passed. Europe struggles to return to steady growth rates and experience many shocks – ranging from Greece stabilization program to Brexit. The crisis highlighted the fragility of national economies, notably of the countries of Central and Eastern Europe. National governments chose different policies for overcoming the economic turmoil with mixed results but for sure no country has managed to avoid long-turn negative effects, which followed the programs for macroeconomic stability.

The world financial crisis also fueled the scientific debate of nature, causes and factors for economic growth. From the early 1990s, the mainstream government policy for economic development comprises liberalizations of national markets, build-up of infrastructure and innovation, openness to world economy and shrinking direct government involvement in economic processes. Globalization accelerates enormously, the miracle of China growth, new EU members performed well, but the sudden crisis of 2008 exposed the fundamental differences among national economies in their ability to support steady growth. The basic factors for economic growth all come under revision in both theory and policy-making.

Several empirical studies establish a direct link between entrepreneurship and economic growth. Other empirical studies focus on an indirect relationship, in particular, by establishing an interaction between entrepreneurship and employment growth. There are studies that attempt to analyze the relationship between the level of entrepreneurship and competitiveness of a country or a region. A.J. Van Stel and D.J. Storey define three explanatory variables of the economic growth of a country: the rate of entrepreneurship, the global competitiveness index and per capita performance [Van Stel 2004]. Based on the GEM database at different periods their studies conclude that higher rates of entrepreneurial activity affect on economic growth positively. Using the GEM data on new entrepreneur ventures for 36 countries Wennekers and Thurik come to the conclusion that the flow of new entrepreneurs tend to decrease with the level of development at a certain point, to grow again from this point (U function)
[Wennekers 1999]. If to apply a Cobb-Douglas production function to explain entrepreneurship and innovation as key determinants of growth, the conclusion comes that rapid growth in new entrepreneurial companies generates job creation in small and medium-sized enterprises in developed countries. Empirical studies proved that fiscal pressure, imperfect credit markets, legal restrictions and high interest rate, contrary to public services, impede the entrepreneurial activity. The empirical data from OECD supports the theoretical assumptions that entrepreneurship reduces unemployment, but also that unemployment raises the level of entrepreneurship. The theory of endogenous growth the generated and exploited technical knowledge as a pure endogenous stimulus for growth. Entrepreneurship facilitates spreading of technical knowledge externalities throughout an economic system. But empirical study with OECD data reveled no strong impact of entrepreneurship on economic growth, as well as of R&D activities. However, the combination of two variables has a significant effect on economic growth. Further studies concluded that entrepreneurship generated economic growth, while the effect of R & D remained uncertain. Instead of self-employment data, a patent data may be used as an indicator for productive entrepreneurship. Interestingly, the study of 22 OECD countries and found a positive relationship between the proposed measure productive entrepreneurship, the degree of innovation in different countries and economic growth, while alternative approach based on self-employment appears to be negatively correlated with economic growth. As a factor of diseconomies of scale, new companies may not be necessarily positive for regional growth in the short term, but they are important in long-term economic development.

In 2004, Fritsch conducted a study that compared start-ups and their performance. In his extensive study, he used eight independent variables: the number of employees in their sector, the unemployed, the percentage of employees with a university degree, the percentage of jobs in the SME sector, capital intensity, the cost of unit of labor, the cost of capital and GDP growth [Fritsch 2004]. The author concludes that the characteristics of a growth may change over time, but that development depends on its historical context. As such, the growth regimes do not result from any single factor, but evolve in a period of time.

Audretsch and Keilbach tested the concept of venture capital and the effect of this phenomenon on regional growth. The concept of was that an entrepreneurial venture capital is a factor of production such as capital and labor [Audretsch 2006]. Therefore, the availability of venture capital in a region may be more important to promote economic growth. In several studies of regional economic dynamics, main factors for growth were the growth rate of local economic knowledge, combined with the growth rates of capital and labor. The growth of local economic knowledge is a function of R&D, entrepreneurship, university research, human capi-
tal, social capital and the structure of the industry. Their results indicate that entrepreneurship plays a significant role in regional growth.

The diverse researches and empirical growth studies provide a grand variety of views on factors that support economic growth. As the theory does not tend to reach a compromise on what factors contribute the most to the development, it is reasonable to study the long period performance data from as many countries as possible in hope to identify these factors, which prove their influences across studies with different set of countries and periods. One of the great examples of a study is the extensive research of Sala-i-Martin, Doppelhofer and Miller [Sala-i-Martin 2004]. That study examined 67 factors plotted in three categories: the first one included geographic and socioeconomic factors, the second one included structural, demographic and institutional factors, and the third category spanned over education, openness to trade, government role and monetary factors. The findings of the research put the primary education and cost of investment as the most robust factors of economic growth. However, openness to trade and smaller governments also showed strong link to economic growth. Not surprisingly initial levels of GDP per capita and population growth also largely attributed to growth.

IMF study on the same topic (2003) considered the influence of policy on the growth in comparison with structural and institutional factors. The World Bank (2005) did not find any strong evidence that any individual policy caused any significant effect on economic growth. However, that could be true in case of set of policies. Aghion and Howitt (2005) also noted that context of policy development and implementation almost impossible to capture by a study. The case of the Central and Eastern European countries was a unique example of quick transformation of institutional frameworks, total reorganization of governmental policies and gradual but fast integration into the world economy. The region had some specific features. Sharp decline in output produced a huge unemployment, poor domestic savings were added but foreign ones in some cases, contrary to East Asian country capital accumulation contributed a little to the economic growth. The remarkable feature of the Central and Eastern European countries was a rapid growth of the total factor productivity rate [IMF 2007].

The latter phenomena was explained by privatization and abandoning of central planning that causes reallocation of place of production, shot-down of ineffective enterprises and lay-off of many workers also contributed, direct foreign investment brought new technologies both in management and manufacturing. The role of FDI in growth remains dubious, as results of studies were mostly controversial. Some admits that the impact of FDI depend on the industry, which receive the investment. In case of Central and Eastern European countries, the major
positive effects occurred in transport and electrical machinery industries [Castejon and Woerz 2005]. Interestingly, positive impact of FDI relates to the openness of the receiving economy as most of benefits appear through via export or import flows caused by these investments. The export played the prominent role in growth of total factor productivity but import was also important [Blalock and Veloso 2006].

**Conditionality of positive effect of entrepreneurship on economic growth**

Among the sources of economic growth and development, innovation gets one of center focus in the economic literature. To some extent, innovation is more or less associated with the personality of the individual entrepreneur. From this point of view, the work of the Schumpeter appears decisive. However, in the later works Schumpeter renewed his theories. Capital concentration is regarded as an inevitable result of market development. Under these circumstances, innovation was no longer the prerogative of the entrepreneur, but would be primarily the work of professionals and laboratories controlled by large companies, themselves run by managers. If there is still a room for innovative entrepreneurship, realized by the action of individuals, it can no longer be considered as the only vector of innovation.

The concept of entrepreneurship has become more complex since Schumpeterian time. It comprises not only an opportunistic individual entrepreneur seeking for new profit possibilities. If to consider two opposite option – an individual self-employed entrepreneur and an employee on salary, Wennekers and Thurik define two other types of entrepreneurial activity – intrapreneur and manager-owner. Intrepreneur like an ordinary Schumpeterian entrepreneur uses their personal abilities to develop new products, new technologies, exploit new markets and new resources for profit increase. Manager-owner acts in a routine way, more through organizing and coordinating.

The process of transformation of entrepreneurial efforts into economic growth can be very diverse. However, the central point is that different ideas and initiatives while competing among themselves create more viable firms and industries. Increased productivity build up the productive potential of an economy. The following reallocation of resources creates new combinations for entrepreneurs and intrepreneurs as well. From a territory perspective, the effects related to entrepreneurship also boost competitiveness and local growth. From entrepreneurial initiatives to economic growth, many conditions and multiple effects, at different levels, determine the relationship of incidence from one phenomenon to another. In general the rate the innovative entrepreneurs is higher among the economic active population, the pace of economic growth is more dynamic.
The question of how “the offer” of entrepreneurs arises. Are there any characteristics of the individuals who, through their presence more or less affirmed, will determine their potential entrepreneurial? The classic definition distinguishes between notions of risk and uncertainty. The risk can be the subject of a known probability calculation. Uncertainty, meanwhile, although encompassing the notion of risk, it also refers to events that are not predictable, that is, whose probability distribution is unknown. The assessment of the uncertainty weighing on an event rests more on personal judgment. Therefore, there is a potential entrepreneur, who, considering judgments, would accept the uncertainty associated with the production of goods and services. The expected profits would come in remuneration of this activity. Undertaking and innovating require qualities that make the entrepreneur an exceptional man. One of his motivations remains the pursuit of profit. In the Schumpeterian model individuals differ not by their attitude to risk but by their skills, their intelligence, their competencies, their creative abilities. Nonetheless, the decision to prefer an entrepreneurial activity to employment is still vague. On this vague basis, it is very difficult to develop of a comprehensive model for entrepreneurship-growth relation.

Entrepreneurial activity by stimulating the economic growth affects the economy in general. In particular, it influences labor markets. As we have said before, more growth means more profit opportunities for entrepreneurs. It can also bring some wage pressure. In this case, the rise of salaries must not necessarily result from an imbalance in the labor markets. As an individual makes an arbitration between entrepreneurship profits under uncertainty and employment, the economic growth, which means more profit opportunities for an entrepreneur, also forces the labor market to compete for workforce. Under these conditions, salaries increase.

In this model, both results of the arbitration process – entrepreneurship or employment – result in development of productive activity. The individuals act at best their talents, even if they were entrepreneurial; the private profit sharing coincided fortunately with the social benefit. However, entrepreneurship may also address non-productive activity as transfers for example. These activities also bring rewards to entrepreneurs but in this case, private and public interest may not coincide. This type of behavior revers as rent seeking. In other words, the rent seeking brings social costs by diverting resources to non-productive activity. As an illustration of a rent seeking behavior we can name corruption, theft or piracy, abusive judicial practice aimed at reparations, market position protectionism and any type of limiting competition for personal benefit. Therefore, the losses from rent seeking behavior include negative social impacts of rent seeking but also direct diversion of entrepreneurial talents from productive activity leading to
economic growth. Through innovation, the entrepreneur seeks to create a monopoly position, which may assure strong and sustain profits. In the Schumpeterian model, this motivates innovative behavior. However, the monopoly position may exists only temporary. The competition reduces it more or less quickly to nothing, to benefit of a new monopoly position created by an innovation ... The institutional framework of competition is determinant. In this case, the dynamic of economic activity justifies the existence of an abnormal profit.

Empirical studies of entrepreneurial talent allocation between socially productive and unproductive activities and its impact on growth made several important theoretical contributions. Not surprisingly, the theoretic concept postulates that the diversion of entrepreneurial talents to unproductive activities will have a negative impact on the pace of growth. The determinants of talent allowance, however, merit further consideration. To find these determinants it is reasonable to reconsider the arguments of individual arbitration between activities and, on the other hand, to consider the existence of non-financial determinants. According to Murphy, Shleifer and Vishny (1991) the entrepreneurial talent invests in the activities with the most perspective for personal benefits but social effects play little role in the decision. These authors advance the idea of increasing returns of talent. In others words, the more the individual is capable, the more personal benefits he can raise. The choice of activity depends on analyzing of remuneration benefits, which relate essentially on the size of the market, the conditions of compensation and technology issues. Talent allocation can still be related to the institutional context as well as non-financial explanatory factors.

Legislation and its effective application define an environment conducive to entrepreneurship or, conversely, to rent seeking. Rights of ownership, their channels of their realization are crucial elements. Legislative norms are decisive for modes of compensation and the following taxation. Quality of information in the economy also defines the efficiency of the allocation entrepreneurial efforts as it helps to associate the application of a talent to its result.

In many societies, entrepreneurs enjoy social esteem. However, the question remains to what extent entrepreneurship is valued compared to another profession socially less productive. Finally, entrepreneurs or rent-seekers in the society would influence, through voting or lobbying, the political organization and decisions taken at this level.

Entrepreneurship and rent seeking may interact with each other. According to the formalized models, there are the possible existence of several proportions of entrepreneurs and a growth rate. From this perspective, it is interesting to consider the interaction in the innovative sector. In the short-run rent seeking behavior, undoubtedly, burden the profits of productive sector
firms, as it targets on transfer of existing wealth rather than creating a new one. Nevertheless, rent seeking appear in this sector anyway but from public, not private origins. This argument relates to the nature of innovation process, as an innovative entrepreneur continuously handle with environment and legislative constraints. While putting innovations on a market, developers need to make some adjustments for requirements, obtain permissions and derogations. That creates options for corruption from the side of public authorities. Corruption not only is an unproductive transfer as itself, but also curtail innovators’ possibilities for entering the markets and obtaining profits, as their lobbying power and financial resources are inferior to ones of established firms. As a result, risks and costs of an innovation project increase. The possible solution is to integrate rent seekers interests in the projects as long-term players. That is clear that limiting innovation projects today will result in limiting future possibilities for transfers.

**Conclusion**

The post-crisis economic development was unstable, despite active macroeconomic policy. Countries of Central and Eastern Europe were hit heavily after ten years of steady growth, which allowed them to enjoy macroeconomic stability. This situation revived discussions on fundamentals of economic growth and sparkled new wave of empirical studies on the topic. The entrepreneurship was not the common topic of these studies, as macroeconomic stability, financial sustainability, and institutional factors were in the center of research focus. One of the prominent feature of Central and Eastern Europe countries growth was a prominent role of productivity growth as the contributor to economic development. Capital accumulation was much less observed. Entrepreneurship was regarded as one of the driver of this development, as it closely linked to innovation and factor redistribution. Although the theoretical concepts of entrepreneurship as a factor for economic growth are solid, empirical evidence remains uncertain. Entrepreneurship contributes to economic growth through three main channels. The first one is developing innovation as an exploration of new markets, developing new products and introducing new methods in production. The second one is job creation in both individual and corporate business sector. The third one is boosting competitiveness on regional and national level. Two main conditions define how strong the influence of entrepreneurship on the economic growth will be. The first condition is about channeling entrepreneurial activity in productive, not in transferring sector. Restrictive legislation, inefficient financial markets and hard access to investment, corrupted political and social institutions provoke non-productive, rent seeking, entrepreneurship. The second condition applies for “supply” of entrepreneurs, which is a function of choice between employment and entrepreneurship activity. Notable
remark is that entrepreneurship appear inside corporations in for of intrapreneurship today. Levels of education, social and human capital, along with efficient market infrastructure and social institutions affect the way people assess future profits and make their choice for entrepreneurship. The contribution of entrepreneurship in economic growth will be large under non-restrictive legislation, efficient market infrastructure, easy access to capital and buildup of human capital.

References
2. Solow, R. “A contribution to the Theory of Economic Growth,”

