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**The Comparison of the Global  
Entrepreneurship Monitor and  
the Global Entrepreneurship  
and Development Index  
Methodologies**

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# The Comparison of the Global Entrepreneurship Monitor and the Global Entrepreneurship and Development Index Methodologies

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**László Szerb**

*University of Pécs, Hungary  
szerb@ktk.pte.hu*

**Ruta Aidis**

*George Mason University, USA  
raidis@gmu.edu*

**Zoltan J. Acs**

*George Mason University, USA  
zacs@gmu.edu*

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## The Comparison of the Global Entrepreneurship Monitor and the Global Entrepreneurship and Development Index Methodologies

László Szerb<sup>1</sup>, Ruta Aidis<sup>2</sup>  
and Zoltan J. Acs<sup>3</sup>

<sup>1</sup> *University of Pécs, Faculty of Business and Economics, Pécs, Rákóczi 80, H-7622, Hungary, szerb@tkk.pte.hu*

<sup>2</sup> *School of Public Policy, George Mason University, Fairfax, VA 22030, USA, raidis@gmu.edu*

<sup>3</sup> *School of Public Policy, George Mason University, Fairfax, VA 22030, USA, zacs@gmu.edu*

### Abstract

The Comparison of the Global Entrepreneurship Monitor (GEM) and the Global Entrepreneurship and Development (GEDI) Index Methodologies has four aims: (1) to provide a comprehensive comparison of the GEM and GEDI approaches by using both methods side by side to analyze entrepreneurship development; (2) to offer the GEM community a useful example on how the GEM and the GEDI methodologies can be successfully combined to allow for a more in-depth country analysis of entrepreneurial performance; (3) to provide a comprehensive summary of Hungary's entrepreneurial performance from 2006 to 2010; and (4) to demonstrate the policy applications of the GEDI Index.

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# 1

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## Introduction<sup>1</sup>

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In 2008, Zoltan J. Acs and László Szerb, both members of the Global Entrepreneurship Monitor's (GEM) Hungary team, began to work on a new research initiative focused on creating a policy tool based on GEM data. This initial attempt has turned into a growing research project now called the Global Entrepreneurship and Development Index (GEDI). While both GEM and GEDI share the same framework and theoretical basis, many GEM team members and researchers often view GEM and GEDI as completely different, and at times, competing and mutually exclusive approaches. We believe that the GEDI approach is an especially useful addition for GEM reports since it includes a policy development focus which has been traditionally missing from GEM-based analyses.

This GEM–GEDI Hungary analysis has four aims. The first aim of this report is to provide a comprehensive comparison of the GEM and GEDI approaches by using both methods side by side to analyze entrepreneurship development in Hungary from 2006 to 2010. The

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<sup>1</sup>Disclaimer: The following analysis, statements, interpretations and conclusions represented in this study are those of the authors. They do not necessary reflect the view of any of the Hungarian or foreign institutions, and ministries supporting the GEM Hungary research, OTKA, the GERA Board, or any of the GEM national teams.

## 2 *Introduction*

second aim of this report is to offer the GEM community a useful example on how the GEM and the GEDI methodologies can be successfully combined to allow for a more in-depth country analysis of entrepreneurial performance.

In this report, our analysis focuses on Hungary. Hungary joined the Global Entrepreneurship Monitor (GEM) research community in 2001. Since then, Hungary has participated annually in the GEM survey (except for one missed year in 2003). Initially, Hungary produced executive reports on an annual basis (Acs et al., 2002, 2004). In 2005, a detailed summary for Hungary was compiled based on GEM data (Szerb, 2005). Though no formal report was produced, a conference paper was written based on GEM Hungary data for 2006 (Szerb, 2006), and for 2008 (Szerb and Acs, 2010). The third aim of this study is to fill this gap by providing a comprehensive summary of Hungary's entrepreneurial performance from 2006 to 2010. This is also an interesting period to compare since the first three years capture precrisis Hungary, while the last two years show Hungary during and after the global economic crisis.

The fourth aim of this report is to demonstrate the policy applications of the GEDI Index. While GEDI is not a magic silver bullet for solving all of a country's problems, it is a particularly useful tool for policy-oriented analysis. First, it makes possible to determine the overall entrepreneurial performance of a country. GEDI is the first complex, systems-based, comprehensive measure of entrepreneurship based on three subindexes, fourteen pillars, and twenty-eight variables. Secondly, a country's entrepreneurial performance can be compared to other countries and country groups as well as viewed over time. In this study, Hungary's GEDI score and the three subindexes will be examined in relation to its development, to all the other 78 countries participating in the GEDI, and specifically to three-country groups for two time periods. Thirdly, the pillar and variable-level analysis provide an in-depth detailed view of the entrepreneurial strengths and weaknesses for a particular country. Further, it is possible to pinpoint performance based on either the individual or the institutional component of a particular pillar. In the case of Hungary, the weak entrepreneurial performance is associated mainly with the shortcomings of specific individual

variables. Fourthly, unlike other research projects that provide rather general and uniform policy suggestions, GEDI offers individual country level, tailor-made policy recommendations. Based on the principle of the weakest link, we are presenting an optimal policy mix for Hungary involving the eight weakest performing pillars. Fifthly, GEDI makes it possible to calculate how additional efforts should be distributed in order to provide the greatest increase to entrepreneurship performance. For Hungary, variables in eight pillars need to be improved in order to attain a 0.1 increase in the GEDI score resulting in a ranking for Hungary on par with the Czech Republic (24th place).

Our initial intention was to write a simple GEM report incorporating the GEDI approach. However, we soon realized that it was also important not only to present but also to compare the GEM and GEDI approaches since no such comparison currently exists. Furthermore, we also thought it important to include an example of a GEDI-based country analysis and policy recommendations. This has resulted in a rather technical and descriptive report that is over 100 pages long and took over 10 months to compile, a document that resembles a monograph more than a usual GEM report.

This report study is structured as follows: Section 2 lays down the theoretical basis of the analysis covering relevant definitions, concepts, and measures of entrepreneurship. This section also presents a comparative view of the GEM and GEDI methodologies, aims, strengths and limitations for entrepreneurship policy development. While GEM and its major indicator, the Total Entrepreneurial Activity (TEA) index help explain short-term economic growth, GEDI focuses on the connection between entrepreneurship and long-term economic development.

Section 3 provides an in-depth presentation of the individual aspects of entrepreneurship based on three entrepreneurial aspects: Entrepreneurial Attitudes, Entrepreneurial Activities, and Entrepreneurial Aspirations. It compares and analyzes the measures used by GEM and GEDI and applies them to Hungary and the three comparison country groups (Transitional countries, CEE countries, and European Innovation Leader countries) for 2006–2010. Altogether 21 variables are described: seven for Entrepreneurial Attitudes, nine for Entrepreneurial Activity, and five for Entrepreneurial Aspirations.

#### 4 *Introduction*

Section 4 follows the same structure as Section 3 and focuses on institutional measures for entrepreneurship. In this case we analyze 32 institutional variables, 11 for Entrepreneurial Attitudes, 11 for Entrepreneurial Activity, and 10 for Entrepreneurial Aspirations. In both Section 3 and 4, we distinguish between the results according to the 2006–2008 (precrisis) and the 2009–2010 (crisis and postcrisis) periods.

Finally, Section 5 focuses on providing specific policy recommendations for Hungary. The policy suggestions are based on an analysis of the individual and the institutional variables presented in Sections 3 and 4, and applying the Penalty for Bottleneck (PFB) and Overall Bottleneck Measure (OBM) methodologies. We classify Hungary's 14 GEDI pillars into four categories in terms of top policy priority, which denote Hungary's main bottlenecks, high policy priority, medium policy priority and low policy priority. We also provide an optimal policy mix for Hungary that includes the improvement of the eight worst performing pillars to reach a 0.1 increase in the GEDI index value. GEDI's findings are then compared to two major documents representing Hungary's entrepreneurship policy aims in 2007 and in 2010.

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