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Does High Public Health Expenditure Slow Down Economic Growth?

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Abstract:

This study examines the non-monotonic relationship between public health expenditure and economic growth in 97 countries from 1981 to 2010, using the dynamic panel threshold technique. The paper contributes to existing literature by providing new evidence on the relationship between public health expenditure and economic growth. The findings show that public expenditure has a non-linear effect on economic growth. Specifically, health expenditure is beneficial to growth until a certain threshold level, above the threshold point, however; public health expenditure impedes growth. In addition, when the impact of public health expenditure on growth is contingent on life expectancy, the results reveal that below the threshold of life expectancy, health expenditure enhances growth; but any increase in longevity above the threshold, health expenditure lessens growth.

Keywords: public health expenditure, life expectancy, economic growth, dynamic panel threshold.

JEL Classification: H51, O47, J11, C23.

1. Introduction

Governments finance health both directly, through spending on the health sector, and indirectly, through spending on other related social sectors – to improve education levels or reducing poverty, for instance. Although it contains only the direct aspect, the proportion of government expenditure allocated to the health sector provides insight into the value of that government place on health, which may vary greatly across countries. The income differences across countries may to large extent explains the huge variations in resources allocated to health. In general, health accounts for a higher share of Gross Domestic Product as countries get wealthier (Missoni and Solimano 2010). Nowadays, the impact of public health spending on economic growth is determined by the high level of human capital and economic productivity. The increasing number of aging population and the cost of health care driven by the demographic and epidemiological transitions cause a burden on public finances especially public health financing (Potrafke 2010, Colombier 2011). The impact of public expenditure on health considered an influential factor that affects economic growth. Specifically, more public health expenditure generates higher life expectancy, and hence, longevity tends to improve economic growth (Reinhart 1999). In other words, the effect of health expenditure from public source of financing is indirect because, it leads to better health outcome and thus health status affects growth positively. On the other hand, the monotonic impact of life expectancy on economic growth was questionable by recent studies, especially when the demographic transition stage is taken into consideration, the relationship might have a non-monotonic pattern (Kelley and Schmidt 1995, Zhang *et al.* 2003, An and Jeon 2006, Cervellati and Sunde 2011, Kunze 2014). Consequently, the public expenditure effect on economic growth may not be the same for the entire countries with regard to their economic development and demographic transition stages (Aísa and Pueyo 2006). Importantly, Carboni and Medda (2011) argue that paying no attention to the possibility of a non-monotonic effect of public expenditure on economic growth may lead to misspecification.

This study aims to examine the non-monotonic effect of public health expenditure on economic growth taking the heterogeneity related to the demographic transition into account. Particularly, whether or not there existed a threshold level of public health expenditure in the public expenditure-growth nexus, where public health expenditure stimulates growth up to a certain point and hinders growth after expenditure on health surpasses the threshold. In addition, the relationship between public health expenditure and economic growth may be contingent on the level of life expectancy,

where public health spending encourages growth up to a certain threshold point and slows down the growth rate after life expectancy exceeds the threshold point. In this study, the effect of health spending on growth is investigated in 97 developed as well as developing countries during the period 1981-2010. The recent dynamic panel threshold estimation procedure introduced by Kremer *et al.* (2013) is adopted to address the non-linear relationship between health expenditure and growth.

Conclusion

The main goal of the current study was to assess the non-monotonic relationship between health expenditure from public source of financing and economic growth, utilizing large sample of 97 developed and developing countries over the period 1981-2010. The study aimed to determine whether or not there exists threshold level of public health expenditure in its relationship with economic growth. In addition, the claim made by Aísa and Pueyo (2006) that the impact of public health expenditure on growth is contingent on life expectancy is also investigated in this study. More appropriate estimation technique, the dynamic panel threshold introduced by Kremer *et al.* (2013), was used to achieve the objectives of the study. The empirical results showed that there is a non-monotonic relationship between public health expenditure and economic growth contingent on a certain threshold level of health expenditure. Specifically, when health expenditure is below the threshold, it positively affects economic growth, indicating that further public expenditure on health enhances the growth rate of the economy. However, when public health expenditure is above the threshold, the effect of health expenditure on growth is negative. This shows that any further increase in public expenditure will adversely affect growth. The findings, furthermore, enhance our understanding that the non-monotonic relationship between health expenditure and economic growth is contingent on life expectancy. It has been shown that the impact of public health expenditure on growth below life expectancy threshold was positive and statistically significant, however any increase in longevity above the threshold point will make economic growth react negatively to any change in public expenditure on health.

The current findings suggest that in developing countries where life expectancy is low, any increase in public health expenditure stimulates growth through enhancing life expectancy. However, in developed states where life expectancy is relatively high any increase in health expenditure by the public have an adverse impact on economic growth. An implication of this is that the demographic transition has important effects on increasing public health expenditure, mainly in developed countries where the growing number of aging population put more pressure on health systems. Therefore, greater efforts are needed to ensure the efficiency of public finances and health care systems in both developed as well as developing countries.

References

- [1] Aísa, R., Pueyo, F. (2006). Government health spending and growth in a model of endogenous longevity. *Economics Letters*, 90(2): 249–253. DOI:10.1016/j.econlet.2005.08.003
- [2] An, C.-B., Jeon, S.-H. (2006). Demographic change and economic growth: An inverted-U shape relationship. *Economics Letters*, 92(3): 447–454. DOI:10.1016/j.econlet.2006.03.030
- [3] Arellano, M., Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics*, 68: 29–51. DOI:10.1016/0304-4076(94)01642-D
- [4] Baldacci, E. *et al.* (2008). Social Spending, Human Capital, and Growth in Developing Countries. *World Development*, 36(8):1317–1341. DOI:10.1016/j.worlddev.2007.08.003
- [5] Barro, R.J. (1990). Government Spending in a Simple Model of Endogenous Growth. *The Journal of Political Economy*, 98(5): 103–125. Retrieved from <http://www.jstor.org/stable/2937633>
- [6] Barro, R.J. (2013). Health and Economic Growth. *Annals of Economics and Finance*, 2: 305–342.
- [7] Barro, R.J., Lee, J.W. (2013). A new data set of educational attainment in the world, 1950–2010. *Journal of Development Economics*, 104: 184–198. DOI:10.1016/j.jdeveco.2012.10.001
- [8] Barro, R.J., Sala-i-martin, X. (1992). Public Finance in Models of Economic Growth. *Review of Economic Studies*, 59(4): 645–661. DOI:10.1016/S0164-0704(96)80041-3
- [9] Beraldo, S., Montolio, D., Turati, G. (2009). Healthy, educated and wealthy: A primer on the impact of public and private welfare expenditures on economic growth. *Journal of Socio-Economics*, 38(6): 946–956. DOI:10.1016/j.socec.2009.06.013
- [10] Caner, M., Hansen, B.E. (2004). Instrumental variable estimation of a threshold model. *Econometric Theory*, 20: 813–843. DOI: 10.1017/S0266466604205011
- [11] Carboni, O. A., Medda, G. (2011). Government spending and growth in a neoclassical model. *Mathematics and Financial Economics*, 4(4): 269–285. DOI:10.1007/s11579-011-0045-2
- [12] Colombier, C. (2011). Does the composition of public expenditure affect economic growth? Evidence from the Swiss case. *Applied Economics Letters*, 18(January 2015): 1583–1589. DOI:10.1080/13504851.2011.554361
- [13] Dao, M.Q. (2012). Government expenditure and growth in developing countries. *Progress in Development Studies*, 12(1): 77–82. DOI:10.1177/146499341101200105

- [14] Eryigit, S.B., Eryigit, K.Y., Selen, U. (2012). The Long-Run Linkages Between Education, Health and Defence Expenditures and Economic Growth: Evidence From Turkey. *Defence and Peace Economics*, 23(6): 559–574. DOI:10.1080/10242694.2012.663577
- [15] Galama, T. (2011). A Contribution to Health Capital Theory, Available at: http://www.rand.org/content/dam/rand/pubs/working_papers/2011/RAND_WR831.pdf
- [16] Govindaraju, V.G.R.C., Rao, R., Anwar, S. (2011). Economic growth and government spending in Malaysia: A re-examination of Wagner and Keynesian views. *Economic Change and Restructuring*, 44: 203–219. DOI:10.1007/s10644-010-9099-z
- [17] Hajamini, M., Falahi, M.A. (2014). The nonlinear impact of government consumption expenditure on economic growth: Evidence from low and low-middle income countries. *Cogent Economics & Finance*, 2(1): 1–15. DOI:10.1080/23322039.2014.948122
- [18] Hansen, B.E. (1999). Threshold effects in non-dynamic panels: Estimation, testing, and inference. *Journal of Econometrics*, 93(2): 345–368. DOI:10.1016/S0304-4076(99)00025-1
- [19] Kelley, A.C., Schmidt, R.M. (1995). Aggregate population and economic growth correlations: the role of the components of demographic change. *Demography*, 32(4): 543–555. DOI: 10.2307/2061674
- [20] Kesikoglu, F., Oztyrk, Z. (2013). Relationship Between Human Capital and Economic Growth: Panel Causality Analysis for Selected OECD Countries. *Journal of Economic and Social Studies*, 3(1): 153–162. DOI: 10.14706/JECOSS11315
- [21] Khan, H.N. *et al.*, (2015). Health Care Expenditure and Economic Growth in SAARC Countries (1995 – 2012): A Panel Causality Analysis. *Applied Research in Quality of Life*, pp.1–23. DOI:10.1007/s11482-015-9385-z
- [22] Kremer, S., Bick, A., Nautz, D. (2013). Inflation and growth: new evidence from a dynamic panel threshold analysis. *Empirical Economics*, 44(2): 861–878. DOI:10.1007/s00181-012-0553-9
- [23] Law, S.H., Singh, N. (2014). Does too much finance harm economic growth? *Journal of Banking & Finance*, 41: 36–44. DOI:10.1016/j.jbankfin.2013.12.020
- [24] Martins, S., Veiga, F.J. (2014). Government size, composition of public expenditure, and economic development. *International Tax and Public Finance*, 21(4): 578–597. DOI:10.1007/s10797-014-9313-4
- [25] Missoni, E., Solimano, G. (2010). Towards Universal Health Coverage: the Chilean experience.
- [26] Narayan, P.K., Nielsen, I., Smyth, R. (2008). Panel data, cointegration, causality and Wagner's law: Empirical evidence from Chinese provinces. *China Economic Review*, 19(1): 297–307. DOI:10.1016/j.chieco.2006.11.004
- [27] Nketiah-Amponsah, E. (2009). Public spending and economic growth: evidence from Ghana (1970–2004). *Development Southern Africa*, 26(3): 477–497. DOI: 10.1080/03768350903086846
- [28] Potrafke, N. (2010). The growth of public health expenditures in OECD countries: do government ideology and electoral motives matter? *Journal of health economics*, 29(6): 797–810. DOI:10.1016/j.jhealeco.2010.07.008
- [29] Reinhart, V.R., (1999). Death and taxes: their implications for endogenous growth. *Economics Letters*, 62(3): 339–345. DOI: 10.1016/S0165-1765(98)00250-X
- [30] Samudram, M., Nair, M., Vaithilingam, S. (2009). Keynes and Wagner on government expenditures and economic development: The case of a developing economy. *Empirical Economics*, 36: 697–712. DOI: 10.1007/s00181-008-0214-1
- [31] Tang, C.F., (2009). An Examination of the Government Spending and Economic Growth Nexus for Malaysia Using the Leveraged Bootstrap Simulation Approach. *Global Economic Review*, 38(2): 215–227. DOI: 10.1080/12265080902903266
- [32] Wang, K.M. (2011). Health care expenditure and economic growth: Quantile panel-type analysis. *Economic Modelling*, 28(4): 1536–1549. DOI: 10.1016/j.econmod.2011.02.008
- [33] Wu, S.Y., Tang, J.H., Lin, E.S. (2010). The impact of government expenditure on economic growth: How sensitive to the level of development? *Journal of Policy Modeling*, 32(6): 804–817. DOI: 10.1016/j.jpolmod.2010.05.011
- [34] Zhang, J., Zhang, J., Lee, R. (2003). Rising longevity, education, savings, and growth. *Journal of Development Economics*, 70(1): 83–101. DOI: 10.1016/S0304-3878(02)00088-3

Risk Management Tools in Russian Aviation Engineering Companies

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Abstract:

This paper covers on the approaches to risk management tools in Russian aviation engineering companies. The topic is of urgency as in high volatility external environment it is imperative for companies to take steps on lowering and preventing risks. The authors are rationalizing the insufficiency of using the international standards of risk management to ensure the stability of a company. The authors recommend applying various quality/quantity analysis methods to solve risk management issues. Special attention is paid to the cognitive modeling technology which allows to: study the issues described by inexplicit factors and mutual relationships; structuralize and formalize the knowledge on the emerging processes/phenomena and obtain new knowledge on possible future changes; study upcoming scenarios and create viable and highly efficient solutions on that basis.

Keywords: risk management, risk management tools, aviation engineering, cognitive analysis.

JEL Classification: G32.

1. Introduction

The macroeconomic and political events of the past two years have shown demonstratively that in the contemporary global business environment threats and uncertainty are dominating. Risks are present everywhere – internal and external, mutually related, growing and continuously varying. That situation prioritizes the issues of identification, assessment and prevention of risks for any company. For Russian aviation engineering companies, operating under the sanctions imposed by the EU, risk management issue is the most urgent. Enhancement of stability to external environment challenges suggests not only the use of the advanced practices in risk management, but seeking for new solutions via adaptation of known risk management tools to particular business environment.

The international risk management practice is based on relevant standards and recommendations developed by experts and accepted by professional communities:

- Risk Management Standard (risk management standard developed by the Federation of European Risk Managers Association (FERMA);
- Enterprise Risk Management (Integrated corporate risk management standards COSO), the USA;
- Australian/New Zealand Risk Management Standard (AS/NZS 4360);
- BS 31100, Code of Practice for Risk Management (the UK).

In Russia, risk management in compliance with the international standards is declared by large integrated entities. That is conditioned by the need for public informing of stakeholders of the performance in the annual report format. (Aleksandrova and Aleksandrova 2014)

The opportunity to detect the real attitude to risks by corporate top management and staff using unbiased methods is rather low. Therefore, the assessments obtained through questioning a wide range of national top managers within a long time are virtually the only available source of insider information on the situation and trends in that business management area.

Conclusions

In the complex conditions of the operation of the Russian aviation engineering sector, related, on the one hand, to the sanctions policy by the EU, and on the other hand, to the need for enhancement of the national defense, the issues of identification and accounting for risks in the course of the development and manufacturing of science-intensive products are urgent.

The current ambiguous situation requires continuous corporate improvement and optimization of risk management. Companies have to resist growing competition and lack of qualified staff, and monitor rapidly developing technologies.

Due to its specifics, the operation of the Russian aviation engineering companies requires the development of an integrated system of risk management. As the architecture of such risk management system, the model of *three lines of defense* is rationalized.

To build a risk management system it is recommended to apply the portfolio approach. Risk portfolio of innovation projects is a set of innovation projects, balanced from the risk appetite standpoint, created with the goal to ensure security and achieve corporate strategic development goals. Risk portfolio should be modeled via the cognitive approach based on cognitive analysis. Within this article's research, the following basic conclusions have been made:

- Russian aviation engineering companies recognize the importance of risk management system in the achievement of strategic goals;
- the risk management approaches applied at that stage provide for the implementation of actions in connection with prevention and lowering the level of two risk groups: legal and financial;
- it is required to expand the tools at every stage of risk management (identify, analyze, plan, monitor, respond);
- the experience of the use of various models and methods based on cognitive maps proves their feasibility in solving risk management issues.

Our research in cognitive analysis of risks will be continued.

References

- [1] Aleksandrova, A.V., Lukyanova, E.V. 2012. Science-Intensive Aviation Engineering Products Promotion Technology. *Economics and Management in Engineering*, 4: 47-52.
- [2] Aleksandrova, A.V., Aleksandrova, K.D. 2014. Capitalization Management from Stakeholders' Standpoint. *International Research Journal*, 2-2(21): 34-35.
- [3] Aleksandrova, A.V., Protsenko, Ye.V. 2015. Scientific and Manufacturing Enterprises as a Crucial Element of Innovative Structure of Aviation Engineering. In A.V. Babkin (Ed.), *Economic Restructuring: Theory and Instruments*, Saint-Petersburg: Polytechnic University Publishing, pp: 373-398.
- [4] Aleksandrova, A.V. 2015. Cognitive Technologies to Support Making Managerial Decisions. In S.G. Falko (Ed.), *Bulletin of Scientific Works of the 6th International Congress on Controlling "Controlling Challenges and Requirements to Controllers*, Moscow, pp: 6-11.
- [5] Dudin, M.N., Lyasnikov, N.V., Sekerinand, V.D., Gorohova, A.E. 2014. Historical Aspects of Global Transformation of Engineering Thought in Industry and Agriculture in the Context of Changing the Technological Modes. *American-Eurasian Journal of Sustainable Agriculture*, 8(6): 17-22.
- [6] Dudin, M.N., Lyasnikov N.V., Veselovsky M.Y., Sekerinand V.D. and Aleksakhina, V.G. 2014. The Problem of Forecasting and Modeling of the Innovative Development of Social-Economic Systems and Structures. *Life Science Journal*, 11(8): 549-552. Date Views 08.01.2016 www.lifesciencesite.com
- [7] Kachalov, R.M. and Pletenenko, O.A. 2014. Economic Risk in National Business: Look-Back Analysis of Questionnaires for 2005-2014. In Collection of Scientific Works "Theory and Practice of Institutional Transformations in Russia", Moscow: Central Economic and Mathematical Institute of RAS, pp: 155-161.
- [8] Korobko, M.O. 2014. Definition, Types and Specifics of Corporate Reputational Risk. *Controlling*, 1(51): 18-21.
- [9] Linton, J. and Vonortas, N. 2015. From Research Project to Research Portfolio: Meeting Scale and Complexity. *Foresight-Russia*, 9(2): 38-43.
- [10] Lyasnikov, N.V., Dudin, M.N., Sekerin, V.D., Veselovskyand, M.Y. and Aleksakhina, V.G. 2014. The National Innovation System: the Conditions of Its Making and Factors in Its Development. *Life Science Journal*, 11(6): 535-538. Date Views 08.01.2016 www.lifesciencesite.com/lj/life1106/078_24751life110614_535_538.pdf.

- [11] Meissner, P. and Wulf, T. 2013. Cognitive Benefits of Scenario Planning: Its Impact on Biases and Decision Quality. *Technological Forecasting and Social Change*, 80(4): 801-814.
- [12] Meissner, P., Sibony O. and Wulf, T. 2015. Are you Ready to Decide? McKinsey Quarterly, April. Date Views 08.01.2016 www.mckinsey.com/insights/strategy/are_you_ready_to_decide.
- [13] Parfenova, M.J, Babishin, V.D., Yurkevich, E.V., Dudinand M.N. and Sekerin, V.D. 2014. Methodology Making Management Decisions Based on a Modified Ramsey Model. *Asian Social Science*, 10(17): 292-301.
- [14] Popper, R. 2012. Monitoring issledovaniybudushchego [Mapping Futures Studies]. *Foresight-Russia*, 6(2): 56-74 (in Russian).
- [15] Sekerin, V.D, Avramenko, S.A. Veselovskyand, M.Y., Aleksakhina, V.G. 2014. B2G Market: The Essence and Statistical Analysis. *World Applied Sciences Journal*, 31(6): 1104-1108. Date Views 08.01.2016 www.idosi.org/mejsr/mejsr17%2810%2913/8.pdf
- [16] Sekerin, V.D. and Gribov, V.D. 2014. The Miles Stones of Logistics Management Development. *World Applied Sciences Journal*, 30(4): 454-459. Date Views 08.01.2016 [http://www.idosi.org/wasj/wasj30\(4\)14/11.pdf](http://www.idosi.org/wasj/wasj30(4)14/11.pdf)
- [17] Zaichenko, S., Kuznetsova T. and Roud, V. 2014. Features of Interaction between Russian Enterprises and Research Organizations in the Field of Innovation. *Foresight-Russia*, 8(1): 6-23.
- *** Basel Committee on Banking Supervision, 2013, January. Principles for Effective Risk Data Aggregation and Risk Reporting. Date Views 08.01.2016 <http://www.bis.org/publ/bcbs239.pdf>
- *** Official Web Page of AO Russian Helicopters. Date Views 25.10.2015 www.russianhelicopters.aero/ru/
- *** Official Web Page of AO United Engines Corporation. Date Views 02.11.2015 www.uk-odk.ru/files/Godovoi_otchet_ODK_2014.pdf.
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- *** Risks in Review. Ensuring Competitive Advantage in Instability Conditions, 2015. Date Views 15.11.2015 www.pwc.ru/ru/riskassurance/publications/risk-in-review.html

A Framework for Assessing Sustainability of Farming Enterprises

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Abstract:

This paper gives an answer to two important questions: „what is sustainability of farming enterprises?“ and „how to assess sustainability of farming enterprises?“. First, major shortcomings of dominating approaches for assessment of sustainability of farming enterprises like individual and family farms, agro-companies, agro-cooperatives etc. are summarized, and the needs for improvement underlined. Second, evolution of the “concept” and the major approaches for assessing sustainability of farming enterprises is discussed. More adequate definition of the farming enterprise’s sustainability is suggested as ability of a particular form to maintain its governance, economic, social and ecological functions in a long term. Finally, a specific for the conditions of Bulgarian agriculture framework for assessing sustainability of farming enterprises is proposed. The later includes a system of appropriate principles, criteria, indicators, and reference values for evaluating governance, economic, ecological and social aspects of farming enterprise’s sustainability as well as an approach for their integration and interpretation. The ultimate objective of this study is to work out an effective framework for assessing sustainability of farming enterprises of different type in the specific economic, institutional and natural environment, assist farm and agro-business management and strategies, and agricultural policies and forms of public intervention in agrarian sector.

Keywords: farm sustainability, governance, economic, social, ecological aspects, framework for assessment.

JEL Classification: Q12, Q13, Q15, Q18, Q2, Q3, Q5.

1. Introduction

Around the globe the issue of assessment of sustainability of farming enterprises such as individual and family farms, agri-firms, agro-cooperatives etc. is among the most debated by the researchers, farmers, agri-business managers, investors, policy-makers, interest groups, and public at large (Andreoli and Tellarini, Bachev 2005, 2009, 2010, 2012, Bachev and Petters, Bastianoni *et al.*, Cauwenbergh *et al.*, FAO, Fuentes, Häni *et al.*, OECD, Rigby *et al.*, Sauvenier *et al.*, UN). The question “what is the level of sustainability of different type of farming enterprises during to present programming period of EU CAP implementation?” is also particularly topical at the current stage of development of European agriculture. Despite the enormous progress in the theory and practice in that new evolving area, still there is no consensus on “what is (how to define) sustainability of farming enterprises”, “what is the relation between the farm and the agrarian sustainability”, and “how to evaluate the sustainability level of farming enterprises” in a dynamic world, where hardly there is anything actually “sustainable”. This paper suggests a framework for assessing sustainability of farming enterprises (The Farms) in the condition of EU CAP implementation. First, the needs for improvement of the system of sustainability assessment are underlined. Second, evolution of the “concept” of farm sustainability and the main approaches for its assessment is analyzed, and on that base a more precise definition of the sustainability of farming enterprises suggested. Finally, a system of principles, criteria and indicators for assessing sustainability of farms at the current stage of agrarian development in Bulgarian is proposed. Ultimate objective is to assist farm and agri-business management, and agricultural policies and forms of public intervention in agrarian sector.

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Conclusion

Studying out the farming enterprise as a governance structure becomes a key for understanding its sustainability. Accordingly the sustainability of a farming enterprise (individual and family holding, agri-firm, agro-cooperative etc.) is to incorporate one new important dimension the “governance efficiency and adaptability” and its assessment include a new criteria and appropriate indicators for measurement and analysis. Furthermore, a “complete” assessment of sustainability levels would require a new type of macro and micro economic data on agent’s preferences, transaction costs, institutional environment, impacts on environment and communities, etc.

Suggested in this paper system for assessment of the sustainability of farming enterprises will be tested in the coming months and after improvements will be used to assess the level of sustainability in one of the regions of Bulgaria. Eventually, the tested system of assessing farms sustainability will be suggested for a wider use in the farming and managerial practices in the country and abroad.

References

- [1] Andreoli, M. and Tellarini, V. (2000). Farm sustainability evaluation: methodology and practice, *Agriculture, Ecosystems & Environment*, Volume 77, (1–2): 43–52. [http://dx.doi.org/10.1016/S0167-8809\(99\)00091-2](http://dx.doi.org/10.1016/S0167-8809(99)00091-2)
- [2] Bachev, H. (2005). Assessment of Sustainability of Bulgarian Farms, proceedings, XIth Congress of the European Association of Agricultural Economists, Copenhagen.
- [3] Bachev, H. (2004). Efficiency of Agrarian Organizations, in *Farm Management and Rural Planning* No 5, Kyushu University, Fukuoka, 135-150.
- [4] Bachev, H. (2009). Mechanisms of Governance of Sustainable Development, *Journal of Applied Economic Science*, 4(2): 169-184.
- [5] Bachev, H. (2010). *Governance of Agrarian Sustainability*, New York: Nova Science Publishers.
- [6] Bachev, H. (2010a). *Management of Farm Contracts and Competitiveness*, VDM Verlag Dr.Muller.
- [7] Bachev, H. (2011). Needs, Modes and Efficiency of Economic Organizations and Public Interventions in Agriculture, *Review of Economics & Finance*, 3: 89-103.
- [8] Bachev, H. (2012). Evolution, Efficiency and Challenges of Environmental Management in Bulgarian Agriculture, in Vitale, K (editor) *Environmental and Food Safety and Security for South-East Europe and Ukraine*, Springer. http://dx.doi.org/10.1007/978-94-007-2953-7_6
- [9] Bachev, H. (2013). Risk Management in Agri-food Sector, *Contemporary Economics*, 7(1): 45-62. <http://dx.doi.org/10.5709/ce.1897-9254.73>.
- [10] Bachev, H. (2014). *Environmental Management in Agriculture, Mechanisms, Forms and Efficiency*, LAP LAMBERT Academic Publishing.
- [11] Bachev, H. (2015). What is Sustainability of Farms? SSRN, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2705390.
- [12] Bachev, H. and Peeters, A. (2005). Framework for Assessing Sustainability of Farms, in *Farm Management and Rural Planning* No 6, Kyushu University, Fukuoka, 221-239.
- [13] Bachev, H., Koteva, N. and Mladenova, M. (2014). The Effects of Implementing European Policies in Agricultural Holdings in the Republic of Bulgaria, 4(1): 90-106.
- [14] Bastianoni, S., Marchettini, N., Panziera, M. and Tiezzi, E. (2001). Sustainability assessment of a farm in the Chianti area (Italy), *Journal of Cleaner Production*, 9(4): 365–373. [http://dx.doi.org/10.1016/S0959-6526\(00\)00079-2](http://dx.doi.org/10.1016/S0959-6526(00)00079-2)
- [15] Brklacich, M., Bryant, C. and Smith, B. (1991). Review and appraisal of concept of sustainable food production systems, *Environmental Management*, 15(1): 1-14. <http://dx.doi.org/10.1007/BF02393834>
- [16] Edwards, C., Lal, R., Madden, P., Miller, R. and House, G. (editors), (1990). *Sustainable Agricultural Systems*, Soil and Water Conservation Society, Iowa.

- [17] Fuentes, M. (2004). Farms Management Indicators Related to the Policy Dimension in the European Union, OECD Expert Meeting on Farm Management Indicators and the Environment, 8-12 March 2004, New Zealand.
- [18] Häni, F., Pintér, L. and Herren, H. (2006). Sustainable Agriculture. From Common Principles to Common Practice, Proceedings of the first Symposium of the International Forum on Assessing Sustainability in Agriculture (INFASA), March 16, 2006, Bern, Switzerland.
- [19] Hansen, J. (1996). Is Agricultural Sustainability a Useful Concept, *Agricultural Systems*, 50: 117-143. [http://dx.doi.org/10.1016/0308-521X\(95\)00011-S](http://dx.doi.org/10.1016/0308-521X(95)00011-S)
- [20] Hayati, D., Ranjbar, Z. and Karami, E. (2010). Measuring Agricultural Sustainability, in E. Lichtfouse (ed.), *Biodiversity, Biofuels, Agroforestry and Conservation Agriculture*, 73, Sustainable Agriculture Reviews 5, Springer Science+Business Media B.V., 73-100. <http://dx.doi.org/10.1007/978-90-481-9513-8>
- [21] Hendricks, N. (2010). The Effect of Green Payments on the Diffusion of Conservation Technologies, https://www.researchgate.net/publication/254384150_The_Effect_of_Green_Payments_on_the_Diffusion_of_Conservation_Technologies.
- [22] Ikerd J. (2015). On Defining Sustainable Agriculture, SARE.
- [23] Koreva, N. and Bachev, H. (2010). Framework for Assessing Competitiveness of Agricultural Farms, *Agricultural Economics and Management*, 1: 32-43.
- [24] Lowrance, R., Hendrix, P. and Odum, E. (2006). A hierarchical approach to sustainable agriculture, *American Journal of Alternative Agriculture*, 1(4): 169 – 173, <http://dx.doi.org/10.1017/S0889189300001260>
- [25] Lopez-Ridaura, S., Masera, O. and Astier, M. (2002). Evaluating the Sustainability of Complex Socio-environmental Systems. MESMIS Framework, Ecological Indicators.
- [26] Mirovitskaya, N. and Ascher, W. (2001). Guide to Sustainable Development and Environmental Policy, Duke University Press, London.
- [27] Raman, S. (2006). Agricultural Sustainability. Principles, Processes and Prospect., New York: The Haworth Press Inc.
- [28] Rigby, D., Woodhouse, P., Young, T. and Burton M. (2001). Constructing a farm level indicator of sustainable agricultural practice, *Ecological Economics*, 39(3): 463–478. [http://dx.doi.org/10.1016/S0921-8009\(01\)00245-2](http://dx.doi.org/10.1016/S0921-8009(01)00245-2)
- [29] Sauvenier X., Valekx, J., Van Cauwenbergh, N., Wauters, E., Bachev, H., Biala, K., Biolders, C., Brouckaert, V., Garcia-Cidad, V., Goyens, S., Hermey, M., Mathijs, E., Muys, B., Vanclooster, M. and Peeters, A. (2005). Framework for Assessing Sustainability Levels in Belgium Agricultural Systems – SAFE, Belgium Science Policy, Brussels.
- [30] VanLoon, G., Patil, S., and Hugar, L. (2005). *Agricultural Sustainability: Strategies for Assessment*. London: SAGE Publications.
- *** COST (2009). COST Foresight 2030 – Proceedings of the Parallel Workshops on Energy, Food Security, Life Enhancement and Natural Resources Management, 30 June - 02 July 2009, Brugge.
- *** EC (2001). A Framework for Indicators for the Economic and Social Dimensions of Sustainable Agriculture and Rural Development, European Commission.
- *** FAO (2013). SAFA. Sustainability Assessment of Food and Agriculture systems indicators, FAO.
- *** OECD, 2001. Environmental indicators for agriculture. Volume 3: Methods and Results. OECD, Paris.
- *** UN (1992). Report of the United Nations Conference on Environment and Development, 3-14 June 1992, Rio de Janeiro: United Nation.
- *** UN (2015). Paris Climate Change Conference – November-December 2015
- *** http://unfccc.int/meetings/paris_nov_2015/meeting/8926.php
- *** <http://www.sustainable-ag.ncsu.edu/onsustainableag.htm>

Examination of the Crisis Effects on Macroeconomic Development and Convergence in the New European Monetary Union Member States

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Abstract:

Even after more than a decade, a position of certain countries, especially of so-called former transition economies, can be still described as lagging. The project of the European Union took away a significant degree of sovereignty from member states and the common currency eliminated the possibility of using exchange rates as offsetting tools in case of serious economic fluctuations. This paper focuses on the comparison of macroeconomic indicators across new EMU states and Germany over the period of 15 years including crisis. We wanted to verify whether we could still talk about similar convergence trends among "new" members or if these countries are rather "drifting apart" in their economic development due to the crisis.

Keywords: stabilisation policy, EMU countries, crisis, labour market, macroeconomic development.

JEL Classification: E60, E66, E61.

1. Introduction

A project of the monetary union among European countries took away a significant degree of sovereignty from member states and the common currency eliminated the possibility of using exchange rates as offsetting tools in case of serious economic fluctuations. What is more, the countries are also partially restricted in the domain of fiscal policy and should respect the limits set for budget deficit and government debt set by the Stability and Growth Pact. All of this limits the extent to what these policies can be used in case of macroeconomic destabilisations and various problems. Measures chosen for stabilisation highly depend on the type of occurring shocks or crisis, on the degree of similarity of the shocks in various member countries and the speed with which countries are able to adjust. (Frenkel, Nickel, Schmidt 1999)

This paper will be focused on the comparison of macroeconomic indicators across new EMU states over the period of 15 years including crisis. We wanted to verify whether we could still talk about similar convergence trends among "new" members or if these countries are rather "drifting apart" in their economic development due to the crisis. Firstly, the paper presents overall macroeconomic situation of these countries with deeper focus on current situation of labour markets and the last section looks on the effects of demand shocks on macroeconomic variables.

Conclusion

The fact that future EMU countries were far from being the optimum currency area were well known. Even after more than a decade, a position of certain countries, especially of so-called former transition economies, can be still described as lagging. The project of the European Union took away a significant degree of sovereignty from member states and the common currency eliminated the possibility of using exchange rates as an offsetting tool in case of serious economic fluctuations. That is why a persisting unequal position of individual member countries at the current rate of globalisation and interdependence, together with a restricted scope of country's economic policy, is still feeding debates of maintaining or improving national competitiveness or managing country's responses to various shocks. Strict fiscal stance and subsequent forced consolidation of budgets together with reduction of deficits also raise questions. These issues show the limits of these measures when applied in times of high unemployment and the associated risks of launching a deflationary spiral and worsening the overall macroeconomic situation.

This paper was focused on the comparison of selected macroeconomic indicators across of new EMU member states and Germany in order to verify whether we could still talk about similar convergence trends among EMU countries in their economic development due to the crisis. The crisis period clearly revealed the asymmetries between countries. Especially the current situation on labour markets shows that national labour markets remain different. Unfavourable current situation tells us that countries should be more interested in eliminating existing imbalances and deficiencies that nowadays characterise labour markets in most new EMU members. It would also mean that EMU countries would get more close to a goal of being an optimal currency area.

The vector autoregression analysis verified the similarity of the countries' response to demand shock. The similar significant reaction was reported in the case of household consumption and investments in monitored countries. Contrary to unemployment reactions, we observed considerable differences among countries. It can imply that the unified fiscal policies or a coordination of national fiscal policies with the goal of similar macroeconomic stimulation would not lead to same results.

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References

- [1] Arfa, N.B. (2009). Analysis of shocks affecting Europe: EMU and some Central and Eastern acceding countries, *Panoeconomicus*, 1(2009): 21-38. DOI: 10.2298/PAN0901021B
- [2] Bayoumi, T. and Eichengreen, B. (1993). *Shocking aspects of European monetary unification, adjustment and growth In the European monetary union*. Cambridge Univ. Press, Cambridge/New York, Pp. 193–229.
- [3] Blanchard, O., Johnson, D.R. (2013). *Macroeconomics*, Sixth edition, Pearson education Inc.
- [4] Blanchard, O., Quah, D. (1989). The Dynamic effects of aggregate demand and supply disturbances, *American Economic Review*, 79(1989): 655-673.
- [5] Boone, L. (1997). Symmetry and asymmetry of supply and demand shocks In European Union. [Cepii N°1997: 3].
- [6] Boone, L., Maurel, M. (1998). Economic convergence of the CEECs with the EU, (Centre for economic policy discussion paper N°1998: 2180).
- [7] Boone, L. and Maurel, M. (1999). An Optimal currency area perspective of the EU enlargement to the CEECs. (Centre For economic policy discussion paper N°1999: 2199)
- [8] Fidrmuc, J. and Korhonen, I. (2003). Similarity of supply and demand shocks between the Euro Area and the CEECs, *Economic systems*, 27: 313-334. DOI: 10.1016/j.ecosys.2003.05.002
- [9] Frenkel, M., Nickel, Ch. and Schmidt, G. (1999). Some shocking aspects of EMU enlargement.
- [10] Gambetti, L. and Musso, A. (2012). Loan supply shocks and the business cycle, (ECB Working paper series, N°2012: 1469).
- [11] Korhonen, I. (2001). Some empirical tests on the integration of economic activity between the Euro Area and the accession countries, *The Economics of Transition*, 1: 17-196. DOI: 10.1111/1468-0351.00144
- [12] Krugman, P. and Wells, R. (2009). *Economics*, Second Edition, Worth Publisher, ISBN-13: 978-0-7167-7158-6.
- [13] Masson, P.R. (1999). Monetary and exchange rate policy of transition economies of Central and European countries after the launch of EMU (IMF Policy Discussion Paper N°1999: 5).

- [14] Nosáľová, O. (2011). Dopad krízy na štruktúrne zmeny v SR podľa zamestnanosti – pohľad na hospodárske sektory s dôrazom na odvetvia sekundárneho sektora, *Transfer inovácií*. 21:110 - 115.
- [15] Pentecôte, J.-S., Huchet-Bourdon, M. (2012). Revisiting the core – periphery view of EMU, *Economic Modelling*, 29(2012): 2382-2391. DOI: 10.1016/j.econmod.2012.06.036
- *** ECB (2014). Convergence Report. Available at: <https://www.ecb.europa.eu/pub/pdf/conrep/cr201406en.Pdf?C759d9b132af38d2cde1900f23c35ce9>, accessed December, 10, 2015.
- *** European Commission (2013). Ameco Database. Stock of Total Unemployed. Available At: http://ec.europa.eu/economy_finance/ameco/user/serie/selectserie.cfm, accessed December, 2, 2015.
- *** Eurostat database (2015). Quarterly data for GDP, consumption, investments, HICP and unemployment. Available at: <http://ec.europa.eu/eurostat/data/database>, accessed December, 11, 2015.
- *** Eurostat database (2015). Annual data for unemployment rates, quarterly data for job vacancy rates. Available at: <http://ec.europa.eu/eurostat/data/database>, accessed December, 11, 2015.
- *** Eurostat (2015). Statistics explained, national accounts and GDP. Available at: http://ec.europa.eu/eurostat/statistics-explained/index.php/national_accounts_and_gdp#developments_in_gdp, accessed December, 10, 2015.
- *** Eurostat (2015). Statistics explained, unemployment and beyond. Available at: http://ec.europa.eu/eurostat/statistics-explained/index.php/unemployment_and_beyond, accessed December, 2, 2015.

The Impact of Entrepreneurial Financial Activities on Financial Indicators: Evidence from All Companies Listed in Muscat Security Market

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Abstract

This paper aims to analysis the impact of entrepreneurial financial activities on financial indicators of all sectors as industrial, financial and services listed in Muscat Security Market from 2008 to 2014. The sample of 109 firms has been selected from a total population of 115 firms. The model of study consist of five main financial activities related to entrepreneurial activities as independent variables, which include output of employment and prices, oil and gas, public finance, money, banking and financial institutions, foreign trade and balance of payments wherein every activity is measured by three variables. The dependent variable is financial indicators consisting of market and profitability indicators. The results show there is a statistical significant impact of three entrepreneurial activities of output of employment and prices, money, banking and financial institutions, foreign trade and balance of payments on market indicator and in all entrepreneurial activities on profitability indicator. Researchers strongly recommends to adoption of entrepreneurship in the government's planning and long term strategy at the country level and special attention for all economic activities that contribute to the promotion of entrepreneurial concept directly or indirectly through the influence in all economic sectors and this interaction could add effective economic value that will reflect positively on economic growth.

Keywords: entrepreneurial activity, financial indicators, Muscat security market.

JEL Classification: L26, L25, D53.

1. Introduction

The evolution of the global financial markets and the increasing competition between markets and economies of the countries lead to the phenomenon of globalization, which indicated benefit from the expertise and knowledge to improve the performance of economic activities and when increasing the intensity of competition between economic markets lead to the need for attention to the so-called entrepreneurial activities. Review of the previous literature Rajshekhar *et al.* (2012) and Acs (2004) has established that the entrepreneurial activities are an important focus area in any country's economy as it contributes to economic growth both internally and externally by creating new jobs and new markets. This also results the entry of new firms in the market which is an indicator that entrepreneurial concept is work efficiently and effectively in the economy. When we think of new products, markets, technology, management techniques and strategy, effective production, and employment optimization are all manifestation of innovation and entrepreneurial activities that contribute to the competition on the performance of firms. Entrepreneurial activities also contribute to increased domestic and foreign investment and increase of foreign capital in the country. (Carree 2002)

The modification and improvement in the entrepreneurial environment of the country's economy must be synchronized with the development of legislation and economic policies and the removal of obstacles in the development process to fit into the economic policy and that branch of fiscal and monetary policy in the country, Lundström and Stevenson (2005). The entrepreneurial activities is also referred to as social economy, which contributes to seize the investment opportunities in the community and in the development of new projects in the market to solve the economic problems, therefore entrepreneurs are persons that creates new ideas and develop them into the possibility of investment opportunity which tolerate manifestations of creativity in light of the current economy, Simsek *et al.* (2009). They create value in the firms reflected in the entrepreneurial concept which can be expressed in various economic activities that contribute to the strengthening of the leading performance, as the integrity of the federation of economic activities with each other to create the concept of entrepreneurship which may be one of the economic activities that exercise the greatest role in this concept. Many economies of the countries are working on removing obstacles to

entrepreneurial activities which contribute to raising the awareness of entrepreneurship leading to better employment and resource productivity in the economy, Caselli and Gennaioli (2013).

This study aims to explain the impact of five of entrepreneurial financial and economic activities on financial indicators listed in Muscat security market in sultanate of Oman. These economic activities form the basic composition of entrepreneurial Activities at the community level leading to the creation of new jobs and the creation of new firms operating under the umbrella of the concept of entrepreneurial and contribute to the improvement of financial indicators for the firms. The good performance in the activities of the country's economy may be reflected on the financial indicators for firms that operate in the competitive market. This study is organized as follow: Theoretical Framework, research method, research findings and conclusion.

Conclusion

This paper aims to investigate the impact of entrepreneurial financial activities on financial indicators in all sectors listed in Muscat Security Market. The model of study consist of five main financial activities related to entrepreneurial as independent variables include output of employment and prices, oil and gas, public finance, money, banking and financial institutions, foreign trade and balance of payments every activity measured by three variables. The dependent variable is financial indicators consisting of market indicators and profitability indicators. The entire population of this study consists of 115 firms from all sectors out of which a sample of 109 firms was selected with the exception of only 6 firms whose data was not available for the period of 2008-2014. The study used correlation and regression matrix to test the hypotheses. The results show there is a statistical significant impact of entrepreneurial financial activities on market capitalization on the following: output of employment and prices variable of financial sector, foreign trade and balance of payments variable of industrial sector and output of employment and prices, banking and financial institutions and foreign trade and balance of payments variables of service sector. Also, there is a significant impact of entrepreneurial financial activities on return on assets on the following: output of employment and prices variable, money, banking and financial institutions variable and foreign trade and balance of payments variable of financial sector, output of employment and prices variable and public finance variable of industrial sector, oil and gas variable, public finance variable, money, banking and financial institutions variable of service sector. Researchers strongly recommends to adoption of entrepreneurship in the government's planning and long term strategy at the country level and special attention for all economic activities that contribute to the promotion of entrepreneurial concept directly or indirectly through the influence in all economic sectors and this interaction could add effective economic value that will reflect positively on economic growth. Review is also recommended of all the financial polices to promote and increase investment and competitiveness in the market and that can be the reference for the creation of effective entrepreneurial opportunities in the market. Therefore, further research is required. For example, other variables testing financial and market performance in Oman could be done, as this issue has not been researched in depth. Another study area of interest would be exploring the possible reasons explaining the differences between sectors concerning the relationship between entrepreneurial activities and financial and market performance.

References

- [1] Acs, Z., Audretsch, P., Braunerhjæl, Carlsson, B. (2004). The Knowledge Filter and Entrepreneurship in Endogenous Growth. Discussion paper on Entrepreneurship growth and Public Policy. 0805, Max Planck Institute, Jena.
- [2] Antoncic, B. and Hisrich, R. (2004). Corporate Entrepreneurship Contingencies and Organizational Wealth Creation. *Journal of Management Development*, 23(6): 518-550.
- [3] Amorós, J., Cristóbal, F., Juan, T. (2011). Quantifying the relationship between entrepreneurship and competitiveness development stages in Latin America, *Int Entrep Manag J.*, 7. DOI 10.1007/s11365-010-0165-9
- [4] Bloom, N., Eifert, B., Mahajan, A., McKenzie, D. and Roberts, J. (2013). Does Management Matter? Evidence from India, *The Quarterly Journal of Economics*, 128: 1-51.
- [5] Brinkman, E. (2000). Research about Success and Fail Factors of Starters, Master Thesis, RUG.
- [6] Buera, F., Joseph, P., Yongseok, S. (2015). Entrepreneurship and Financial Frictions: A Macro-Development Perspective, working paper, *Federal Reserve Bank of Chicago*, 1-39.
- [7] Carree, M., Van Stel, A., Thurik, R., Wennekers, S. (2002). Economic Development and Business Ownership: An Analysis Using Data of 23 OECD countries in the period 1976–1996. *Small Business Economics*, 19(3): 271–290.
- [8] Caselli, F., Gennaioli, N. (2013). Dynastic Management, *Economic Inquiry*, 51: 971- 996.
- [9] Carree, M. and Thurik, R. (2003). The Impact of Entrepreneurship on Economic Growth, In D. Audretsch and Z. J. Acs (eds). *Handbook of Entrepreneurship Research*. Dordrecht: Kluwer-Academic Publishers, 437–471.
- [10] Dess, G. and Lumpkin, G. (2005). The role of entrepreneurial orientation in stimulating effective corporate entrepreneurship, *Academy of Management Executive*, 19(1): 147-156.
- [11] Dennis, J. and Andrew, W., (2012). Entrepreneurial Impact of Turbulence in Interest Rates, Inflation Rates, and Exchange Rates, *Quarterly Review of Entrepreneurship*, 2 (12): 71-82.
- [12] Fox J. (2008). Organizational Entrepreneurship and the Organizational Performance, Linkage in University Extension, *USASBE Proceedings* - Page 0429, 1-31

- [13] Gree, K. (2011). Corporate Entrepreneurship and Value Creation for Stockholders, *Frontiers of Entrepreneurship Research*, 31(17): 582-591.
 - [14] Hoffmann, M. (2005). Proprietary Income, Entrepreneurial Risk, and the Predictability of U.S. Stock Returns, University of Dortmund & CESifo, 475: 1-41.
 - [15] Justo, R., Julio, O., De Castro (2008). Indicators of Entrepreneurship Activity: Some Methodological Contributions, *International Journal Entrepreneurship and Small Business*, 6(4): 604- 621.
 - [16] Karacaoglu, K., Ali, B., Firat, B. (2013). The Impact of Corporate Entrepreneurship on Firms' Financial Performance: Evidence from Istanbul Stock Exchange Firms, *International Business Research*; 6 (1): 163-175.
 - [17] Kirzner, I. (1973). *Competition and Entrepreneurship*. University of Chicago Press.
 - [18] Lundström, A., Stevenson, L. (2005). *Entrepreneurship Policy – Theory and Practices*, ISEN International Studies in entrepreneurship Springer.
 - [19] Lumpkin, G., Cogliser, C., Schneider, D. (2009). Understanding and Measuring Autonomy: An Entrepreneurial Orientation Perspective. *Entrepreneurship Theory and Practice*, 33(1): 47-69. <http://dx.doi.org/10.1111/j.1540-6520.2008.00280.x>
 - [20] Mrabet, A., Ellouze, A. (2014). Entrepreneurship and Economic Growth: Meta -Analysis *International Journal of Research in Humanities, Arts and Literature*, 2 (5): 57-72.
 - [21] Njeru, A., Gregory, S. and Namusonge, J. (2012). Size as a Determinant of Choice of Source of Entrepreneurial Finance for Small and Medium Sized Enterprises in Thika District, *International Journal of Business and Social Science* 3 (16) [Special Issue – August 2012]
 - [22] Özdemirci, N., (2014). The Empirical Link between Environmental Conditions, Organizational Culture, Corporate Entrepreneurship and Performance: The Mediating Role of Corporate Entrepreneurship, *International Journal of Business and Social Science*, 5 (2): 264-276.
 - [23] Rajshekhar, G., Todd, P., Johnston, W. and Granot, E. (2012). Entrepreneurship, Muddling Through, and Indian Internet-neabled SMEs, *Journal of Business Research*, 65: 740-744.
 - [24] Scholmana, G., André, V. and Roy, T. (2014). The Relationship Between Entrepreneurial Activity, the Business Cycle and Economic Openness, Working Paper, reference H201218, Analysis of Entrepreneurship and SMEs www.entrepreneurship-sme.eu
 - [25] Simsek, Z., Lubatkin, M., Veiga, J., Dino R. (2009). The Role of an Entrepreneurially Alert Information System in Promoting Corporate Entrepreneurship, *Journal of Business Research*, 62: 810-817. <http://dx.doi.org/10.1016/j.jbusres.2008.03.002>
- *** Annul Statistical Bulletin (2014). Central Bank of Oman, Retrieved 16-09-2014, AM 11:00 from <http://www.cbo-oman.org/>

Relevance of Outcomes Implementation of Specific Economic and Social Analyses of Mortality for Modification of Avoidable Mortality Concepts

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Abstract:

Health disparities in a country can severely affect the overall health situation of its inhabitants. Many programs of the European Union appeal at reducing these disparities as well as disparities between the individual countries. As a result, mortality is the commonly used as a demographic indicator concerning health, as it provides, coupled with morbidity, an overview of significant factors affecting population health. Our study focuses on studying mortality and avoidable mortality using data provided by relevant health institution in the form of anonymized death certificates to assess the overall health status of the Slovak population and the quality of healthcare available. The main aim of this study is to provide an overview of the current situation concerning mortality in individual regions and the comparison of these results with the relevant international avoidable mortality methodology. Thus we attempt to identify the specifics of the local situation, facilitating a future attempt at formulating a region specific methodology, required to form effective health policies to help eliminate the existing disparities, provide a basis for evaluating the effectiveness of various social programs and activities and enabling relevant international comparisons.

Keywords: morbidity, mortality, social and economic status, aging process, marginalized and segregated Roma communities, regional disparity of mortality.

JEL Classification: I10, I14, I19.

1. Introduction

Experts in the field of demography predict that by 2025 a third of Europeans will belong to the 60 or over age group and projections for 2050 suggest a further increase up to 50% (Phellas 2013). Population ageing is a serious consequence of the current demographic trends in our country as well. The ageing index (number of persons aged 65 years or over per one hundred persons under 15 years old) in Slovakia increased from 60.80 to 85.51 between years 2001 and 2012. The economy of our state and the related health and social processes have been extremely deeply impacted by the ongoing globalization and the global crisis, which exposed the so-called "unsustainability" of various concepts with elements of minimal state involvement. As global assessment, the level of health in the EU has been constantly improving over the last decade (Zelený and Bencko 2015). If we look closely at the relevant indicators, results from many analyses show an increase in life expectancy in the EU countries, however constantly increasing disparities between and within individual countries are emerging (Spoerri *et al.* 2014, Gavurová and Šoltés 2013, Gavurová and Vagašová 2015). One of the key demographic indicators is mortality. Along with fertility, it constitutes an essential part of demographic reproduction of the population (Hoffmann 2013). Mortality and morbidity provide significant information about the health situation of a country's population. Therefore, the focus of this study will primarily be the analysis of general mortality and its selected causal paths.

Conclusion

EU has been constantly stressing the urgency of addressing the issues focused on reducing inequalities in health area in the recent decades. The issue is too complex and the current status indicates many system failures. Also numerous EU programs appeal to the necessity of solving problems focused on reducing inequalities in the health area. Elimination of disparities requires coordinated actions between the public health care system and other policies that affect health, including social protection, education and environment. With the results of our analyses we would like to point out that the informative value of important indicator - the mortality rate, is being increased by taking into account demographic characteristics and indicators of use of health care services, as declared in major foreign scientific studies. The significance of mortality analyses lies also in the causal evaluation of morbidity development, because morbidity can be connected to effective prevention programs. Relevant information for these programs can be supplied by multidimensional analyses of mortality. The economic burden of care for patients with diagnoses that have the highest rates of amenable mortality is huge, annually representing several tens of billions of dollars (e.g., in the US treatment of patients with CVD). There is still an absence of quality economic analyses of treatment and after-care of patients with those diagnoses in the case of Slovakia. Many negative social consequences are incalculable, especially the problems of families with immobilized disabled. Many developed countries declare in their scientific studies significant effectiveness of investments in the prevention of acute health care, improving population health compared to the costs of treating insufficiently or late-treated population. As such, countries face a big challenge to find a way of using various policy tools to increase the effectiveness of their health care system while eliminating health inequalities. Therefore, it is necessary to constantly reflect on the analysis of the current state of development of mortality in a global, European, as well as national context and to evaluate the efficiency and effectiveness of all supporting activities of our society.

Acknowledgements

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References

- [1] Adler, Nancy, E.A. (2001). Consideration of Multiple Pathways from Socioeconomic Status to Health. Income, Socioeconomic Status and Health: Exploring the Relationship. James A. Auerbach and Barbara K. Krimgold (eds). Washington, DC, National Policy Association et al., pp. 56–66.
- [2] Balsa, A.I. et al. (2014). Relative Deprivation and Risky Behaviors, *Journal of Human Resources*, 49(2):446-471. <http://dx.doi.org/10.1353/jhr.2014.0011>
- [3] Baraniak, A. and Sheffield, D. (2011). The efficacy of psychologically based interventions to improve anxiety, depression and quality of life, in COPD: A systematic review and meta-analysis. *Patient Education and Counseling*, 83(1): 29-36. <http://dx.doi.org/10.1016/j.pec.2010.04.010>
- [4] Brozman, M. (2006). Úvod do problematiky cievných mozgových ochorení, *Via practica*, 5: 222 – 228.
- [5] Carreras, M. et al. (2010). Estimates of patient costs related with population morbidity: can indirect costs affect the results?, *European Journal of Health Economics*, 12(4): 289-95. <http://dx.doi.org/10.1007/s10198-010-0227-5>
- [6] Caselli, G., and Lopez, A.D. (1996). Health and Mortality among Elderly Populations, *International Studies in Demography*. Oxford: Clarendon Press, pp. 87–111.
- [7] Clarke, P., Latham, K. (2014). Life course health and socioeconomic profiles of Americans aging with disability, *Disability and Health Journal*, 7(1): 15-23. <http://dx.doi.org/10.1016/j.dhjo.2013.08.008>
- [8] Della Bella S, et al. (2011). A Comparative Analysis of Inequality in Health across Europe, *Sociological Research Online*, 16(4). <http://dx.doi.org/10.5153/sro.2492>
- [9] Gavurová, B. and Šoltés, V. (2013). Slovak Healthcare Effectiveness - Analysis of Comparative Aspects and Identification of Development Opportunities. Košice: Technical University of Košice, Slovakia.
- [10] Gavurová, B., Šoltés, V., Kafková, K., Černý, L. (2013). Vybrané aspekty efektívnosti slovenského zdravotníctva. Jednodňová zdravotná starostlivosť a jej rozvoj v podmienkach Slovenskej republiky. Košice: EkF TUKE.

- [11] Gavurová, B., Šoltés, V. and Šoltés, M. (2014). Meranie zdravia a zdravotných rizík vo vybraných rómskych osadách na Slovensku – fakty a reflexie, in: Nerovnosť a chudoba v Európskej únii a na Slovensku 2: Zborník statí z 2. medzinárodnej vedeckej konferencie: Košice, 22.-24 Októbra 2014. Košice: TU, pp. 188-201.
- [12] Gay, J.G. *et al.* (2011). Mortality Amenable to Health Care in 31 OECD Countries: Estimates and Methodological Issues. OECD Health Working Papers. No. 55. OECD Publishing. <http://dx.doi.org/10.1787/5kqj35f9f8s2-en>
- [13] Gavurová, B., Vagašová, T. (2015). The Significance of Amenable Mortality Quantification for Financing the Health System in Slovakia, *Procedia Economics and Finance*, 32: 77-86. [http://dx.doi.org/10.1016/s2212-5671\(15\)01367-2](http://dx.doi.org/10.1016/s2212-5671(15)01367-2)
- [14] Hoffmann, R. (2013). Socioeconomic Differences in Old Age Mortality. The Springer Series on Demographic Methods and Population Analysis. Springer.
- [15] Holland, W. *et al.* (1997). European Community atlas of 'avoidable death' 1985-89. Oxford: Oxford University Press.
- [16] Charafeddine, R. *et al.* (2014) Using mortality follow-up of surveys to estimate social inequalities in healthy life years, *Population Health Metrics*, 12(1): 13. <http://dx.doi.org/10.1186/1478-7954-12-13>
- [17] Christ, S.L. *et al.* (2012). The effects of a psychosocial dimension of socioeconomic position on survival: occupational prestige and mortality among US working adults, *Sociology of Health & Illness*, 34(7): 1103-17. <http://dx.doi.org/10.1111/j.1467-9566.2012.01456.x>
- [18] Kalwij, A.S. (2014). An empirical analysis of the importance of controlling for unobserved heterogeneity when estimating the income-mortality gradient, *Demografic Research*, 31(30): 913-39. <http://dx.doi.org/10.4054/demres.2014.31.30>
- [19] Kinge, J. M. and Kornstad, T. (2014). Assimilation effects on infant mortality among immigrants in Norway: Does maternal source country matter?, *Demografic Research*, 31: 779-812. <http://dx.doi.org/10.4054/demres.2014.31.26>
- [20] Kužela, L. (2013). Choroby pečene. Univerzita Komenského. https://www.fmed.uniba.sk/fileadmin/user_upload/editors/akademicka_kniznica/dokumenty_PDF/Elektronicke_knihy_LF/Choroby_pecene.pdf.
- [21] Määtänen, N. and Alho, J. (2014). Response to updated mortality forecasts in life cycle saving and labor supply, *International Journal of Forecasting*, 30(4): 1120-1127. <http://dx.doi.org/10.1016/j.ijforecast.2014.02.010>
- [22] Mackenbach, J.P., Bouvier-Colle, M.H. and Jougl, E. Avoidable" mortality and health services: a review of aggregate data studies, *Journal of Epidemiology and Community Health*, 44(2): 106-11. <http://dx.doi.org/10.1136/jech.44.2.106>
- [23] Matlovičová, K., Matlovič, R., Mušinka, A. and Židová, A. (2012). The Roma population in Slovakia. Basic characteristics of the Roma population with emphasis on the spatial aspects of its differentiation In: Penczes, J., Radics, Z. (Eds.): Roma popuation on the peripheries of the Visegrad countries. Spatial trends and social challenges. Debrecen; pp. 77-104.
- [24] Mészáros, J. and Burcin, B. (2008). Vývoj odvrátiteľnej úmrtnosti na Slovensku. *Slovenská štatistika a demografia*, 18(2-3): 24-39.
- [25] Meslé, F. and Vallin, J. (2002). Mortality in Europe: the Divergence between East and West. *Population*, 57(1): 157–197. <http://dx.doi.org/10.3917/pope.201.0157>
- [26] Meslé, F. (2004). Mortality in Central and Eastern Europe: long-term trends and recent upturns, *Demographic research Special Collection*, pp. 45–70. <http://dx.doi.org/10.4054/DemRes.2004.S2.3>
- [27] Muller, H.P. (1992) Sozialstruktur und Lebensstile. Der neuere theoretische Diskurs über soziale Ungleichheit. Frankfurt am Main: Suhrkamp.
- [28] Newey, C.E., Nolte, M., McKee, M. and Mossialos, E. (2004). Avoidable Mortality in the Enlarged European Union. Paris: Institut des Sciences de la Santé.
- [29] Nolte, E., McKee, M. (2008). Measuring the Health of Nations: Updating an Earlier Analysis, *Health Affairs*, 27(1): 58-71. <http://dx.doi.org/10.1377/hlthaff.27.1.58>
- [30] Phellas, C. (2013). Aging in European Societies Healthy Aging in Europe. Springer.
- [31] Plug, I., Hoffman, R. and Mackenbach, J. (2011). AMIEHS. Avoidable mortality in the European Union: Towards better indicators for the effectiveness of health systems. EU Public Health Program 2007206.

- [32] Popper, M., Szeghy, P., Šarkozy, Š. (2007) Zdravotná starostlivosť v sociálne vylúčených rómskych komunitách. Madrid: Fundación Secretariado Gitano (FSG), Ahijones, s/n – 28018; 2007.
- [33] Popper, *et al.* (2009) Rómska populácia a zdravie: Analýza situácie na Slovensku. 1. vyd. Partners for Democratic Change Slovakia.
- [34] Rusnáková, J. (2011) Voľby životných stratégií obyvateľov chudobných a sociálne vylúčených rómskych osídlení, Životné stratégie obyvateľov rómskych osídlení. Nitra: UKF, 2011, pp. 41-95.
- [35] Rusnáková, J., Rochovská, A. 2014. Segregácia obyvateľov marginalizovaných rómskych komunít, chudoba a znevýhodnenia súvisiace s priestorovým vylúčením, *Geographia Cassoviensis*, 8(2): 162-172.
- [36] Rusnáková, J., Pollák, P. (2012) Sociálna práca v marginalizovaných rómskych komunitách. In: Metódy sociálnej práce v praxi. Bratislava: Vysoká škola zdravotníctva a sociálnej práce sv. Alžbety, pp. 250-285.
- [37] Rutstein, D.D. *et al.* (1976). Measuring the quality of medical care. *New England Journal of Medicine*, 582-88.
- [38] Seabrook, J. A., Avison, W.R. (2012). Socioeconomic Status and Cumulative Disadvantage Processes across the Life Course: Implications for Health Outcomes, *Canadian of Sociology-Revue Canadienne de Sociologie*, 49(1): 50-68. <http://dx.doi.org/10.1111/j.1755-618x.2011.01280.x>
- [39] Smith, J.P. (1998). Socioeconomic Status and Health 98–07. Labor&Population Reprint Series. 1998.
- [40] Smith, J.P. (1999). Healthy Bodies and Thick Wallets: the Dual Relation between Health and Economic Status, *Journal of Economic Perspectives*, 13(2):145–66.
- [41] Smith, G. D., Shipley, M.J. and Rose, G. (1990). Magnitude and Causes of Socioeconomic Differentials in Mortality: Further Evidence from the Whitehall Study, *Journal of Epidemiology and Community Health*, 44(4): 265–70.
- [42] Spoerri, A. *et al.* (2014). Individual and spousal education, mortality and life expectancy in Switzerland: a national cohort study, *Journal of Epidemiology and Community Health*, 68(9): 804-10. <http://dx.doi.org/10.1136/jech-2013-203714>
- [43] Šoltés, V., Gavurová, B. (2014). The Functionality Comparison of the Health Care Systems by the Analytical Hierarchy Process Method, *E+M Ekonomie a Management*, 17(3):100-118. <http://dx.doi.org/10.15240/tul/001/2014-3-009>
- [44] Soltes, M., Gavurova, B. (2015). Quantification and comparison of avoidable mortality – causal relations and modification of concepts, *Technological and Economic Development of Economy*, 21(6): 917-938. <http://dx.doi.org/10.3846/20294913.2015.1106421>
- [45] Šoltés, V., Šoltés, M. and Gavurová, B. (2014=). Vývoj mortality v regiónoch s vysokou koncentráciou rómskeho obyvateľstva. In: Nerovnosť a chudoba v Európskej únii a na Slovensku 2: Zborník statí z 2. medzinárodnej vedeckej konferencie: Košice, 22.-24. Októbra 2014, TU, pp. 202-214.
- [46] Tobias, M. and Yeh, L. (2009). How much does health care contribute to health gain and to health inequality? Trends in amenable mortality in New Zealand 1981-2004, *Australia and NZ Public Health*, 33(1):70-78. <http://dx.doi.org/10.1111/j.1753-6405.2009.00342.x>
- [47] Valkonen, T. (2001). Life Expectancy and Adult Mortality in Industrialized Countries, *International Encyclopedia of the Social & Behavioral Sciences*, 8822–27. <http://dx.doi.org/10.1016/b0-08-043076-7/02124-0>
- [48] Winfried, H. and Muller, H. (2002). Regionale Mortalität in Rheinland-Pfalz unter besonderer Berücksichtigung soziostruktureller Indikatoren. Regionale Sterblichkeit in Deutschland. Augsburg, Gottingen: WiSoMed.
- [49] Westerling, R. (2001). Commentary: Evaluating avoidable mortality in developing countries – an important issue for public health. *International Journal of Epidemiology*, 30(5): 973-75. <http://dx.doi.org/10.1093/ije/30.5.973>
- [50] Zelený, T. and Bencko, V. (2015). Healthcare System Financing and Profits: All That Glitters is Not Gold, *Cent Eur J Public Health*, 23(1): 3-7.

Peculiarities of Improving Internal Financial Control in the Russian Corporations

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Abstract

The problem of the need for internal financial control is common to businesses of all types and volumes, but is especially acute in corporations due to the fact that in our time they were able to achieve such a scale in which the collapse of a corporate system may have an impact on the economy of many countries. In addition, at the moment the relevance of the chosen topic is determined by the transition to the reporting tool that is new for Russian economic agents – International Financial Reporting Standards (IFRS), as well as Russia's accession to the World Trade Organization (WTO) and intensification of globalization processes.

Together, this makes it possible to integrate the Russian economy into the new systems, including international experience in their practice, taking into account national specificities. However, scientific research pays not enough attention to the disclosure of the principles and mechanisms of internal corporate financial control in a market economy, which is capable of operating in the management system of Russian corporations. In addition, the lack of systematization of existing knowledge and methodological approaches is observed, which determined the choice of the topic, goal and objectives of the study, its logic and structure. The article examines the methods and elements of financial control, financial fraud and ways to identify and prevent it. The article also discloses principles of financial control systems and proposes measures aimed at creating an effective system of internal financial control in the Russian corporations.

Keywords: internal financial control, corporation, financial fraud, effective management system.

JEL Classification: M.

1. Introduction

Level of bookkeeping, fiscal and tax accounting established in the country plays one of the most important roles in ensuring the quality of financial control. Accounting documentation can be called the main object of financial control. Level of organization and types of control, as well as its forms and methods, depend on how successful and effective the financial control will be. But ignoring evidence of the need for an adequate system of corporate management, it is often created in the companies only in cases where the interests of the shareholders disagree (thus creating a mechanism that allows each shareholder to track the real state of affairs in the corporation and leaves no possibility of misinformation of the interested persons with false data), or when the organization needs to attract investment. The key to success of any business is access to investment capital, but investors are unlikely to invest heavily in the corporation that lacks an effective management system and control over its activities. Before making an investment decision, any investor requires to provide for review the complete information about the state of affairs in the company. (Pike and Neale 2006)

Before increasing their contributions to the Russian companies, domestic and foreign investors raise the question of substantial improvement of corporate management. They are ready to buy stocks in the companies that are able to create an effective corporate management system, understandable to investors, because it is seen as a competitive advantage in business, as the company can establish clear guidelines for the development, and a sense of responsibility is formed through the entire management chain. There are always two equally important objectives in the course of the financial activities of any corporation (Brealey 2008). It is necessary to attract resources or have sufficient own funds to carry out economic activities. It is necessary to properly allocate resources received.

Various experts, when evaluating Russian companies, make forecasts that companies can raise their share price by at least 20% exclusively by improving the system of corporate management. In other words, an effective and well thought-out system makes it possible not only to use the funds of existing shareholders with maximum efficiency, but also to attract new investors and resources they possess (Adizes 2012).

Over the past decade, the importance of daily economics control (the one aimed at operations within the corporation from individual entrepreneurs and owners) has been objectively increasing in the Russian Federation. But despite such a significant change in the system of financial control, it can be concluded that, unfortunately, a common understanding of the financial control system is yet to be developed, and its basic principles of construction are yet to be formed. There are no common organizational and methodological foundations of control or common concept of its reforming in Russia either. The concept of external financial control is settled at the legislative level in one way or another, while the internal control is only briefly covered by individual legislation norms, and its regulation is by and large remains at the local level (Belobzhetskiy 1999).

Conclusion

Based on the shortcomings of domestic research in the field of financial control (focus on relatively small businesses, compilation of the Western experience without taking into account the specifics of Russian business), the authors made the following conclusions.

Internal financial control in the corporation, being a substitution of financial control, is one of the ways to smooth out the asymmetry of internal information and to deepen understanding of risk areas, identifying deviations related to mistakes, intentional and unintentional violations or ineffective approach to operation. As a result, owners and managers can adopt the most appropriate management decisions, thereby increasing comfort for potential investors who are concerned about the effectiveness of their own funds. Internal financial control allows to continuously verify and confirm or deny the authenticity and legality of business transactions, tax and accounting data, as well as to analyze the economic feasibility of the financial and economic activity of the enterprise in order to develop recommendations to improve its effectiveness.

The study of domestic legal requirements for the organization and implementation of internal corporate financial control led to the conclusion that the reformation of laws is required today, with the aim not only to oblige the corporations to carry out internal financial control, but also to identify the main requirements to the procedure and methods of its implementation.

Research of the organization of internal corporate financial control by Russian and foreign corporations helped compile the most effective methods of implementation of this type of control and form a list of provisions that could be considered «best practices» and become a point of comparison to determine the effectiveness of control activities.

Thus, the authors initiated a profound and detailed study of the internal control system in Russian corporations, which opens up opportunities for further research in this direction, based on domestic and foreign experience, given the specificity of Russian conditions and in accordance with the daily changing economic and political realities.

References

- [1] Adizes, I.K. (2012). Styles of management. Effective and ineffective. Moscow: Alpina Publisher, pp: 200.
- [2] Adizes, I.K. (2008). Managing the corporation lifecycle. St Petersburg: Peter, pp: 384.
- [3] Belobzhetskiy, I.A. (1999). Financial control and new economic mechanism. Moscow: Finance and Statistics.
- [4] Binkevich, T.V. (2009). Internal financial control in the group of small enterprises of the holding structure, thesis of Candidate of Economy: 08.00.10, Moscow.
- [5] Bolshov, A.A. (2010). Improvement of the system of internal (corporate) financial control in enterprises, thesis of Candidate of Economy: 08.00.10, Moscow.
- [6] Brealey, R. and Myers, S. (2008). Principles of Corporate Finance. Moscow: Olymp-Business.
- [7] Brovkina, N.D. (2011). Basics of financial control: study guide. Moscow: Magister.
- [8] Hurwicz, L. and Reiter S. (2008). Designing Economic Mechanisms. Cambridge: Cambridge University Press.
- [9] Danilenko, N.I. (2015). Departmental (internal) financial control and audit: effective management tool. *Accounting in Budgetary and Noncommercial Organizations*, 18(378): 17-21.
- [10] Zhukov, V.N. (2015). Information strategies in the internal financial control of corporations. *Accounting*, 9: 89-92.
- [11] Zueva, I.A. (2010). Current development trends in the system of financial control in Russia. *Financial Bulletin: Finance, Taxes, Insurance, Accounting*, 2: 3-7.
- [12] Karmanova, T.E. (2002). Corporation as a market institution, thesis of Candidate of Economic Sciences, Lomonosov Moscow State University (MGU), Moscow.
- [13] Kidwell, D.S. (2000). Financial Institutions, Markets, and Money. St Petersburg: Peter.
- [14] Kokoreva, M.S., Ivashkovskaya, I.V., Stepanova, A.N. and Grigorieva, S.A. (2013). Corporate financial solutions. Empirical analysis of Russian companies (corporate finance solutions in emerging capital markets): Monograph. Moscow: NIC INFRA-M.
- [15] Kulikova, L.I. and Satdarova, D.R. (2015). Internal control as a tool to prevent the falsification of financial statements. In: Formation of economic potential of business entities: problems, prospects, accounting and analytical support. Proceedings of the V International Conference, pp. 448-455.

- [16] Makarenko, A.A. (2007). Corporate financial policy as a tool of financial management, thesis of Candidate of Economic Sciences, Moscow.
- [17] Nekrasov, A.S. (2015). Internal control as a basis for financial control system. *Financial Law*, 10: 8-12.
- [18] Pavlova, Yu.A. (2010). Financial control, its forms and characteristics, main tasks of internal control. *Accounting and Statistics*, 17: 40-45.
- [19] Pike, R. and Neale, B. (2006). Corporate Finance and Investment. Series: Academy of Finance. St. Petersburg: Piter.
- [20] Tolkacheva, O.P. (2015). Internal financial control in the system of economic security of the business entity. *International Scientific Review*, 8(9): 37-38.
- [21] Fayantseva, E.Yu. (2014). Internal control as a method of managing financial stability of the company in terms of economic instability. *Bulletin of the University of Finance*, 3(81): 48-56.

Status of Foreign Direct Investments and their Relationship to Selected Economic Indicator of the Sustainable Development in the Slovak Republic – Localization Factors of Foreign Direct Investment Allocation and their Spatial Differentiation

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Abstract:

The aim of this article is to evaluate the economic effects of management of FDI in correlation with regional development. A methodology was used to identify a complex relevant indicator of development that is the amount of foreign direct investments flowing to the region on the NUTS III level, was applied for the evaluation of the economic status of regions and their underdevelopment. Another part of the analysis was the identification of the correlation between the FDI in the region and the sustainability of the development expressed by the regional GDP per capita. In the majority of regions, the correlation between the amount of the FDI and the sustainability of the development expressed by the regional GDP per capita was confirmed. At the same time, it is possible to identify a significant economic divergence of regions.

Keywords: economic growth, foreign direct investment/s (FDI), regional GDP.

JEL Classification: O4, R5, M20.

1. Introduction

Most recent theories studying economic growth focus on the correlation between economic growth and the state of domestic technology in relation to the rest of the world. The degree of country's economic growth is explained as a "catch-up" process in the light of the technological level of the host country. The model of economic diffusion cites the degree of economic growth of the underdeveloped countries as depending on the degree of reception and implementation of new technologies already used by foreign companies. According to the neoclassical model of Trevor Swan and Robert Solow (authors of the theory of Absolute Convergence), the 1987 Nobel Prize laureates, underdeveloped countries should grow faster compared to the developed ones. This contrasts with Lenin's theory of imperialism stating that rich countries grow at the expense of poor countries. On the other hand, the Solow-Swan model (Solow 1956, Swan 1956) allows the explanation of the growing international differences conditioned by the convergence, in which economic growth is dependent on other parameters – like the amount of savings that is higher in rich countries when compared to the poorer ones. This means that rich countries converge to a different point than poor countries and thus are able to grow faster. The convergence should be valid within the country or among countries with approximately the same economic parameters, like the USA or OECD states (Adamišin 2008).

Other academic studies also claim that internal investment has made an important and significant impact on the economic growth in the recipient countries. For instance, Driffield (2001), Liu *et al.* (2000) and Cantwell *et al.* (2001) all found statistically significant spillovers in the United Kingdom, as did Chuang and Lin (1999), Dimelis and Louri (2002), Lipsey and Sjöholm (2001), Asaturov, Teplova and Hartwell (2015) in their studies of Greece, Taiwan, Indonesia and the Central and Eastern European region, respectively. Similar results are reported by Blomström and Wolff (1994), who aimed to determine the size of these effects by exploring whether the spillovers in the Mexican manufacturing sector were large enough to help Mexican firms converge toward US productivity levels during the period of 1965-1982. Their answer is affirmative: foreign presence seems to have had a significant positive impact on the rates of growth of local productivity (OECD 2002, Blomström, Fors and Lipsey 1997).

The aim of this article is to evaluate the economic effects of FDI management in correlation with regional development.

Conclusion

The differentiation of regional differences is often the result of different localization assumptions for specific economic activities that define a certain dimension of requirements with subsequent adaptability in individual regions. Regions are able to absorb these requirements in various degrees and create an environment for a given economic activity. As problematic regions seem to be regions of mostly industrial character, which used to be wealthy, but their structure in the context of economic transformation was viewed as problematic from the aspect of adaptability. Low competitiveness of regions can be considered to be the major determinant of spatial differentiation of society and economic structures. This is the result of the interaction of a wide range of factors: from the troubled sector structure, lack of innovation capacity, quality of population potential to the absence of inter-market environment and centralistic way of managing of the companies (Slavík, Grác and Klobučník 2011).

Foreign direct investment has its own purpose particularly in local and regional development. Their positive impact is reflected in both the local and national level. They are a means of ensuring the transfer of technology, increasing employment and also they contribute to improving the quality of the workforce. Foreign direct investment is very important for regions and currently due to concerns about the loss of the relevant investor is the concept of "After Care" at the forefront, which is a kind of care of the investor operating in the given region. The most important tools in caring about investor include promoting cooperation with local and regional businesses, increasing the subcontracts, support for research and development, assistance in solving the administrative problems, increasing comfort of the investors in the social sphere, assistance in the development of human resources, support of the production capacity expansion (Ježková and Ježek 2011).

The economic policy of many countries including Slovakia is inclined to actively support investors through investment incentives. Although the international agreements in principle does not allow discrimination against foreign or domestic investors, the difference in treatment often results from the set of criteria that an investor must meet in order to get these incentives. In the Slovak Republic it is predominantly the small and medium-sized enterprises, which often cannot meet the criterion of a minimum volume of investment, and so there are the most common foreign investors who have the benefit from investment incentives (Kincl 2003).

By evaluating the state of foreign direct investment and regional gross domestic product per capita, the cluster analysis showed that the Bratislava region has a strong dominance in the period of time studied. The dominance of the Bratislava region is consistent with the classical theories of regional development, especially as regards the theory of central places of W. Christaller, followed by the J. Friedmann theory of polarized development, according to which the economic growth of the country can be strengthened by hierarchical system of cities and their functional regions. By strengthening the hierarchical system of cities but inevitably occurs to the selection of centers of growth, what does not guarantee to achieve the desired convergence (Blažek and Uhlíř 2002, Maier and Tödtling 1998).

The main reasons for the low influx of FDI into the economy are generally considered to be insufficient political stability, insufficient law enforcement, obscure property legal relations, and low attractiveness of the economic environment and unfinished process of transformation. Apparently, the amount of foreign direct investments reflects the above mentioned shortcomings of the Slovak economy and thus still does not fulfill the required level that would accelerate the transformation process of the microeconomic sphere and thereby also a more effective growth of the Slovak economy. Even in the 21st century, underdeveloped regions are influenced by many obstacles. Low incomes result in low savings; low savings decelerate the capital growth; insufficient capital hinders the implementation of new technologies and a fast growth of productivity; low productivity leads once again to low incomes. The question for many countries even in this century thus is how to break this vicious circle. One of possible ways is to create conditions for the input of foreign capital (new technology and know-how) in the form of FDI and in this way accelerate the convergence process of underdeveloped regions to the level of the developed ones.

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References

- [1] Adamišín, P. (2008). Macroeconomic Coherences of Regional Development in the Slovak Republic. Paper presented at the international conference Hradecké ekonomické dny 2008, in Hradec Kralove, Czech republic.

- [2] Asaturov, K., Teplova T. and Hartwell, C.A. (2015). Volatility Spillovers and Contagion in Emerging Europe. *Journal of Applied Economic Sciences*, 6(36): 47-52.
- [3] Alborno, Facundo, Matheew Cole, Robert J.R. Elliott and Marco G. Ercolani. (2014). The environmental actions of firms: Examining the role of spillovers, networks and absorptive capacity. *Journal of environmental management*, 2014(146): 150-163. DOI: 10.1016/j.jenvman.2014.07.011
- [4] Belanová, K. (2012). Investments, Uncertainty and Irreversibility: Example of Automotive Industry in the Slovak Republic. *Ekonomický časopis*, 60(2): 169-186.
- [5] Blažek, J. and Uhlíř, D. (2002). Teorie regionálního rozvoje: Nástin, kritika, klasifikace [Theory of Regional Development: The Outline, criticism, classification]. Karolinum.
- [6] Blomström, M. and Wolff, E. (1994). Multinational Corporations and Productivity Convergence in Mexico. In Baumol, L. William, Richard R. Nelson, and Edward N. Wolff. *Convergence of Productivity: Cross-National Studies and Historical Evidence*. Oxford University Press.
- [7] Blomström, M., Fors, G. and Lipsey, R.E. (1997). Foreign direct investment and employment: Home country experience in the United States and Sweden. *Economic Journal*, 107(445): 1787-1797.
- [8] Caglayan Akay, Ebru, and Sak, N. (2015). Does Foreign Direct Investment Cause Economic Growth? Panel Data Evidence from Transition Economies. *Journal of Applied Economic Sciences*, 5(35): 11-14.
- [9] Cantwell, J., Iammarino S. and Noonan, C. (2001). Sticky places in slippery space - the location of innovation by MNCs in the European regions. In Pain N: *Inward Investment, Technological Change and Growth: the Impact of Multinational Corporations on the UK Economy*. Palgrave.
- [10] Chuang, Y.-C. and Lin, C.-M. (1999). Foreign Direct Investment, R&D and Spillover Efficiency: Evidence from Taiwan's Manufacturing Firms. *Journal of Development Studies*, 1999(35): 117-137.
- [11] Demel, J., and Potužáková, Z. (2012). FDI and the Liberec Region: the Case of the Labour Market. *E&M Economics and Management Journal*, 2012(4): 4-18.
- [12] Dimelis, S. and Louri, H. (2002). Foreign Ownership and Production Efficiency: A Quantile Regression Analysis. *Oxford Economic Papers*, 54(3): 449-469.
- [13] Driffield, N. (2001). The Impact on Domestic Productivity of Inward Investment in the UK. *Manchester School*, 69(1): 103-119.
- [14] Erdogan, A.M. (2014). Foreign Direct Investment and Environmental Regulations: a Survey. *Journal of Economic Surveys*, 28(5): 943-955. DOI: 10.1111/joes.12047.
- [15] Fiľa, M., Schwarczová, L. and Mura, L. (2015). Citizen satisfaction survey as a tool of citizen relationship management of local government in Slovakia. *Serbian Journal of Management*, 2015(10): 117-129.
- [16] Havránek, T. and Iršová, Z. (2010). Meta-Analysis of Intra-Industry FDI Spillovers: Updated Evidence. *Finance a úvěr - Czech Journal of Economics and Finance*, 60(2): 151-174.
- [17] Hečková, J. and Chapčáková, A. (2011). Competitiveness of the Branch Structure of Slovak Manufacturing Industry in 1998-2008. *Ekonomický časopis*, 59(1): 59-78.
- [18] Huttmanová, E. and L. Synčáková. (2009). Dimensions for Evaluation of Sustainable Development and Human Development. Paper presented at the international conference Hradecké ekonomické dny 2009, in Hradec Kralove, Czech republic.
- [19] Ježková, R. and Ježek, J. (2011). Podnikanie a jeho komunálna a regionálna podpora [Entrepreneurship and its municipal and regional support]. 1. Edition: EUKÓDEX.
- [20] Kadeřábková, B. (2000). Economic growth and foreign direct investment. Paper presented at the international conference 2000, in Nitra, Slovakia.
- [21] Kincl, M. (2003). Investiční pobídky jako forma veřejné podpory [Investment incentives as a form of public support]. Linde.
- [22] Kotulič, R. (2006). Foreign direct investment and their influence on economic growth and regional development. *Review of Economic Perspectives*, 4(2): 15-25.

- [23] Lipsey, E. Rober, and Frederik Sjöholm. (2001). Foreign Direct Investment and Wages in Indonesian Manufacturing. *Journal of Development Economics*, No. 8299 (May), <http://www.nber.org/papers/w8299> (accessed January 20, 2016).
- [24] Maier, G. and Tödtling, F. (1998). Regionálna a urbanistická ekonomika II. [Regional and urban economy II.]. Elita.
- [25] Matejková, E., Qineti, A. and Serenčėš, R. (2008). Macroeconomic aspects of the development of Slovak regions in the post-accession period. *Agricultural Economics – Czech*, 2008, 54(8): 367-375.
- [26] Mura, L., Buleca, J., Horvath, P., Machyniak, J. and Šebík, K. (2014). Identification of Funding of Regional Governments Using Correlation Analysis. *Procedia Economics and Finance*, 2014(15): 154-161.
- [27] Nyen Wong, Koi, Soo Khoo Goh, and Hooi Hooi Lean. (2015). Foreign Direct Investments, Oil Prices and Global Financial Crisis: Evidence from Singapore. *Journal of Applied Economic Sciences*, 4(34): 22-26.
- [28] Slavík, V., Grác, R. and Klobučník, M. (2011). Spatial Autocorrelation – Method for Defining and Classifying Regions in the Context of Socio-Economic Regionalization in the Slovak Republic. *Sociológia*, 43(2): 183-204.
- [29] Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics*, 70: 65-94.
- [30] Swan, T.W. (1956). Economic Growth and Capital Accumulation. *Economic Record*, 32: 334-361.
- [31] Táncošová, J. and Slaný, A. (2004). Theoretical aspects of foreign direct investments. *Ekonomický časopis*, 2004, 52(1): 62-73.
- [32] Tušan, R. and Bilá, A. (2006). Trvalo udržateľný rozvoj regiónov [Sustainable regional development]. TU Košice.
- [33] Vidová, J. (2011). Establishment of Industrial Parks and their Effects on Unemployment in the Economy. *Ekonomický časopis*, 59(8): 823-840.
- [34] Xiaming, L., Siler, P., Wang, C. and Wei, Y. (2000). Productivity Spillovers from Foreign Direct Investment: Evidence from UK Industry Level Panel Data. *Journal of International Business Studies*, 31(3): 407-425.
- [35] Zamrazilová, E. (2007). Foreign direct investments in the Czech republic: selected macroeconomic issues. *Politická ekonomie*, 5: 579-602.
- *** OECD. The Economics of International Investment Incentives. <http://www.oecd.org/investment/investment-policy/2487874.pdf>
- *** National Bank of Slovakia. Foreign Direct Investment. <http://www.nbs.sk/sk/statisticke-udaje/statistika-platobnej-bilancie/priame-zahranicne-investicie>
- *** Statistical Office of the SR. Regional GDP. <http://portal.statistics.sk/showdoc.do?docid=1804>

Determinants of Leviathan in the European Countries

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Abstract:

The article focuses on factors that influence the government size, in literature known as revenue-maximizing Leviathan using the instrument of taxing. The theory admits two possibilities how to constrain the tax maximizing incentives of the "beast", constitutional constraint and intergovernmental competition. Investigation on Leviathan's determinants is made using the cluster analysis of 30 European countries during the period from 1995 to 2014. After segmentation of countries into five clusters the regression models of fixed effects and random effects using panel data were estimated for each cluster. The influence of public deficit on Leviathan seems to be stable and negative. The influence of redistribution needs reflecting the population out of working age and country size on Leviathan is significant but varies depending on cluster. The importance of fiscal decentralization, which is according to overwhelming literature considered as a main constraint to the Leviathan, is feeble.

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Keywords: government size, Leviathan hypothesis, fiscal decentralization, local government, local tax.

JEL Classification: H77.

1. Introduction

The undying interest in government size persists in current discussed topics, but the beginnings of the government size research could be found much earlier. Series of contributions intending on government size were published in the second half of the 20th century. The most known is the Leviathan hypothesis elaborated by Brennan and Buchanan (1980). It states that total government intrusion into the economy should be smaller, *ceteris paribus*, the greater the extent to which taxes and expenditures are decentralized. The Leviathan model of government assigns to government an objective of maximizing its size. Leviathan sets such a tax rates that maximize its tax revenue to reach the peak of Laffer curve. Two possibilities are negotiable; constitutional constraint and intergovernmental competition (Crowley and Sobel 2011, Pruitt 2014). The eligibility of decentralization in public sector was afore presented by Decentralization theorem (Oates 1972). Linkage between fiscal decentralization and government size consists in better match of citizens' preferences and tax-expenditure nexus, in tailoring local public goods to local preferences and in reducing the corruption by increasing the accountability and visibility of local representatives. In addition, bringing government closer to people (Stansel 2006) means better information and thus vote against poor political performance or rent-seeking.

Government expenditures refer on demands of citizens for public spending. It is influenced by demographic and geopolitical factors. Countries with high share of population beyond the working age might have larger governments, because demand for redistribution encourages government spending (Rodden 2003). Rent-seeking (the concept originated by Adam Smith) appears when the natural information asymmetry between representatives and voters allows the representatives to fill their own pockets, what leads to a larger government spending (Krueger 1974). The other cause of government expenditure growth is politicians' interest in reelection. Their electoral motivations attempt them to spend more, especially in election years (Delgado *et al.* 2011). Behaviour of representatives might be also opposite. Under the conditions of fiscal decentralization jurisdictions compete for mobile tax base (source of revenue) by reducing tax rates. The dropout of revenues causes cuts on the expenditure size of the local budget. Government size decreasing is accompanied by the disadvantage of tax competition, known as the race-to-the-bottom hypothesis (Musgrave 1959, Mendoza and Tesar 2005, Razin and Sadka 2011). Generally fiscal decentralization is thought to restrict the growth of the government expenditure, but on the other side, it can create a worrisome race-to-the bottom (Rodden 2003, Crowley and Sobel, 2011, Horváth *et al.* 2013).

The aim of this article is to find out determinants of the government size through the empirical analysis, refereeing on other reliable studies in this field. According to former research the panel dataset of 30 countries from 1995 to 2014 was created. The data are remitted to cluster analysis which divides countries to more homogenous groups. After it panel regression analysis of each cluster is realized and results are discussed. The structure of the article reflects current requirements. Literature overview, methods and data and results are followed by conclusion and references.

Conclusion

This study examines constraints of government expenditures. For this purpose 30 European countries were divided into five groups using the cluster analysis. Clusters represent the segmentation of countries according to their fiscal, macroeconomic, demographic and political variables, monitored in period from 1995 to 2014, finding the maximum similarity inside the cluster and maximum difference among clusters. After, an econometric model was estimated for each cluster separately. The goal of investigation was to reveal the significant influence of a set of variables on the Leviathan. Fixed-effects or random effects models for panel data were estimated, and as the previous studies mention, lagged models were also introduced. The results of the impact of fiscal decentralization on the Leviathan do not support strongly the theory presented in the available literature. The negative influence of the revenue decentralization variable is observable only in case of cluster 3 composed from former transitive economies of Czech Republic, Croatia, Hungary, Poland, Slovenia, Slovakia and other countries as Spain and Netherlands. The assumption that fiscal decentralization decreases the government size was not confirmed in other clusters or in lagged models. But other determinants of Leviathan are important. The influence of public deficit on the government size is negative; the increase of public deficit and public deficit with 1 year lag causes decrease of government expenditures, what reflects on cuts in government expenditures. The influence of the redistribution variable is mostly significant, but varies depending on cluster. For clusters 2, 3 and 4 it has a positive impact contrary to its impact on the Leviathan in cluster 5. Lagged redistribution has equal results. The economic interpretation refers to raised demand on redistribution transfers on the expenditure side of the budget. Country size has positive impact on Leviathan in cluster 1, but negative in cluster 4. Lagged models show positive impact of this variable for cluster 1 and 5. As larger are the population; more public services and goods have to be provided by public sector. GDP per capita is significant in cluster 4 and for lagged models in cluster 3, 4 and 5. Its positive impact on the Leviathan was expected confirming the concept of government spending income elasticity. Results varies, in cluster 4 its impact is negative, and in lagged models for cluster 3 its impact is positive and for cluster 4 and 5 is negative. Variable democracy was mostly omitted from the estimation due to exact collinearity.

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References

- [1] Ashworth, J., Galli, E. and Padovano, F. (2012). Decentralization as a constraint to the Leviathan: A panel cointegration analysis. *Public Choice* <http://link.springer.com/article/10.1007%2Fs11127-012-9962-8#page-1> (accessed January 12, 2016).
- [2] Baltagi, B. H. (2001). *Econometric Analysis of Panel Data*. 2. Edition. Chichester: John Wiley & Sons, Ltd. 293 s. l.
- [3] Brennan, G. and Buchanan J. (1980). *The Power to Tax: Analytical Foundations of a Fiscal Constitution*. New York: Cambridge University Press.
- [4] Crowley, G.R. and Sobel, R.S. (2011). Does Fiscal Decentralization constrain Leviathan? New evidence from local property tax competition, *Public Choice* 149, 5-30.
- [5] Delgado, F.J., Lago - Penas, S. And Mayor, M. (2011). On the determinants of local tax rates: new evidence from Spain, 2011. Working Papers 2011/4, Institut d'Economia de Barcelona.
- [6] Fiva, H. J. (2006). New evidence on the effect of fiscal decentralization on the size and composition of government spending. *FinanzArchiv/ Public Finance Analysis* 62(2): 250-280.
- [7] Gazda, V., Šulíková, V., Horváth, D., Siničáková, M. and Horváth J. (2014). On the structure of European Economic and Monetary Union - clues from the data and economic intuition. *Procedia Economics and Finance: Emerging Markets Queries in Finance and Business*: 24-27 October 2013, Tîrgu Mureş, Romania. 15: 200-205.
- [8] Greene, W. (2011). *Économétrie, Édition francophone*, 7^e édition, Pearson Education France.
- [9] Horváth, D., Maličká, L. and Gazda, V. (2013). Towards a Probability Transition Matrix Model of the Tax Competition. In: *Economic Computation and Economic Cybernetics Studies and Research*. 47(4): 1-14.
- [10] Horváthová, L. et al. (2012). Fiscal Decentralization and Public Debt in the European Union. *Lex Localis: Journal of Local Self-Government*. 10(3): 265-276.
- [11] Hsiao, Ch. (2003). *Analysis of Panel Data*. 2nd edition [online] Cambridge: Cambridge University Press. http://books.google.sk/books?id=i9iPG7C3EP4C&printsec=frontcover&hl=sk&redir_esc=y#v=onepage&q&f=false (accessed January 13, 2016)

- [12] Jin, J., and Zou, H. (2002). How Does Fiscal Decentralization Affect Aggregate, National, and Subnational Government Size? *Journal of Urban Economics*, 52: 270–293.
- [13] Krueger, A.O. (1974). The Political Economy of the Rent Seeking Society, In: *The American Economic Review*, 64(3). Available at <https://www.aeaweb.org/aer/top20/64.3.291-303.pdf> (accessed January 13, 2016)
- [14] Lukáčiková, A. and Lukáčik, M. (2008). *Ekonometrické modelovanie s aplikáciami*. Bratislava: Vydavateľstvo EKONÓM.
- [15] Mendoza, E.G. and Tesar, L.L. (2005). Why hasn't tax competition triggered a race-to-the-bottom? Some quantitative lessons from the EU. *Journal of Monetary Economics*, 52:163-204.
- [16] Musgrave, R. (1959). *The Theory of Public Finance*. New York: McGraw
- [17] Oates, W.E. (1972). *Fiscal Federalism*, Harcourt, New York.
- [18] Oates, W.E. (1985). Searching for leviathan: an empirical study. *The American Economic Review*, 75(4): 748-757.
- [19] Oates, W.E. (1989). Searching for Leviathan: A reply and some further reflections, *The American Economic Review* 79. 578–583.
- [20] Pruitt, J. (2014). Fiscal Decentralization and State-Level Tax Competition: A Leviathan Perspective. <http://www.antolin-davies.com/theses/pruitt.pdf> (accessed January 17, 2016)
- [21] Razin, A., Sadka, E. (2011). Tax Competition and Migration: The Race-to-the-Bottom Hypothesis Revisited. NBER Working Paper Series. No. 11670, <https://www.uclouvain.be/cps/ucl/doc/econ/documents/textesadka.pdf> (accessed January 12, 2016)
- [22] Řezánková, H., Húsek, D. and Snášel, V. (2009). *Zhluková analýza dat*. Professional Publishing. PBTisk, Příbram, Druhé vydání.
- [23] Rodden, J. (2003). Reviving Leviathan: Fiscal Federalism and Growth of Government. *International Organization* 57, 695–729.
- [24] Stansel, D. (2006). Interjurisdictional competition and local government spending in U.S. metropolitan areas. *Public Finance Review* 34(2): 173-194.
- [25] Šulíková, V, Siničáková, M. and Horváth D. (2014). Twin Deficits in Small Open Baltic Economies: In: *Panoeconomicus*. Vol. 61, no. 2 (2014), p. 227-239.
- *** Eurostat <http://ec.europa.eu/eurostat/help/new-eurostat-website> (accessed January 10, 2016).
- *** Polity IV <http://www.systemicpeace.org/polity/polity4.htm> (accessed January 10, 2016).
- *** The Global Economy.com <http://www.theglobaleconomy.com> (accessed January 10, 2016).

Cantonal Convergence in Ecuador: A Spatial Econometric Perspective

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Abstract

The paper analyses the convergence process of Ecuadorian cantons during the period 2007-2012 accounting for the role of spatial spillovers through using spatial econometrics. The advantage of this technique is to provide reliable estimations because it takes into account the spatial interaction in the territory. In addition, it allows identifying clusters of cantons characterised by similar spatial patterns that can be interpreted as convergence clubs because they represent areas with similar initial conditions in the "basin of attraction" that, according to economic theory, converge to a common steady state equilibrium.

The results highlight that a convergence process is present, but it involves the cluster of most developed cantons. This opens various policy implications related to i) the capacity of cantons to take advantage from the positive dynamics of neighbours, ii) the persistence of development in some circumscribed areas, and iii) the spatial unbalanced development.

Keywords: subnational convergence, spatial econometrics, convergence clubs, Ecuador.

JEL Classification: C21, O47, R11.

1. Introduction

The recent economic history of Ecuador has been characterised by serious instabilities that were the result of inefficient and ineffective policies that caused structural failures whose magnitude jeopardized the achievement of higher levels of development. One of them is represented by the severe provincial disparities still persisting in Ecuador, reflected in a heterogeneous economic and social geography, which accounts for provinces with asymmetric characteristics in terms of productivity and competitiveness, as well as in terms of differentiated population and social. These asymmetries between subnational areas can inhibit the growth of domestic production and contribute to its instability, becoming a problem of circular causation that can undermine the future development of the whole country. This process of unbalanced growth justifies the implementation of compensatory territorial policies whose effects have to be tested in light of the latest progresses of economic and econometric theories. The endogenous growth theory, in particular, put emphasis in the role of spillovers in order to determine the growth pattern of an economy. These spillovers, called dynamic externalities, may have various sources and are often directly linked with agglomeration economies. In contrast with traditional localization and urbanization economies, dynamic externalities explain both the formation of urban areas and local economic development over time. Under a methodological point of view, in this paper cantonal convergence in Ecuador will be evaluated by mean of spatial econometrics, a technique that accounts explicitly the first law of geography according to which everything is related to everything else, but near things are more related than distant things (Tobler 1970).

This concept is translated into a statistical indicator called Moran's I which relates the value of a variable to the values of the same variable in the neighbours locations. In literature it is demonstrated that socio-economic variables are strongly correlated to their relative location in space creating spatial dependence, i.e. spatial clusters with homogeneous values. Spatial dependence, which has implications for the correct estimates of the parameters in the basic regression models, will be explicitly accounted in order to estimate models that consider this evidence, reaching a double advantage: to obtain reliable results and to account for the role of space in economic growth, that, according to recent literature, cannot be neglected.

In addition, concerning the spatial heterogeneity problem, we determine spatial regimes according to Moran's I, which are interpreted as spatial convergence clubs (Ertur *et al.* 2006), to capture territorial polarization pattern observed in Ecuadorian cantons.

The paper is structured into four further sections. The first one deals with the concept of endogenous growth theory and spatial spillovers. The second section covers the estimation technique in presence of spatial spillovers, before proceeding to analyse the economic convergence of Ecuador. The final section consists of the conclusions and the possible policy implications.

Conclusions

The analysis overviewed that theoretical and the empirical motivation for the inclusion of the spatial dimension in growth analysis at subnational level. The theoretical justification is mainly due to the possible knowledge spillovers caused by proximity in space, supported also from the empirical literature that finds that spatial autocorrelation matters for convergence. The results highlight that the spatial autocorrelation across Ecuadorian cantons is not very high but significant. The spatial distribution of Gross Value Added in 2007 and 2012 is quite persistent and heterogeneous. The average growth was also not widespread in space and, often, the cantons that growth at higher rates is located close to others already developed. The regression analysis shows that absolute convergence process is present and the convergence rate is a little bit higher than the correspondent OLS estimation. The results, in any case, have to be refined by adding further explanatory variables because the chosen spatial error model might point to misspecification problems. The identification of convergence clubs through the Moran scatterplot allows the estimation of a single equation for each club. Convergence regards the clusters of most developed and less developed cantons, respectively, while the others are not able to converge opening various policy implications related to i) the capacity of cantons to take advantage from the positive dynamics of neighbours, ii) the persistence of development paths in some circumscribed areas, and iii) the spatial unbalanced development. These problems are very important if we consider that 35% of cantons do not converge and that this could inhibit the balanced growth in a country already characterised by persistent geographical dissimilarities and increasing territorial inequality.

References

- [1] Alvarado, R. (2011). Measuring the competitiveness of the provinces of Ecuador. Universidad Católica del Norte. MPRA Paper No. 34244, posted 22.
- [2] Anselin, L. (1988). Spatial econometrics: Methods and models. Kluwer Academic Publishers, Dordrecht.
- [3] Anselin, L. (2003). Spatial externalities, spatial multipliers and spatial econometrics. *International Regional Science Review*, 26(2): 153-166. DOI: <http://dx.doi.org/10.1177/0160017602250972>
- [4] Anselin, L., Rey, S. (1991). Properties of tests for spatial dependence in linear regression models. *Geographical Analysis*, 23(2): 112-131. DOI: <http://dx.doi.org/10.1111/j.1538-4632.1991.tb00228.x>
- [5] Arbia, G., Battisti M. and Di Vaio G., (2010). Institutions and geography: Empirical test of spatial growth models for European regions. *Economic Modelling*, 27(1): 12-21. DOI: <http://dx.doi.org/10.1016/j.econmod.2009.07.004>
- [6] Arrow, K.J. (1962). The economic implications of learning by doing, *Review of Economic Studies*, 29(3), 155-172. DOI: <http://dx.doi.org/10.2307/2295952>
- [7] Baldwin, R.E. and Martin, P. (2004). Agglomeration and regional growth. In Henderson J.V., Thisse J.-F. (Eds.), *Handbook of Regional and Urban Economics*, 4: 2671-2712.
- [8] Barrera Guarderas, A. (2007). Agotamiento de la descentralización y oportunidades de cambio en el Ecuador. In Fernando Carrión M. (eds.), *La descentralización en el Ecuador: opciones comparadas*, FLACSO sede Ecuador, Quito: 175-206.
- [9] Barro, R.J. and Sala-i-Martin, X. (1991). Convergence across states and regions. *Brookings Papers on Economic Activity*, 1: 107-82.
- [10] Carrión, M.F. and Dammert, M. (2007). La descentralización en el Ecuador: un tema de Estado. In Carrión M.F. (eds.), *La descentralización en el Ecuador: opciones comparadas*, Quito, FLACSO sede Ecuador: 9-17.
- [11] Crafts, N. (1996). 'Post-neoclassical endogenous growth theory': what are its policy implications? *Oxford review of Economic Policy*, 12(2): 30-47. DOI: <http://dx.doi.org/10.1093/oxrep/12.2.30>
- [12] Debreu, G. and Herstein, I.N. (1953). Nonnegative square matrices. *Econometrica*, 21(4): 597-607. DOI: <http://dx.doi.org/10.2307/1907925>
- [13] Durlauf, S.N. and Johnson, P. (1995) Multiple regimes and cross-country growth behavior. *Journal of Applied Econometrics*, 10(4): 365-84. DOI: <http://dx.doi.org/10.1002/jae.3950100404>
- [14] Elhorst, J.P. (2010) Applied Spatial Econometrics: Raising the Bar. *Spatial Economic Analysis*, 5(1): 9–28. DOI: <http://dx.doi.org/10.1080/17421770903541772>

- [15] Ertur, C., Le Gallo, J., Baumont, C. (2006). The European regional convergence process, 1980-1995. Do spatial regimes and spatial dependence matter?, *International Regional Science Review*, 29(1): 3-34. DOI: <http://dx.doi.org/10.1177/0160017605279453>
- [16] Fingleton, B. (2001). Equilibrium and economic growth: Spatial econometric models and simulations. *Journal of Regional Science*, 41(1): 117-47. DOI: <http://dx.doi.org/10.1111/0022-4146.00210>
- [17] Fingleton, B., Le Gallo, J., (2008). Estimating spatial models with endogenous variables, a spatial lag and spatially dependent disturbances: Finite sample properties. *Papers in Regional Science*, 87(3): 319-339. DOI: <http://dx.doi.org/10.1111/j.1435-5957.2008.00187.x>
- [18] Fingleton, B., López-Bazo E. (2006). Empirical Growth Models with Spatial Effects. *Papers in Regional Science* 85(2): 177-198. DOI: <http://dx.doi.org/10.1111/j.1435-5957.2006.00074.x>.
- [19] Florax, R.J.G.M., Folmer, H. (1992). Specification and estimation of spatial linear regression models. *Regional Science and Urban Economics*, 22(3), 405-432. DOI: [http://dx.doi.org/10.1016/0166-0462\(92\)90037-2](http://dx.doi.org/10.1016/0166-0462(92)90037-2)
- [20] Glaeser, E.L., Kalla, I H.D., Scheinkman, J.A. and Shleifer, A. (1992). Growth of cities. *Journal of Political Economy*, 100(6): 1126-1152. DOI: <http://dx.doi.org/10.1086/261856>
- [21] Jacobs, J. (1969). *The economy of cities*, Random House, New York.
- [22] Ketels, C. (2013). Recent research on competitiveness and clusters: what are the implications for regional policy? *Cambridge Journal of Regions, Economy and Society*, 6(2): 269-284. DOI: <http://dx.doi.org/10.1093/cjres/rst008>
- [23] LeSage, J., Fischer, M. (2008). Spatial growth regressions: model specification, estimation and interpretation. *Spatial Economic Analysis*, 3(3): 275-304. DOI: <http://dx.doi.org/10.1080/17421770802353758>
- [24] LeSage, J., Pace, K. (2008). Spatial econometric modeling of origin-destination flows. *Journal of Regional Science*, 48(5): 941-967.
- [25] LeSage, J.P., Pace, K. (2009). *Introduction to spatial econometrics*. CRC Press Taylor & Francis Group, Boca Raton.
- [26] López-Bazo, E., Vayà, E., Mora A. and Suriñch, J. (1999). Regional economic dynamics and convergence in the European Union. *Annals of Regional Science*, 33(3): 343-370. DOI: <http://dx.doi.org/10.1007/s001680050109>
- [27] Mankiw, N.G., Romer, D. and Weil, D.N. (1992). A contribution to the empirics of economic growth. *Quarterly Journal of Economics*, 107(2): 407-437. <http://dx.doi.org/10.2307/2118477>
- [28] Moran, P.A.P. (1950). Notes on continuous stochastic phenomena. *Biometrika*, 37: 17-23. DOI: <http://dx.doi.org/10.2307/2332142>.
- [29] Moreno, R. and López-Bazo, E. (2007). Returns to local and transport infrastructure under regional spillovers. *International Regional Science Review*, 30(1): 47-71. DOI: <http://dx.doi.org/10.1177/0160017606296728>
- [30] Marshall, A. (1890). *Principles of economics*, Macmillan, London.
- [31] Martín Mayoral, F. (2012). El Desempeño de la economía Ecuatoriana durante el gobierno del Economista Rafael Correa. In Mantilla S. and Mejía SA. (eds.) *Balance de la Revolución Ciudadana*. Centro Latinoamericano de Estudios Políticos, Editorial Planeta del Ecuador. Quito: 237-266.
- [32] Martin, R. and Sunley, P. (1996). Slow convergence? Post-neoclassical endogenous growth theory and regional development. *ESRC Centre for Business Research*.
- [33] Martin, R. and Sunley, P. (1998). Slow convergence? The new endogenous growth theory and regional development. *Economic Geography*, 74(3): 201-227. DOI: <http://dx.doi.org/10.1111/j.1944-8287.1998.tb00113.x>
- [34] Mendieta Muñoz, R. (2015a). *Remesas y disparidades económicas territoriales: El caso ecuatoriano*. 1st ed. Miguel Ángel Porrúa y Universidad de Cuenca. México.
- [35] Mendieta Muñoz, R. (2015b). La hipótesis de la convergencia condicional en Ecuador. Un análisis a nivel cantonal. *Revista Retos*, 9(1), 13-25. DOI: DOI: <http://dx.doi.org/10.17163/ret.n9.2015.01>
- [36] Mideros M. A. (2012). Ecuador: Definición y medición multidimensional de la pobreza, 2006-2010. *Revista CEPAL*, 108: 51-70.

- [37] Montresor E., Pecci, F. and Pontarollo, N. (2011). The Convergence Process of the European Regions: the Role of Regional Policy and Common Agricultural Policy. *Studies in Agricultural Economics*, 113(2). DOI: 167-177. <http://dx.doi.org/10.7896/j.1112>.
- [38] Pontarollo, N. and Ricciuti, R. (2015). Railways and the Productivity Gap in Italy: Persistence and Divergence after Unification, *CESIFO WORKING PAPER* NO. 5438.
- [39] Porter, M. (1990). *The competitive advantage of nations*. Macmillan, London.
- [40] Ramón Mendieta, M. (2009). Convergencia y divergencia regional en Ecuador. Universidad Nacional Autónoma de México.
- [41] Rey, S. and Montouri, D. (1999). US Regional Economic Convergence: A Spatial Econometric Perspective. *Regional Studies*, 33(2): 143-156. DOI: <http://dx.doi.org/10.1080/00343409950122945>
- [42] Romer, P. (1986). Increasing returns and long-run growth. *Journal of Political Economy*, 94(5): 1002-1037. DOI: <http://dx.doi.org/10.1086/261420>
- [43] Tobler, W. (1970). A computer movie simulating urban growth in the Detroit region. *Economic Geography*, 46: 234-240. DOI: <http://dx.doi.org/10.2307/143141>
- [44] Valdiviezo, Ramón, C.d.R. (2013). Contribución del capital, trabajo y tecnología a la generación de procesos de convergencia en el Ecuador: 1993 – 2012. Universidad Técnica Particular de Loja.
- *** CEPAL (2009). Economía y territorio en América Latina y el Caribe, desigualdades y políticas. Santiago de Chile, ONU.
- *** Código Orgánico de Organización Territorial, Autonomía y Descentralización (COOTAD) (2010), published in the Registro Oficial N 303 de martes 19 de octubre del 2010.

Methodological Approaches to Evaluation of Economic Security of Enterprise

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Abstract

At present, functioning of enterprises is takes place under the conditions of unstable market environment, which requires full evaluation of not only particular factors which influence the activities of enterprise but also leads to necessity for development of complex evaluation of economic security, which is very important for further development of enterprise and predetermines scientific interest to this problem. The purpose of this research is to study theoretical and methodological approaches to evaluation of economic security of enterprise, develop proprietary methodology of evaluation of economic security of enterprise, and test the offered methodology by the example of materials of specific enterprise. In order to achieve the set purpose, economic & statistical methods of research and economic & comparative analysis were used. Methodological and practical research was based on the following methods: complex and structural & logical, expert methods, methods of comparison and modeling. The conducted research determined high-priority indicators of economic security of enterprise which fully reflect the state of economic security of enterprise and actualiz threshold values of mandatory norms. The given indicators of economic security allow evaluating and quantitatively determining the level of economic security of enterprise. The developed methodology of complex evaluation of economic security of enterprise in view of macro-, meso-, and micro-economic factor, unlike the existing ones, allows receiving integral indicators of the level of economic security of enterprise and interpreting their meaning with the help of estimation scale. Recommendations which are formulated in the research can be used for solving issues related to increase of effectiveness of enterprise functioning and provision of economic security.

Keywords: economic security of enterprise, quality of labor life, economic security of enterprise.

JEL Classification: K22.

1. Introduction

Under the conditions of unstable state of economy and regularly recurring crises, results of functioning of enterprises of various spheres and various organizational & legal forms are uncertain and unpredicted. Economic activities of economic subjects are influenced by macro-economic factors (state of commercial law, political and socio-economic situation in the country, regional and international conflicts, level of criminalization of society, etc.) and micro-economic ones (personnel, sufficiency of capital, assortment, effectiveness of marketing and management). All of this aggravated the problem of provision of security of enterprise (Endovitskaya 2014).

Activization of study of the problems of economic security predetermined development of several main approaches, among which the following could be distinguished: systemic, normative & legal, resource, functional, and synergetic. Systemic approach to study of economic security is related to study of all economic processes of enterprise from the position of theory of dynamic systems. In this theory, security is viewed as attribute or state of enterprise, predetermined by cooperation of the system and micro-, macro-, and micro-environments of functioning. According to such approach, security is on the one hand, one of the most important indicators of the system, and, on the other hand, the function of the system, which reflects its essential content and is one of goals and conditions of its functioning. Sustainable and safe development of the system is viewed as specific form of movement, characterized by three parameters – quantity, quality, and structure.

Normative & legal approach is based on legislative acts in the sphere of economic security. The foundation of legal basis during development of principles of provision of economic security of enterprise consists of the Law “Concerning security” dated December 28, 2010 and Strategy of national security of the Russian Federation until 2020, passed by the Decree of the President of the RF dated May 12, 2009. These documents

contain conceptual ideas of security, main terms, and their definitions (Federal Law, 2010, Decree of the President of the RF, 2009). A key notion in existing definitions of security within normative approach is "protectability". Thus, security is understood as a state of protectability of economic item from negative phenomena and threats. The Law "Concerning security" shows a whole new level of Russian studies of the problem of economic security which takes into account interests of not only the state but of subjects of micro-economics (Federal Law 2010).

Resource approach treats economic security of enterprise as totality of resources and organizational capabilities. A top-priority task in provision of economic security is increase of sustainability, development of economic subject, and strengthening of its competitive position in the market. Functional approach to determination of the sense of economic security supposes presence of direct dependence between power of influence of any external or internal factor on activities of economic subject and result of this influence manifested as change of state of economic subject.

Issue of security is reflected in synergetics, where danger to economic subject is defined as dynamically stable state as to unfavorable influences, activities for protection from internal and external threats and for provision of internal and external conditions of its existence which guarantee possibility for stable development. According to such treatment, economic security of enterprise is determined by influence of external environment, which, under the market conditions, constantly changes and is never stable. This approach is popular in publications of Russian economists which view content of category of economic security of enterprise from positions of significant influence of external environment and means of protection from its negative influence (Bogomolov 2011).

On the basis of study of modern treatments of the term "economic security", we found that economic security of enterprise is the state which ensures the most effective use of enterprise resources for provision of stable functioning and development, at which it is capable for maximization of its cost with acceptable risk level. Russian and foreign experience of provision of economic security shows that effective resistance to totality of risks and threats requires well-balanced and targeted organization of the process of management of economic security. Organization of this process should be conducted by specialists and enterprise's administration and employees, which determined high significance of organizational aspect of this issue (Serebryakova, Sibirskaya, Stroeva and Petruchina 2014). The main purpose of economic security of enterprise is provision of its sustainable and most effective functioning at present and provision of high potential for development and growth in future (Bezuglaya 2010). Due to complexity and multidimensionality of content of this category, it should be viewed as a system. Russian scientists understand system of economic security of enterprise as an organized totality of special bodies, services, methods, and measures which provide protection of vital interests of personality, enterprise, and state from internal and external threats (Serebryakova, Sibirskaya, Stroeva and Lyapina 2014). At that, it seems that system of economic security includes totality of interconnected sub-systems: sub-system of monitoring, sub-system of indicators, objects of management, subjects of provision and tools and methods of management (Figure 1).

Conclusion

The conducted research and systematization of scientific approaches to issues of evaluation of economic security of enterprise allowed making the following conclusions. Effective work of any enterprise under the modern economic conditions is impossible without analysis of internal and external threats to its economic security and development of mechanisms of their elimination.

Evaluation of economic security of enterprise should be viewed as continuous process, based on systemic monitoring and analysis of indicators of economic security which allows receiving objective characteristics of the state of economic security of enterprise for the purpose of use of corresponding mechanisms of its provision (Serebryakova 2013). The main goal of evaluation of economic security of business subject is to prevent damage from negative influence and to achieve effectiveness of activities, and the main task is to timely determine problem situations.

This article states only main indicators of economic security of business subject, but the given methodology allows transforming and complementing them, depending on specifics and sphere of activities of organization for fuller and truer evaluation.

References

- [1] Bezuglaya N.S. (2010). Economic security of enterprise. Contents of economic security of enterprise. *Russian entrepreneurship*, 4(1): 63-67.
- [2] Bogomolov, V.A. 2011. Economic security: textbook / V.A. Bogomolov. - M.: UNITI-DANA, – 263 p.
- [3] Endovitskaya A.V., Volkova T.A., Baliashvili D.U. (2014). Theoretical and methodological approaches to determination of contents of economic security of enterprise and its evaluation// *Modern economy: problems and solutions*, 10 (58): 62-68.
- [4] Gilfanov, M.T. (2013). Organizational and methodological instrumentarium of evaluation of determinants of provision of enterprise economic security, *Socio-economic phenomena and processes*. 8: 16 -32.
- [5] Khorev, A.I., Salikov, Y.A., Serebryakova, N.A. (2015). Conceptual Features of the Balanced Development of Business Organizations. *Asian Social Science*, 11(20): 22-29 (Special Issue).
- [6] Panin, A.U., Semenenko, S.V., Sinyukova, V.A. (2014). Economic security of enterprises: organizations, functioning, development. Voronezh.
- [7] Salikov, Y.A., Kolomytseva, O.Y., Pakhomova, T.A., Grishchenko, N.V. (2015). Actual Issues of Planning of Well-Balanced Development of Innovative & Investment Activities. *Asian Social Science*, 11(20): 193-206.
- [8] Segebryakova, N.A. (2013). Conceptual foundations of organization and conduct of managerial consultation for provision of organization of organization's management. *Theoretical and Applied Issues of Economics and Service Sphere*, 5: 37-48.
- [9] Semenenko, S.V. (2014). Theoretical substantiation of structure of trade organization competitive potential. *Bulletin of Belgorod University of Cooperation, Economics and Law*, 1(49): 185-199.
- [10] Serebryakova, N., Sibirskaya, E., Stroeveva, O., Lyapina, I. (2014). The Contents and Structure of Innovative Activity in the Russian Economy. *Asian Social Science*, 10(23): 51-59.
- [11] Serebryakova, N., Sibirskaya, E., Stroeveva, O., Petruchina, E. (2014). The Need of the Uniform Information Platform "Innovations of Russia" Formation. *Asian Social Science*, 10(23): 78-85.
- [12] Serebryakova, N.A. (2014). Perspective directions of development of innovational activity of food industry enterprises. *Theoretical and Applied Issues of Economics and Service Sphere*, 8: 19-22.
- [13] Serebryakova, N.A. and Pakhomova, T.A. (2014). Monitoring of innovational and investment activities of economic systems. *Theoretical and Applied Issues of Economics and Service Sphere*. 2: 27-42.
- [14] Serebryakova, N.A., Ulchenko, T.Y. and Pankova, N.M. (2015). Risks management at macro- and micro-levels. *Bulletin of Voronezh State University of Engineering Technologies*. 2 (64): 237-242.
- [15] Shlykov, V.V. (2013). Complex provision of economic security of enterprise, SPb.: Aletya, 91 p.
- [16] Tamoshina G.I. et al. (2012). Public welfare and mechanisms of its formation: monograph. Voronezh:

NauchnayaKniga Publ. 121 p.

[17] Zhuravlev, Y.V., Smolyanova, E.L., Matuzov, Y.I. and Semenenko, S.V. (2011). Management of innovational changes at enterprise. Moscow.

*** Federal Law dated December 28, 2010 No. 390-FZ "Concerning security" (December 28, 2010) No. 390-FZ. – URL: // www.consultant.ru/

*** Federal State Statistics Service - <http://www.gks.ru> (Date of access: 12.07.2015).

*** On Strategy of national security of the RF until 2020 (E-source): Decree of the President of the RF dated May 12, 2009. No. 537. URL: <http://www.consultant.ru>

Vulnerability of the European Deposit Guarantee Schemes and the Banking Resolution Mechanism

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Abstract:

The new directives of the European Parliament and the European Council issued in 2014 define unified expectations regarding deposit guarantee schemes and banking resolution mechanism to be applied in territory of each EU member state. Moreover, the so called Single Resolution Fund must be implemented by euro zone member states in order to finance the resolution processes. The article introduces the main rules of the unified systems as well as deals with their financial background. It provides evidence for vulnerability of deposit guarantee schemes supposing such situation where clients of a large bank are to be compensated. Furthermore, it proves that the target total asset level of the Single Resolution Fund declared by European Commission is underestimated.

Keywords: resolution, banking union, deposit guarantee schemes, DGS.

JEL Classification: G20, G21, G28, G38.

1. Introduction

Herman Van Rompuy the former President of the European Council recommended numerous measures in order to stabilize the European economic and monetary union in 2012. The recommendations were given for the European Commission (hereinafter Commission), the Euro group and the European Central Bank. One of the recommendations was compiled with the intention of establishing an integrated financial system which is nowadays called simply as Banking Union. (Council of the European Union 2012)

Pillars of the Banking Union are defined in more regulations and directives in the European Union. The European Parliament approved the proposals of the Commission concerning European Single Supervisory Mechanism in 2013. From November 2014, it brought significant changing in the banking supervisory activity. Participation is compulsory for each euro zone member state but others from the European Union could also join to the system. (European Parliament and of Council 2013a)

Conclusion

Creation and implementation of deposit guarantee schemes is direct consequence of the banking base activity. Having received deposits, banks provide funds for their clients. Therefore, the received deposits at a given moment are physically not available at the banks because the loans are paid back during the contracted period. In order to mitigate the risk, among other measures, deposit guarantee institutions ensure the provided deposits up to 100000 euros in the European Union. Selecting a sample, it was proved that the value of the total assets of deposit guarantee institutions being in the sample is not enough to entirely compensate clients of large banks belonging to the insurance institution in question.

The new resolution mechanism provides new framework of process of resolution of the banks. During the resolution process the sale of the business, usage of bridge institution, asset separation and the bail-in tools are available for the resolution authorities. These tools can be combined or can be applied separately. In order to make the process more prudent the euro zone member states have to upload the mutual resolution fund. The European Committee declared the target level of total asset of the mutual resolution fund which is 55 billion euros to be reached by 2024. The linear regression model employed and the revealed connection of covered deposits in member states of the European Union and their GDP provides evidence for forecasting higher total asset level of the Single Resolution Fund as for 2024.

References

- [1] Claessens, S., Herring, R., Schoenmaker, D. and Summe, K. (2010). A Safer World Financial System: Improving the Resolution of Systemic Institutions. Geneva Reports on the World Economy 12.
- [2] Engineer, M., Schure, P. and Gillis, M. (2012). A Positive Analysis of Deposit Insurance Provision: Regulatory Competition among European Union Countries. *Journal of Financial Stability*, 9(4): 530-544, <http://dx.doi.org/10.1016/j.jfs.2013.10.001>.
- [3] Gros, D. and Shoenmaker, D. (2014). European Deposit Insurance and Resolution in the Banking Union. *Journal of Common Market Studies*, 52(3): 529-546, <http://dx.doi.org/10.1111/jcms.12124>
- [4] Micossi, S., Brizzzone, G. and Carmassi, J. (2013). The New European Framework for Managing Bank Crises. *Centre for European Policy Studies*, 304: 1-21.
- [5] Pisani-Ferry, J., Sapir, A., Véron, N. and Wolff, G. (2012). What kind of European Banking Union? *Bruegel Policy Contribution*, 12: 1-20
- [6] Schoenmaker, D. (2011). The Financial Trilemma. Duisenberg school of finance, Tinbergen Institute Discussion Paper, TI 11-019/DSF 7:1-9, <http://dx.doi.org/10.2139/ssrn.1340395>.
- *** BNP Paribas (2014). Annual Report https://invest.bnpparibas.com/sites/default/files/documents/DDR_2014_gb.pdf
- *** Council of the European Union (2012). Towards a genuine Economic and Monetary Union – report by President of the European Council, Herman Van Rompuy. http://ec.europa.eu/economy_finance/crisis/documents/131201_en.pdf
- *** European Commission (2007). Investigating the efficiency of EU Deposit Guarantee Schemes. <http://publications.jrc.ec.europa.eu/repository/bitstream/JRC48944/jrc%20s%26t%20dgs%20eff.pdf>.
- *** European Commission (2009). JRC Report under Article 12 of Directive 94/19/EC as amended by Directive 2009/14/EC. http://ec.europa.eu/internal_market/bank/docs/guarantee/jrc-rep_en.pdf.
- *** European Commission (2013). Updated estimates of EU eligible and covered deposits. <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/updated-estimates-eu-eligible-and-covered-deposits?search>
- *** European Commission (2014a). Statement - Finalising the Banking Union: European Parliament backs Commission's proposals (Single Resolution Mechanism, Bank Recovery and Resolution Directive, and Deposit Guarantee Schemes Directive). http://europa.eu/rapid/press-release_STATEMENT-14-119_en.htm
- *** European Commission (2014b). European Economic Forecast, Autumn 2014. European Economy series 7|2014: 1-192

- *** European Parliament and of Council (2013a). 2013/36/EU directive on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC, 2013 június 26. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2013:176:FULL&from=HU>
- *** European Parliament and of Council (2013b). 575/2013/EU regulation on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2013:176:FULL&from=HU>
- *** European Parliament and of Council (2014a). 2014/49/EU directive on deposit guarantee schemes. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0049&from=EN>
- *** European Parliament and of Council (2014b). 2014/59/EU directive on establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0059&from=EN>
- *** European Parliament and of Council (2014c). 806/2014/EU regulation on establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) No 1093/2010. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0806&rid=3>
- *** Fonds de Garantie des Dépôts et de Résolution (2014). Annual Report https://www.garantiedesdepots.fr/sites/default/files/rapport_fgd_2014_anglais_site.pdf
- *** Council of the European Union (2014). Agreement on the Transfer and Mutualisation of Contribution to the Single Resolution Fund. ECOFIN, Brussels
- *** Danish Garantifonden for Indskydere og Investorer (2014). Annual Report http://www.gii.dk/Files/Files/Garantifonden/%C3%85srapporter/2014_Annual%20Report_UK_WEB.PDF .
- *** Danske Bank (2014). Annual Report <https://www.danskebank.com/Documents/Publication.html?id=b9b0d3f8>
- *** Hellenic Deposit and Investment Guarantee Fund (2014). Annual Report http://www.teke.gr/images/teke%20docs/teke%20english/docs/Annual_Report_2014_EN.pdf
- *** Pireaus Bank (2014). Annual Report http://www.google.hu/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=3&ved=0ahUKEwikidifr6HKAhVHcRQKHSyvDIAQFggyMAI&url=http%3A%2F%2Fwww.piraeusbankgroup.com%2F~%2Fmedia%2FCom%2F2015%2FFiles%2FInvestor-Relations%2FFinancial-Data%2FAnnual-Reports%2FAnnual_Report2014_En.pdf&usq=AFQjCNFg1vhWoxoahubeyXLA2XUZA7UkNg.

Exploring Consumer Behaviour by Classification Methods

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Abstract:

This article deals with classification in area of customers' behaviour. The goal was to find a possibility how to classify respondents according to their personal information into classes based on their answers to factors from marketing survey. For classification are used sixty methods from Weka. In paper is described the process of classification and improvement of results by reduction of input variables and adjusting of parameters of particular methods. The article also discusses results which were achieved by application of these methods. For best classification cases closer analysis was performed.

Based on the results of this paper can say, that use of classification methods in marketing research is reasonable because it can bring interesting information and reduce entropy.

Keywords: classification, data processing, knowledge discovery, marketing research, consumer behaviour.

JEL Classification: M31, C38.

1. Introduction

The current business world is undergoing consistent change. To survive in the current competitive environment companies have to be able to respond to such changes (Antlova 2009). The perception of information and communication technology has been gradually transformed from something rather unique, bringing a competitive advantage in the market, to the necessity of conditioning the existence or not existence of business between the competitive business organizations (Chalupova and Motycka 2008). With computers introduction in the office, administrative functions have got a new generation of these tools for information processing and communication. (Capek 2013)

The area of customer behaviour is explored in the field of Customer Relationship Management (CRM). CRM uses marketing research as a strong tool to explore consumer behaviour. Marketing research is a process of collecting and using information for marketing decision making (Boone and Kurt 2013). Customer Relationship Management can be seen as a holistic framework for interaction of organizations with their customers (Darena 2008). At first, CRM looks for the answer how to get closer to the customer by using data stored in large databases. After that the company usually transforms itself into customer-centric organizations with great focus on customer profitability as compared to line profitability (Ogwueleka, Misra, Colomo-Palacios *et al.* 2015). Tools to simplify phases of marketing research, particularly data collection and its analysis can be more effective through the use of data mining techniques (Bradly 2007). As a part of a Marketing Information System (Darena, 2007) such tools provide decision makers with a continuous flow of information relevant to their area of responsibility (Boone and Kurt 2013). The desire for forecasting to support the decision-making occurs not just in corporate financial performance (Hajek, Olej and Myskova 2014) but also in CRM.

Birciakova, Stavkova and Soucek (2014) describe today's consumer society by many distinctive features: increasing consumer activities, the new phenomenon of recreational shopping, strongly location-based consumption, strengthening customers' role on the market, developing IT and its impact on consumer behaviour in the form of broader and more varied selection and availability of products and services, and easier access to information from both the supply and demand side. The issue of customer satisfaction became one of the important themes of marketing in the late 1970s. One of the main reasons was the increasing importance of services where quality became much more important (Vildova, Martincik, Tluchor *et al.* 2015). There are a lot of factors which influence customer behavior (Turcinkova, Stavkova, Skalova and Birciakova 2014; Hajko, Birciakova and Stavkova 2014). Factors that influence the consumer behaviour are very important for businesses because they can focus clearly their business policy based on these factors, which should lead to better business results. (Novotny and Duspiva 2014, Turcinkova and Stavkova 2012)

Observing behaviours, trends, and patterns on multivariate time series has been broadly used in various application domains (Ngan and Brodsk 2013). Collecting particular data from many sources successfully and for a long period brings a hard additional problem. People cannot, due to the data volume, process the data manually within an acceptable time (Darena, Zizka and Prichystal 2014).

This paper presents results of applied data analyses on data collected via questionnaire survey on the sample of 1127 Czech respondents with its structure close to the representative sample of population in the Czech Republic (data collection took place in 2011). It focuses on problems how to recognize the importance of selected factors of consumer behaviour based on personal information of the customer.

Conclusions

The aim of this work was to find a possibility how to classify respondents according to their personal information to classes based on their answers to the above mentioned factors. We tried to find a better solution than to classify all respondents into the mostly chosen class. Except the three factors we always found a better solution by at least one of the classification methods. The summary can be seen in Table 1.

In our closer analysis we reduce the number of input factors which improved the classification result. With adjusting parameters of the used method we got an even better solution. These results can be compared with the study of Netopil, Antosova and Turcinkova (2014) where they reach similar results based on a different research data set.

References

- [1] Antlová, K. (2009). Motivation and Barriers of ICT Adoption in Small and Medium-Sized Enterprises. *E+M Ekonomie a Management*, 12(2): 140–155.
- [2] Birciakova, N., Stavkova, J., Soucek, M. (2014). How Marketing Instruments Affect Consumer Behavior in Times of Economic Turbulence. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 62(6): 1257–1263. <http://dx.doi.org/10.11118/actaun201462061257>
- [3] Bohac, M., Lysek, J., Motycka, A. and Cepl, M. (2011). Face Recognition by Means of New Algorithms. MENDEL 2011 - 17th International Conference on Soft Computing. Brno University of Technology, 504–509.
- [4] Boone, L.E. and Kurt, D.L. (2013). *Contemporary Marketing*. Mason: Cengage Learning.
- [5] Capek, J. (2013). Information Systems and Information Chaos. Strategic Management and Its Support By Information Systems, 10th International Conference, 44–55.
- [6] Chalupova, N. (2009). Prediction of customer behavior through datamining assets. *Acta Universitatis agriculture et silviculture Mendelianae Brunensis*, 57(3): 43–54.
- [7] Chalupova, N., Motycka, A. (2008). Situation and trends in trade-supporting information technologies. *Acta Universitatis agriculture et silviculture Mendelianae Brunensis*, 56(6): 25–36.
- [8] Darena, F. (2007). Global architecture of marketing information systems. *Agricultural Economics*, 52(9): 432–440.
- [9] Dařena, F. (2008). A research on CRM systems in the Czech Republic. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 56(2): 29–34.
- [10] Darena, F., Zizka, J., Prichystal, J. (2014). Clients' freely written assessment as the source of automatically mined opinions. In 17th International Conference on Enterprise and the Competitive Environment (ECE), pp. 103–110, Brno, Czech Republic, March 2014. [http://dx.doi.org/10.1016/S2212-5671\(14\)00325-6](http://dx.doi.org/10.1016/S2212-5671(14)00325-6)
- [11] Hajek, P., Olej, V., Myskova, R. (2014). Forecasting corporate financial performance using sentiment in annual reports for stakeholders' decision-making. *Technological and Economic Development of Economy*, 20 (4): 721–738. <http://dx.doi.org/10.3846/20294913.2014.979456>
- [12] Hajko, V., Birciakova, N. and Stavkova, J. (2014). The trends in the income distributions in the EU-27 countries: Measuring the differences. Conference Proceedings of the 32nd International Conference Mathematical Methods in Economics, 245–250.
- [13] Kiang, M.Y. (2003) A comparative assessment of classification methods. *Decision Support Systems*, 35(4): 441–454.
- [14] Konecny, V., Trenz, O. and Svobodova, E. (2010). Classification of companies with the assistance of self-learning neural networks. *Agricultural Economics - Zemedelska Ekonomika*, 56(2): 51–58.
- [15] Li, X., He, C. and Liatsis, P. (2010). A new robust classification method for CRM. APWCS 2010 - 2010 Asia-Pacific Conference on Wearable Computing Systems. 70–73.
- [16] Netopil, T., Antosova, V. and Turcinkova, J. (2014). Retirees: How do they choose their grocery store? How do they shop? 17th international conference enterprise and competitive environment 2014, *Book Series: Procedia Economics and Finance*, 12:480–488. [http://dx.doi.org/10.1016/S2212-5671\(14\)00370-0](http://dx.doi.org/10.1016/S2212-5671(14)00370-0)

- [17] Ngan, C.K. and Brodsky, A. (2013). Optimal event monitoring through internet mashup over multivariate time series. *International Journal of Decision Support System Technology*, 5(2): 46–69. <http://dx.doi.org/10.4018/jdsst.2013040104>.
- [18] Novotny, J. and Duspiva, P. (2014). Factors Influencing Consumers' Buying Behavior and their Importance for Enterprises. *E+M Ekonomie a Management*, 17(1): 152–166.
- [19] Ogwueleka, F.N., Misra, S., Colomo-Palacios, R. *et al.* (2015). Neural Network and Classification Approach in Identifying Customer Behavior in the Banking Sector: A Case Study of an International Bank. *Human Factors and Ergonomics in Manufacturing & Service Industries*, 25(1): 28–42, <http://dx.doi.org/10.1002/hfm.20398>
- [20] Popelka, O., Hrebicek, J., Stencl, M. *et al.* (2012). Comparison of different non-statistical classification methods. Proceedings of 30th International Conference Mathematical Methods In Economics, PTS I AND II, 727–732.
- [21] Skorpil, V. and Stastny, J. (2008). Comparison of Learning Algorithms. 24th Biennial Symposium on Communications. Kingston, CANADA, pp. 231–234.
- [22] Spangler, W.E., May, J.H. and Vargas, L.G (1999). Choosing Data-Mining Methods for Multiple Classification: Representational and Performance Measurement Implications for Decision Support. *Journal of Management Information Systems*, 16 (1): 37–62.
- [23] Stencl, M. and Stastny, J. (2010). Neural network learning algorithms comparison on numerical prediction of real data. MENDEL 2010, 16th International Conference on Soft Computing. Brno University of Technology, 280–285.
- [24] Tsai, C.-Y., Chen, C.-J. and Chien, C.-J. (2013). A time-interval sequence classification method. *Knowledge and Information Systems*, 37(2): 251–278. <http://dx.doi.org/10.1007/s10115-012-0501-1>
- [25] Tu, Y. and Yang, Z. (2013). An enhanced Customer Relationship Management Classification Framework with Partial Focus Feature Reduction. *Expert Systems with Applications*, 40(6): 2137–2146. <http://dx.doi.org/10.1016/j.eswa.2012.10.028>
- [26] Turcinek, P. and Motycka, A. (2013). Knowledge discovery on consumers' behaviour. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*. 61(7): 2893–2901. <http://dx.doi.org/10.11118/actaun.201361072893>
- [27] Turcinkova, J. and Stavkova, J. (2012). Does the Attained Level of Education Affect the Income Situation of Households? 3rd International Conference On New Horizons In Education - INTE. <http://dx.doi.org/j.sbspro.2012.09.595>
- [28] Turcinkova, J., Stavkova, J., Skalova, D. and Birciakova, N. (2014). Changes in Consumer Behavior in the EU after its Enlargement and due to the Economic Crisis. *Recent Advances in Economics, Management and Marketing*, 78-85.
- [29] Vildova, E., Martincik, D., Tluchor, J. *et al.* (2015). Measuring Customer Satisfaction and Loyalty in Spa Companies. *E+M Ekonomie a Management*, 18(1): 151–168. <http://dx.doi.org/10.15240/tul/001/2015-1-012>
- [30] Weinlichová, J. and Fejfar, J. (2010). Usage of self-organizing neural networks in evaluation of consumer behavior. *Acta Universitatis agriculture et silviculture Mendelianae Brunensis*, 58 (6): 625–632.
- [31] Weka (2015). Weka 3: Data Mining Software in Java. [on-line], Available at: <http://www.cs.waikato.ac.nz/ml/weka/> on-line [cited 2015-12-11]

Techoparks as an Actor of Regional Development: An Evaluation on Turkey

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Abstract

Technological advances are undoubtedly the playing the most significant and crucial role in today's competitive circumstances. For the last century, technology, along with land, labor, capital and entrepreneurship, has embedded itself in factors of production. Other than that, it has gained outweighed power on the other factors. To become a global competitive actor, regions need to produce high value created products by using their own technological power and innovativeness. Therefore, replicating or importing the existing technology is, to some extent, a consequence for developing countries to fall behind in development process in the long-run. In order to establish a sustainable development strategy, inventing the latest technology is inevitable. Technoparks are the intermediaries which transfers the university based research and educational power to the market needs and technology intensive industries. Thus, their importance on regional development in Turkey is examined and further recommendations are discussed.

Key words: technology, technoparks, regional development.

JEL Classification: E61, E66.

1. Introduction

First and second world wars obviously have shown that struggle among nations for having the vast portion of global welfare depends heavily on the technological advantage. In addition to that, aftermath of wars dramatically pave the ways of developing new technologies intensely in rising of nations.

In the preceding century the impact of technology- together with land, labor, capital and entrepreneurial abilities- embeds itself to the factors of production and radically reduce the significance of other factors. Workforce substitute with machinery and robotics and computers replaced human brain activities.

Regions compete globally to have the latest improvements because of previously mentioned motives. Therefore, technological advances and knowledge are needed to be conveyed among organizations, industries and regions. In literature, technology transfer is defined as the transferring of the technical knowledge which is absent or scarcely found in developing regions for setting up new businesses or production facilities which generate the technology into new products, processes, goods and services or applications.

Further recommendations

Administrator firms' presidents should be selected among groups who hold a minimum engineering or economics and administrative science bachelor degree with 2 years of experience of R&D financing. Presidents who are first time employed should be included to an orientation program by KOSGEB, TUBITAK and Technology Development Foundation of Turkey (TTGV). To encourage R&D implications and innovation, university-industry relationship empowerment and stimulate R&D and innovation projects for constructing a supply-demand dynamic within region as well as outside the region, administrator firms can give counseling services to private and public sector. Funding the new ideas and processes is in the responsibility of administrator firm. Thus, they need to be established with satisfied amount of initial capital. Providing cash to a project worth 50 million dollars with an administrator firm whose total asset value is 19 million dollars do not seem logical. Consequently, regional administrator firms should be established at least 600.000 dollars.

In Turkey, even though technoparks have a strong auto-control mechanism it is not easy to say that they have sufficient supportive mechanism. Particularly in early development phase, technoparks face with critical drawbacks due to limited financial support provided by ministry of science, industry and technology. Moreover, in incubation centers there is not also enough financial aid for novel and unique ideas. KOSGEB offers financial supports via TEKMER for R&D oriented firms however, coordination among KOSGEB and technoparks is needed to be urgently improved.

Practical innovative business ideas should be supported by venture capital and for further developing phase of the project, core capital service providers are needed to be established to afford monetary support. Innovative entrepreneurs prefer to cooperate with foreign investors outside the region and causes brain migration. For this reason, technoparks are financially needed to be more fortified. Inadequate supportive mechanisms can have serious consequences over sustainable regional development policies in long-run. Last but not least, mass production of a fruitful R&D project can encounter with impediments. According to incentive laws, R&D practices are only tax exempted in their initial development phase. After a successful result -which is a prototype- is produced, tax exclusions are terminated and results in a failure to commercialize. However, tax exclusions are not valid for software firms and 55% of their portion in is not coincidental in this context but, for mass production a successful project still requires incentives and regulations.

References

- [1] Audretsch, D. and Keilbach, M. (2005). Entrepreneurship capital and regional growth, *The Annals of Regional Science*, 39(3): 457-469.
- [2] Audretsch, D. and Keilbach, M. (2004). Entrepreneurship capital and economic performance, *Regional Studies*, 38 (8): 949-959.
- [3] Autio, E. and Laamanen, T. (1995). Measurement and Evaluation of Technology Transfer: Review of Technology Transfer Mechanisms and Indicators, *International Journal of Technology Transfer Management*, 10(6):643-664.
- [4] Chun, C.L. (2007). Modeling the Technology Transfer to Taiwan from China, *International Research Journal of Finance and Economics*, 7: 48-66.
- [5] Chung, W. (2001). Identifying Technology Transfer in Foreign Direct Investment: Influence of Industry Conditions and Investing Firm Motives, *Journal of International Business Studies*, 32 (2): 211-229.
- [6] Cornett, A. (2009). Aims and strategies in regional innovation and growth policy: A Danish perspective, *Entrepreneurship and Regional Development*, 21 (4): 399-420.
- [8] Naudé, W., Gries T., Wood, E. and Meintjies, A. (2008). Regional determinants of entrepreneurial start-ups in a developing country, *Entrepreneurship and Regional Development*, 20 (2): 111-124.
- [10] Shiowattana, P. (1991). Transfer of Japanese Technology and Management to the ASEAN Countries. Tokyo: University of Tokyo Press.
- [11] Solo, R.A. and Rogers, E. M. (1972). Inducing Technological Change for Economic Growth and Development East Lansing, Michigan State University Press.
- [12] Yaniktepe, B. and Çavuş, M.F. (2011). Investigation of policy and incentives on the industrial research and development in Turkey, *African Journal of Business Management* 5(22): 9214-9223.

- [13] Wahab, A., Rose, C. and Osman, S. (2012). Defining the Concepts of Technology and Technology Transfer: A Literature Analysis, *International Business Research*, 5(1): 61-71.
- *** Ministry of Science Industry and Technology, General Briefing. (2013). <http://sagm.sanayi.gov.tr/ServiceDetails.aspx?dataID=107> (29.04.2013).
- *** Presidency of Turkish Republic State Supervisory Board Report, (2009). Evaluation of Law no. 4691 for Technology Development Zones and Development of Solutions in Application Process.

Sustainability of Market Performance: Moderating Effect of Sustainable Competitive Advantage, Ownership Structure and Financing Decision - Evidence Privatized State-Owned Enterprises in Indonesia

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Abstract:

This study examines the effect of ownership structure on sustainability of market performance, the effect of financing decision on sustainability of market performance, the rule of sustainability competitive advantage as moderating effect ownership structure on sustainability of market performance and the rule of sustainability competitive advantage as moderating effect financing decision on sustainability of market performance. The method used in this research was saturated sampling in Indonesia's privatized soes period 2010-2014. This research results using SmartPLS were: 1) ownership structure had not significant influence to the sustainability of market performance; 2) financing decision had not significant influence to the sustainability of market performance, 3) sustainable competitive advantage as pure moderation influence ownership structure on sustainability of market performance, 4) sustainable competitive advantage as not moderation influence financing decision on sustainability of market performance.

Keywords: ownership structure, financing decision, sustainability competitive advantage (SCA), sustainability of market performance.

JEL Classification: G32.

1. Introduction

Privatization of state-owned enterprises has become a major phenomenon in the developed and developing countries. This causes significant changes in the ownership structure of companies worldwide (Boubakri *et al.* 2005). According to D'Souza *et al.* (2005) a fundamental change as a result of privatization is the change of ownership. Change of ownership led to changes in corporate governance. According to Jensen, and Meckling (1976), the structure of corporate ownership has a relation with the corporate governance and affecting it positively or negatively. The ownership structure of Go Public State-owned enterprise consists of State ownership and public ownership. The possibility of public ownership can be in the form of employee ownership, foreign ownership, institutional ownership, or managerial ownership.

Previous studies about the effect of state-owned enterprises privatization on the market performance are carried out by Boutchkova, and Megginson (2000) and Boubakri, and Hamza (2007). The findings prove that privatization may result in the improvement of corporate's market performance. Research conducted by Megginson, and Sutter (2006) finds that governments of emerging market countries will launch a privatization program through the sale of shares as a way to develop the capital market. On the other hand, the contrary result found by Vera, and Ugedo (2007), Bhaumik *et al.* (2010) they meet a negative relationship between the ownership structure to the company's financial performance. Other researchers found that ownership structure does not significantly influence the market performance (Lubis 2010).

The Privatization of State-Owned Enterprises through the sale of shares to the capital market is expected to improve financial performance, which in turn will become a source of creation of conditions for a sustainable competitive advantage (SCA). The previous researchs of SCA are conducted by Barney (1991), Rose, and Thomsen (2004). These findings indicate that good corporate reputations will have intangible asset characteristics. When the company has had the resources and capabilities that are irreplaceable and can't be replicated, the company will select and implement strategies to earn above-average profits. Other resource needed by SCA is funding. The financial decision concept has become important for companies in determining the sources of funding, as it will affect the pattern of financing in company's activity.

Each financial decision taken will affect other financial decisions that will impact on the value of the company (Fama and French 1998) in the end. Some theories have emerged to explain the differences in funding

decisions for any company. The most famous Capital structure theory is the asymmetric information and signaling theory, the pecking order theory and the trade-offs theory. Empirical researches on the effect of funding decisions on the value of the company still haven't shown a consistent result. As (Bernadi 2007, Hasnawati 2005a, 2005b) concluded that the funding decisions have a significant and positive effect on firm value. But other studies such as Sudjoko (2007), Umrie *et al.* (2010), Yuliani (2011) concluded that the funding decisions do not significantly affect the value of the company. These contradictory results are referenced in financial research such as Fama, and French (1997), which explained that the debt has a negative correlation to the value of the company. The preceding study of Modigliani and Miller (1958) proposes some propositions concluding that the capital structure is irrelevant in affecting the value of the company.

Conclusion

Based on test results throughout the hypothesis, then the overall research is only able to prove the role of sustainable competitive advantage as pure moderation between the public ownership structure and market performance sustainability. Therefore the change in the public ownership structure followed by a sustainable competitive advantage can improve the market performance sustainability. Moderation role of sustainable competitive advantage toward financing decisions and market performance sustainability is found as not significant, so do the direct influence between the ownership structure, financing decisions towards market performance sustainability.

References

- [1] Ambarwati, S.D.A., Himah, K. (2014). Hubungan Struktur Kepemilikan, Tingkat Utang, Dividen dan Nilai Perusahaan dalam Mengurangi Konflik Keagenan di Indonesia. *Jurnal Keuangan dan Perbankan*. 18(1): 29-39.
- [2] Amihud, Y. and Lev, B. (1981). Does Corporate Ownership Structure Affects Its Strategy Towards Diversification? *Strategic Management Journal*, 20 (11): 1063-1069.
- [3] Barney, J. (1991). Firm Resources and Sustained Competitive Advantage, *Journal of Management*, 17(1): 99-120.
- [4] Barney, J. (2002). Gaining and Sustaining Competitive Advantage, Second Edition, Prentice Hall.
- [5] Bernadi, K.J. (2007). Analisis Pengaruh Cashflow dan Kebijakan Pecking Order Terhadap Leverage dan Investasi serta Dampaknya Terhadap Nilai Perusahaan (Studi Pada Perusahaan-Perusahaan Sektor Manufaktur). Disertasi. Program Pascasarjana Universitas Brawijaya.
- [6] Bhaumik, S.K, Driffield, N. and Pal, S. (2010). Does Ownership Structure of Emerging-Market Firms Affect Their Outward FDI? The Case of the Indian Automotive and Pharmaceutical Sectors. *Journal of International Business Studies*, 41: 437-450.
- [7] Boubakri, N., Cosset, J-C., Fischer, K. and Guadhami, O. (2005). Privatization and Bank Performance in Developing Countries, *Journal of Banking & Finance*, 20(8-9): 2015-2041.
- [8] Boubakri, N. and Hamza, O. (2007). The Dynamics of Privatization, the Legal Environmental and Stock Market Development, *International Review of Financial Analysis*, 16(4): 304-331.
- [9] Boutchkova, M.K. and Megginson, W.L. (2000). Privatization and the Rise of Global Capital Markets, *Financial Management*, 29(4): 31-76.
- [10] Chevalier, J.A. (1995). Capital Structure and Product-Market Competition: Empirical Evidence from the Supermarket Industry, *The American Economic Review*, 85(3): 415-435.
- [11] David, F.R. (2010). *Strategic Management: Concepts and Cases*. 8th Edition, International Edition, Prentice Hall Pearson Education, Inc. Upper Saddle River: New Jersey.
- [12] D'Souza, J., Megginson, W. and Nash, R. (2005). Effect of Institutional and Firm-specific Characteristics on Post-Privatization Performance: Evidence from Developed Countries, *Journal of Corporate Finance*, 11(5): 747-766.
- [13] Ediningsih, Sri. I., Nilmawati, Sukendro, J. (2014). Utang dan Pengaruhnya terhadap Kinerja Perusahaan, *Jurnal Keuangan dan Perbankan*, 18 (1): 52-62.
- [14] Fama, E. F. and French, K. R. (1998). Taxes, Financing Decisions, and Firm Value, *The Journal of Finance*. 53(3): 819-843.
- [15] Fama, E. F. and French, K. R. (1997). Industry Costs of Equity, *Journal of Financial Economics*, 43: 153-193.
- [16] Grosfeld, I. (2006). Ownership Concentration and Firm Performance: Evidence from an Emerging Market, *Social Science Research Network Paper Collection*. <http://www.ssrn.com/Abstract-id924588>
- [17] Hanafi, M. (2005). *Manajemen Keuangan*. Edisi 2004/2005. BPFE: Yogyakarta.

- [18] Hasnawati, S. (2005a). Implikasi Keputusan Investasi, Pendanaan dan Dividen Terhadap Nilai Perusahaan Publik di Bursa Efek Jakarta. *Usahawan Indonesia*. No.09 TH XXXIV: 33-41.
- [19] Hasnawati, S. (2005b). Dampak Set Peluang Investasi Terhadap Nilai Perusahaan Publik di Bursa Efek Jakarta, *Jurnal AAI*. 9(2): 117-126.
- [20] Hovey, M. (2005). Corporate Governance in China: An Analysis of Ownership Changes after the 1997 Announcement. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=811105
- [21] Jensen, M. C. and Meckling, W.H. (1976). Theory of the Firm: Managerial Behavior, Agency Cost and Ownership Structure. *Journal of Financial Economics*, 3 (4): 305-360.
- [22] Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Take overs. *American Economic Review*, 76(2): 323-329.
- [23] Lane, P., Cannella, J., Lubatkin, A.A., Michael, H. (1998). Agency Problem as Antecedents to Unrelated Mergers and Diversification: Amihud and Lev Considered. *Strategic Management Journal*, 19(6): 555-578.
- [24] Lubis, T.A. (2010). Pengaruh Struktur Kepemilikan Terhadap Kinerja Finansial dan Operasional, Keunggulan Daya Saing Berkelanjutan Berdasarkan Reputasi Ukuran Akuntansi, dan Kinerja Pasar (Studi pada BUMN Tbk). Ringkasan Disertasi, Program Doktor Ilmu Manajemen Universitas Brawijaya: Malang.
- [25] Kallapur, S. and Trombley, M. A. (1999). The Association between Investment Opportunity Set Proxies and Realized Growth, *Journal of Business Finance & Accounting*, 26 (3 & 4): 505-519.
- [26] Leech, D. and Leahy, J. (1991) Ownership Structure, Control Type Classifications and the Peerformance of Large British Companies, *Economic Journal*, 101(409): 1418-1437.
- [27] Megginson, W.L. and Sutter, N.L (2006). Privatisation in Developing Countries. *Corporate Governance: An International Review*. 14(4): 234-265.
- [28] Modigliani, F. and Miller, M.H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment, *The American Economic Review*. 48(3): 261-297.
- [29] Murwaningsari, E. (2014). Kepemilikan Institusional dan Kualitas Audit terhadap Pengungkapan Informasi dan Future Earnings Response Coefficient, *Jurnal Keuangan dan Perbankan*, 18 (2): 161-171.
- [30] Pearce, J. A. and Robinson, R.B. (2011). Strategic Management: Formulation, Implementation and Control. Sixth Edition Irwin. The McGraw-Hill Companies, Inc.
- [31] Porter, M. E. (1980). Competitive Strategy Techniques for Analyzing Industries and Competitors. The Free Press. New York.
- [32] Porter, M. E.. (1990). Competitive Strategy. Agus Maulana MSM (Penerjemah). Strategi Bersaing Teknik Menganalisis Industri dan Pesaing. Erlangga.
- [33] Rose, C. and Thomsen, S. (2004). The Impact of Corporate Reputation on Performance: Some Danish Evidence, *European Management Journal*, 22(2): 201-210.
- [34] Rumelt, R. P. (1974). Strategy, Structure, and Economic Performance, Harvard Business School Classic.
- [35] Setiadi, R. K. and Gandakusuma, I. (2015). Analisis Determinan Struktur Modal Perusahaan Sektor Properti dan Real Estate, *Manajemen Usahawan Indonesia*, 44(1): 1-17.
- [36] Shleifer, A. and Vishny, R. W. (1997). A Survey of Corporate Governance, *The Journal of Finance*, 52 (2): 737-783.
- [37] Siahaan, F. O.P. (2013). Struktur Perusahaan dan Profitabilitas pada Industri *Real Estate* dan *Property* di Indonesia. *Jurnal Keuangan dan Perbankan*, 17(2): 192-199.
- [38] Slovin, M.B. and Sushka, M. E. (1993). Ownership Concentration, Corporate Control Activity, and Firm Value: Evidence from the Death of Inside Blockholders, *The Journal of Finance*, 48(4): 1293-1321.
- [39] Solimun (2010). Analisis Multivariat Pemodelan Struktural Metode *Partial Least Square*- PLS. Penerbit CV. Citra: Malang.

- [40] Sujoko (2007). Pengaruh Struktur Kepemilikan Saham, Strategi Diversifikasi, Leverage, Faktor Intern dan Faktor Ekstern terhadap Nilai Perusahaan. Ringkasan Disertasi. Program Pascasarjana Universitas Brawijaya.
- [41] Sujono (2013). Determinan Struktur Modal, Inovasi dan Nilai Perusahaan (Studi pada Industri Manufaktur di Bursa Efek Indonesia). Ringkasan Disertasi. Universitas Brawijaya, Malang.
- [42] Suta, I. P. G. A. (2005). Kinerja Pasar Perusahaan Publik di Indonesia: Suatu Analisis Reputasi Perusahaan. Disertasi telah diterbitkan. Penerbit Yayasan SAD Satria Bhakti. Jakarta: Indonesia.
- [43] Umrie, HS. R., Yuliani and Cahyadi, A. (2011). Analisis Kebijakan Dividen dan Kebijakan Hutang terhadap Nilai Perusahaan Go Publik di Indonesia, *Jurnal Manajemen & Bisnis Sriwijaya*, 9(17): 13-32.
- [44] Vera, A.M., Ugedo, J.F.M. (2007). Does Ownership Structure Affect Value? A Panel Data Analysis for the Spanish Market, *International Review of Financial Analysis*, 16(1): 81-98.
- [45] Wallace, W.A. and Cravens, K.S. (1997). Evaluating Control Risk from a Corporate Governance Perspective, *Managerial Finance*, 23(12): 22-37.
- [46] Wahyudi, U. and Pawestri, H.P. (2006). Implikasi Struktur Kepemilikan terhadap Nilai Perusahaan: dengan Keputusan Keuangan sebagai Variabel Intervening. *Simposium Nasional Akuntansi 9: Sumatera Barat, Padang*.
- [47] Wernerfelt, B. and Montgomery, C. A. (1988). Tobin's q and the Importance of Focus Performance, *The American Economic Review*, 78(1): 246-250.
- [48] Yermack, D. (1996). Higher Market Valuation of Companies with a Small Board of Directors, *Journal of Financial Economics*, 40 (2): 185-211.
- [49] Yuliani (2011). Leverage, Size and Age Mediating Business Diversified to Financial Performance: Empirical Studies of Secondary Sectors in Indonesian Stock Exchange. *Proceeding of The 2nd International Conference Indonesian Management Scientists Association*. Pekanbaru Riau. 2-4 December, pp. 195-212.
- [50] Yuliani, Muizuddin (2014). Kepemilikan *Blockholder*, *Investment Opportunity Set*, Rasio Likuiditas dan Nilai Perusahaan, *Jurnal Keuangan dan Perbankan*, 18 (2): 223-232.

Evaluating the Effectiveness of Investment in the Regional Infrastructure from the Perspective of Infrastructure Marketing

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Abstract

The article describes the methodological approach for evaluating investments in the regional infrastructure from the perspective of infrastructure marketing, which in contrast to the existing approaches allows to consider the development of infrastructural components of the region taking into account an appropriate strategy of territorial marketing as a driving or "binding" force of the competitiveness of the region and its investment attractiveness. The necessity of the use of the infrastructure marketing as a tool of strategic planning in the region is defined. The method of assessment of infrastructural components of the region is suggested; the method was tested on the materials of the Republic of Buryatia. The causal relationship between investments in infrastructure components and their impact on the socioeconomic situation of the region was also defined.

Key words: investments, infrastructure components, territorial marketing, infrastructure marketing, socioeconomic situation of the region.

JEL Classification: E22, F21, P45.

1. Introduction

Recent changes in the international economic and political systems form new conditions for further development of the economy in the country as a whole and regions in particular, thereby focusing on finding new ways to ensure its competitiveness. The implementation of this task is impossible without a comprehensive approach to assessing the strategizing of socioeconomic development of the region, which includes the selection of the regional development strategy based on a strategic analysis that takes into account the specifics, advantages and disadvantages, as well as opportunities in the region aimed to improve its competitiveness and investment appeal.

It may be noted that the region is competitive if it has properties that create its advantages as the subject of the national market through the effective use of all territorial resources, in order to achieve sustainable economic growth, increase in the level and quality of life. Under these conditions, one of the important factors contributing to the further development of the regional economy (in this case, the Republic of Buryatia) will be the attraction of investments that determine economic growth and improve the competitiveness of its economy.

The issue of evaluation of investment attractiveness of the region should be considered from the perspective of territorial marketing. The territorial marketing serves as an advanced tool to identify, support and develop the existing strengths determined by the competitiveness of the region's economic sectors, industries, and formed clusters in terms of their territorial location (proximity to external borders, presence of air and rail links, etc.), which gives them an advantage.

It should be noted that the viability and sustainability of the regional socioeconomic system are determined by the level of development of its infrastructure, as well as its reliability. Of course, the issue of development of infrastructure components, such as manufacturing, resource and raw material, institutional, cultural, social and market attracts a lot of attention, but nevertheless achieving the performance targets of socioeconomic development of the region is impossible without due attention to them in terms of infrastructure marketing. The current stage of development of economic science is characterized by a lack of theoretical, methodological and

practical approaches to the study of infrastructure marketing. Most authors consider infrastructural complex as an integral system, without singling out and analyzing its componentwise composition. In addition, the current literature lacks uniform approach to the evaluation of the infrastructure complex of the socioeconomic system of the region, and there are virtually no approaches to evaluating the effectiveness of the regional infrastructure marketing. We propose to assess the effectiveness of application of the regional infrastructure marketing through the evaluation of the effectiveness of investments in the regional infrastructure.

Conclusion

Finding ways to increase the competitiveness of the economy predetermines the objective necessity of taking into account territorial, economic and social characteristics of the regions. The concept of territorial marketing allows reveal the key indicators of regional development in the structure of the main components of infrastructure. The proposed method of evaluation of the effectiveness of investment was tested for the following elements of infrastructure development: agroindustrial complex, mining and building industries for the production infrastructure, education and health – for social infrastructure. The toolkit for econometric modeling revealed the instantaneous nature of the impact of infrastructure changes on the economic system of the region. Correlation analysis showed a strong correlation between the value of the gross regional product and the lag variables, which is characteristic only for investment in education and mining industry. The weak impact of investment on the value of the gross regional product is due to the absence of large-scale investment projects implemented over the analyzed period. The investments were usually short-term and focused on retention of the achieved position. In addition, influence of education and healthcare system on the value of GRP remains significant. It should be noted that investments in education show a more lasting effect, in contrast to investments in healthcare.

References

- [1] Bondarenko, V. (2007). Marketing of territories: aspects of the financial attractiveness of investing in territorial infrastructure. *Practical Marketing*, 3: 14.
- [2] Dinis, A. (2003). Rural entrepreneurship: An Innovation and Marketing Perspective, Communication. Proceedings of the International Conference: Small Firms Strategy for Innovation and Regional Problems, Universida de Algarve.
- [3] Funke, U. (1998). Methodological bases of urban development concepts. Eurograd, 10.
- [4] Korotchenko, A.S. (2010). Correlation and regression analysis of the impact of investment activity on the growth of gross regional product of the Kaliningrad region. Herald of Baltic Federal University, 3/2010.
- [5] Kotler, F., Jatusripitak S. and Maescincee, S. (1997). The marketing of nations: a strategic approach to building national wealth. New York: Free Press, pp: 451.
- [6] Kotler, P., Asplund, C., Rein, I. and Haider, D. (2005). Marketing Places: How to Attract Investments, Industries, Residents and Visitors to Cities, Communities, Regions and Nations in Europe. St Petersburg: Stockholm School of Economics, pp: 376.
- [7] Lavrov, A.M. and Surnin V.S. (1994). Reforming the Economy: Regional Aspects 4.2. Regional marketing and development trends. Kemerovo, Kuzbassvuzizdat.
- [8] Lobanov, V. (1994). Marketing in public administration. *Problems of Management Theory and Practice*, 4.
- [9] Malinovskaya, N.A. (2011). Methods of assessing the regional infrastructure complex. *Scientific and Technical Journal of SpbSTU*, 4: 5.
- [10] Malinovskaya, N.A. (2011). Research of the regional infrastructure complex. Russian Entrepreneurship, 2(192), 9: 82-86. Date Views: 12.11.2015 <http://www.creativeconomy.ru/articles/13777>
- [11] Meer, J. van der. (1992). The role of city marketing in urban management. Rotterdam: EURICUR. Erasmus University.
- [12] Pankrukhin, A.P. (2002). Marketing of territories: Study guide. Moscow: Publ. RAGS, 42.
- [13] Romanov, A.N. et al. (1995). Marketing: Textbook. Banks and Stock Exchanges. Moscow: UNITY, 479-485.
- [14] Sharipova, E. (2013). Analytical materials. How to start a conveyer of long-term investment in infrastructure? Role of institutional investors. Date Views: 15.11.2015 <http://www.pppinrussia.ru/userfiles/upload/files/FINAL%20DOKLAD2-A4.pdf>.
- [15] Startsev, Yu.N. (2004). Territorial Marketing: study guide. Chelyabinsk: ChSU.
- [16] Vanchikova, E.N. (2012). Evaluation of the implementation of socioeconomic development of the region. Bulletin of UMO. *Economics, Statistics and Informatics*, 4.

- [17] Vanchikova, E.N. (2012). Evaluation of the implementation of socioeconomic development of the region. *Bulletin of UMO. Economics, Statistics and Informatics*, 4.
- [18] Volkov, S.K. (2014). Marketing of infrastructure as a prerequisite for the effective development of the territories in modern Russia. *Modern Science-Intensive Technologies. Regional Supplement*, 3(39).
- [19] Voronin, V.G. and Tselyh T.N. (2011). On the issue of the nature of territorial marketing. *Problems of Modern Economics: Problems of Marketing. Logistics*, 4(40).
- [20] Wooley, H. (2000). Town centre management awareness: an aid to developing young people's citizenship. *Cities*, 17.

