

# The 2012 Global Entrepreneurship and Development Index (GEDI): Perspectives from the Americas

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## Introduction

How is entrepreneurship important for economic growth? The answer to this question was given years ago by Robert Solow. Capital and labor are important but they only explain a fraction of economic growth. What explains the rest has been in part a mystery. However, we know from Douglas North that institutions matter. Institutions provide the incentive structure for economic agents. We know from Joseph Schumpeter that these agents create new organizations that introduce new product and process innovations to the economy—the process of creative destruction. Combining institutional incentives, organizational creation and entrepreneurship gives us economic growth. Entrepreneurship explains the missing piece of the economic growth puzzle. But how much of it do we have in the world? Is entrepreneurship going up or down?

## GEDI

The mission of the Global Entrepreneurship and Development Index (GEDI) is to provide a detailed look into the entrepreneurial character of nations and tell us how much entrepreneurship the world has. This composite index, which includes both country-level institutional data and organization building gives policymakers a tool that helps them understand the entrepreneurial strengths and weaknesses of their countries' economies, and thereby enables them to implement policies that foster productive entrepreneurship. GEDI is an entrepreneurial barometer.

GEDI is not a simple count of, say, new firm registrations, nor is it an exercise in policy benchmarking. The index also does not focus exclusively on high-growth entrepreneurship, but it does consider the characteristics of productivity-enhancing entrepreneurship, which is innovative, market expanding, often (but not always) growth oriented, and has an international outlook. Because entrepreneurship can have both economic and social consequences for the individual and because the individual engenders entrepreneurship, the GEDI also captures attitudes and aspirations, as well as individual-level entrepreneurial activities.

*The most interesting findings of the 2012 GEDI are:*

- *The drivers of productive entrepreneurship have deteriorated globally.* On a scale of 0.0 to 1.0, the quality of the drivers of productive entrepreneurship declined from 0.67 to 0.60, about a 10 percent drop between 2010 and 2011.
- *While entrepreneurship has fallen in most countries it has fallen less in the United States and therefore the U.S. leads the index in 2012.* However, the world as a whole is operating at about 30% of its entrepreneurial capacity.
- *In almost all countries high-growth entrepreneurship has suffered the most.* If we would focus on improving high impact entrepreneurial capacity by improving institutions and organization building we could greatly increase economic growth.

The financial crisis, the housing crisis, and the great recession have taken a terrible toll on individuals, the economy, and society all around the world. And if entrepreneurship is considered important for economic growth, then the crisis has inflicted great damage.

When contrasting the ranks of the 10 most entrepreneurial countries in 2012 with their respective ranking in 2011 a large drop is observed that is likely a reflection of the deteriorating institutional conditions in the world of the wealthy. As shown in Table 1, Denmark dropped from 1<sup>st</sup> place to 5<sup>th</sup>, while Belgium rose from 12<sup>th</sup> to 8<sup>th</sup> place. Australia, which moved into the top 10 from 11<sup>th</sup> place, has become a strong performer over the years, avoiding the financial crisis, housing bubble, and the great recession. The top 10 this year is again dominated by Anglo Saxon countries (United States, Australia, Canada), Scandinavian countries (Sweden, Iceland, Denmark, and Norway), and northern Europe (Switzerland, Belgium, and the Netherlands). Taiwan tied for 10<sup>th</sup> place on the 2012 GEDI—the first Asian country among the top 10 most entrepreneurial economies in the world.

**Table 1: The 10 Most Entrepreneurial Countries' in 2012 and their Rankings in 2011**

<b>Country</b>	<b>GEDI 2011</b>	<b>Rank 2011</b>	<b>GEDI 2012</b>	<b>Rank 2012</b>
United States	0.64	3	0.60	1
Sweden	0.59	5	0.57	2
Australia	0.51	11	0.56	3
Iceland	0.57	6	0.55	4
Denmark	0.67	1	0.55	5
Canada	0.65	2	0.54	6
Switzerland	0.56	7	0.54	7
Belgium	0.50	12	0.50	8
Norway	0.53	10	0.49	9
Netherlands	0.54	8	0.48	10
Taiwan	-	-	0.48	10

While the levels of “necessity” entrepreneurship have increased during the great recession, deteriorating institutional conditions mean that the global potential to produce productivity-enhancing entrepreneurs has fallen worldwide. We need more high growth entrepreneurs.

The GEDI defines entrepreneurship as “a dynamic interaction of entrepreneurial attitudes, entrepreneurial action, and entrepreneurial aspiration that vary across stages of economic development.” GEDI’s three sub-indexes capture these three dimensions of entrepreneurship. The action and aspiration sub-indexes (outlined below) capture actual entrepreneurship action and aspiration as they relate to nascent and startup business activities, while the entrepreneurial attitude (ATT) sub-index aims to identify the attitudes of a country’s population as they relate to entrepreneurship.

For example, the pillar known as opportunity perception potential is essential to recognizing and exploring novel business opportunities. It is also critical to have the proper startup skills and personal networks to exploit these opportunities. Moreover, fear of failure to start a business can have a negative effect on entrepreneurial attitudes, even when opportunity recognition and startup skills exist. Entrepreneurial attitudes are believed to be influenced by the crucial institutional factors of market size, level of education, the riskiness of a country in general, the

population's rate of use of the Internet, and culture, all of which enter the indicator as interaction variables.

The entrepreneurial action (ACT) sub-index is principally concerned with measuring startup action with high growth potential. This high growth potential is approached by quality measures, including opportunity motivation for startups that belong to a technology-intensive sector, the entrepreneur's level of education, and the level of competition. The institutional variables include the business freedom, the technology adsorption capability, the extent of staff training, and the dominance of powerful business groups in business.

The entrepreneurial aspiration (ASP) sub-index refers to the distinctive, qualitative, strategy-related nature of entrepreneurial action. Entrepreneurial businesses are different from regularly managed business, thus it is particularly important to be able to identify the most relevant institutional and other quality-related interaction variables. The newness of a product and of technology, internationalization, high growth ambitions, and finance variables are included in this sub-index. The institutional variables measure the R&D potential, the sophistication of a business and of innovation, the level of globalization, and the availability of venture capital.

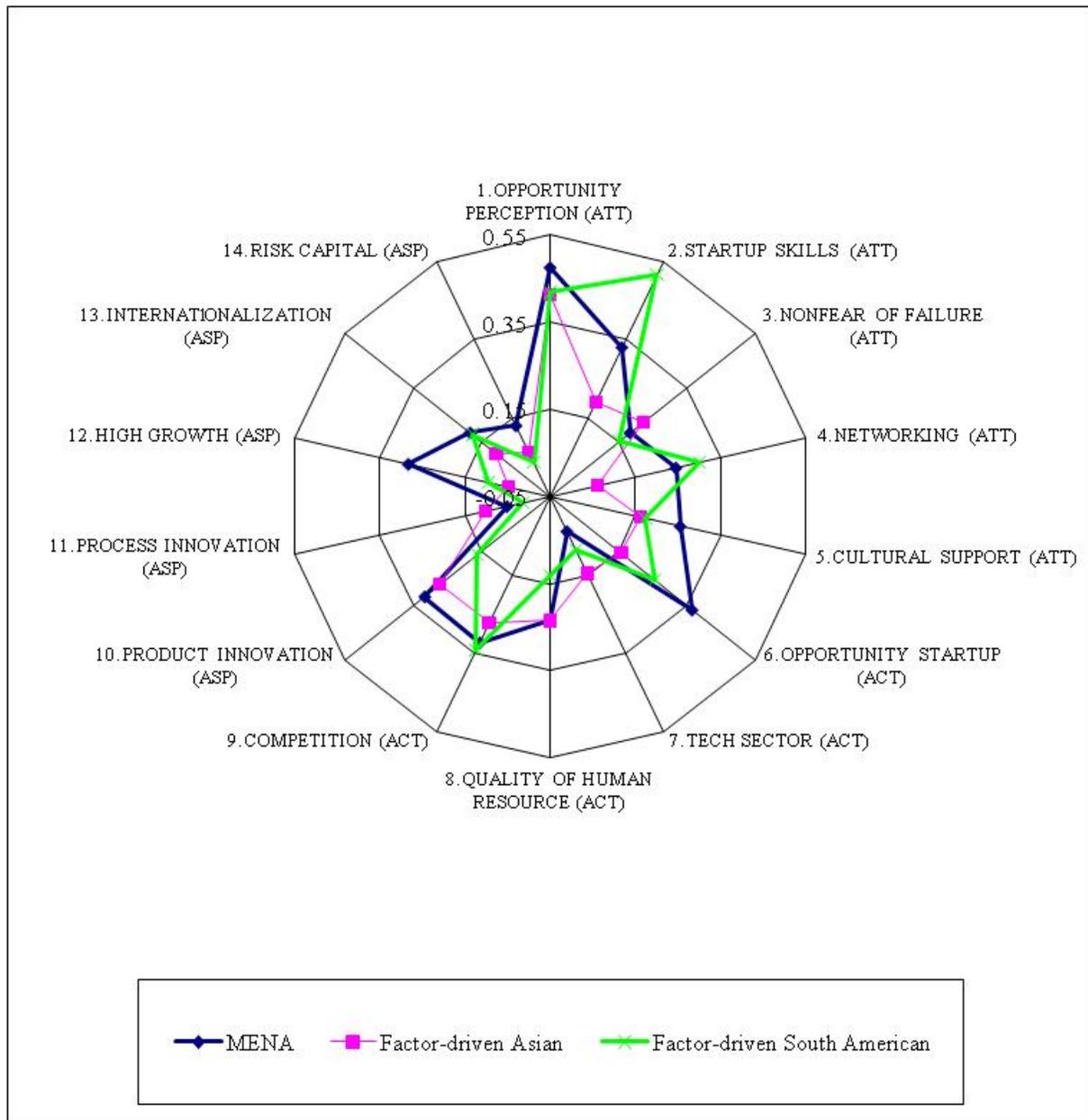
### **The GEDI in Latin America & Caribbean**

Latin America and the Caribbean (LAC) present an interesting contrast between developed and developing countries. When compared to the Middle East and North Africa (MENA) factor-driven economies, LAC factor-driven economies receive lower relative rankings in all but three aspects of entrepreneurship in which the region performs relatively better: the attitude-related pillars of STARTUP SKILLS and NETWORKING, and the action-related pillar of COMPETITION (Figure 1).

The largest differences appear to lie in aspirations, with lower scores in HIGH GROWTH and PRODUCT INNOVATION in the case of LAC factor-driven economies, while its Asian and MENA counterparts exhibit higher relative scores in PRODUCT INNOVATION, and MENA countries also in HIGH GROWTH.

Finances present a problem for all factor-driven economies depicted in Figure 1 but particularly so for the LAC economies, as clearly evidenced by the very low score on RISK CAPITAL. The LAC factor-driven economies also perform poorly on innovation and research and development, as is evident in the above-mentioned low PRODUCT INNOVATION score.

Latin America and the Caribbean appears to have a relatively strong level of STARTUP SKILLS and moderate level of OPPORTUNITY PERCEPTION but it falls short in capitalizing on this and turning it into a source of innovation and high-growth ventures, and the Southern Hemisphere is crippled by poor performances on the aspirations and action pillars. LAC could round out its development strategy with targeted interventions to increase credit and the inflow of venture capital, and more effectively promote R&D and technology transfer for SMEs it could make large gains in its entrepreneurial capacity.



Notes: Mena countries: Algeria Egypt, Iran, Morocco, Saudi Arabia, Syria.

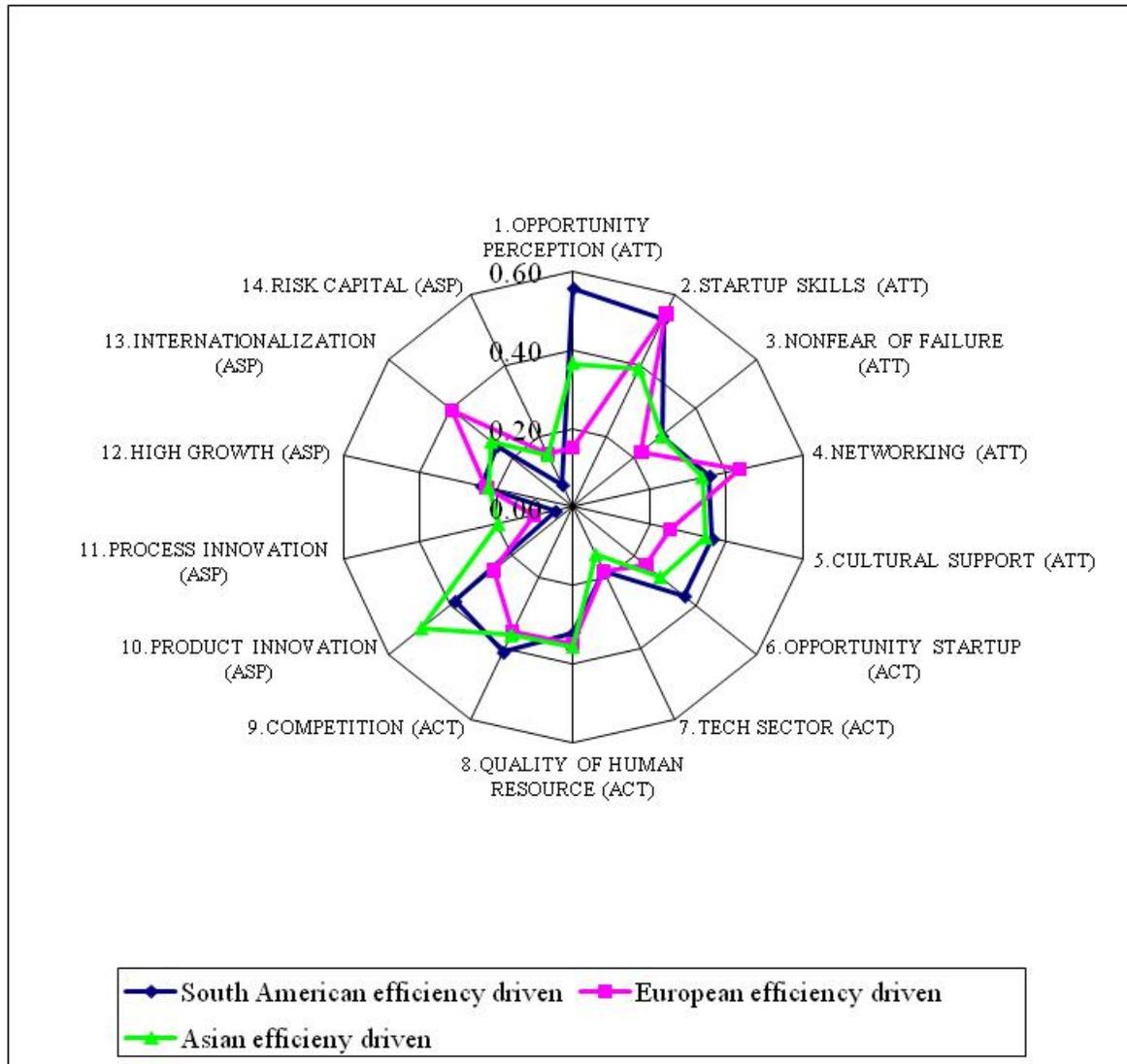
Factor driven Asian countries: India, Indonesia, Pakistan, Philippines.

Factor driven Latin American and Caribbean countries: Bolivia, Guatemala, Jamaica, Venezuela.

### **Figure 1: The Comparison of MENA, Asian and LAC Factor-driven Economies**

Let us look at the efficiency-driven economies around the world and compare them with their LAC counterparts. As Figure 2 shows the 14 pillars are rather similar in all efficiency-driven economies. They are all better at **PRODUCT INNOVATION** than **PROCESS INNOVATION**. They are all weak in the **TECH SECTOR**. And they all exhibit a high fear of failure. **RISK CAPITAL** is scarce. On the positive side they are very similar in **QUALITY OF HUMAN RESOURCES**, **NETWORKING** and **COMPETITION**. Despite the extensive similarities in all

three regions of the world LAC efficiency-driven economies need to pull away in PROCESS INNOVATION and RISK CAPITAL.

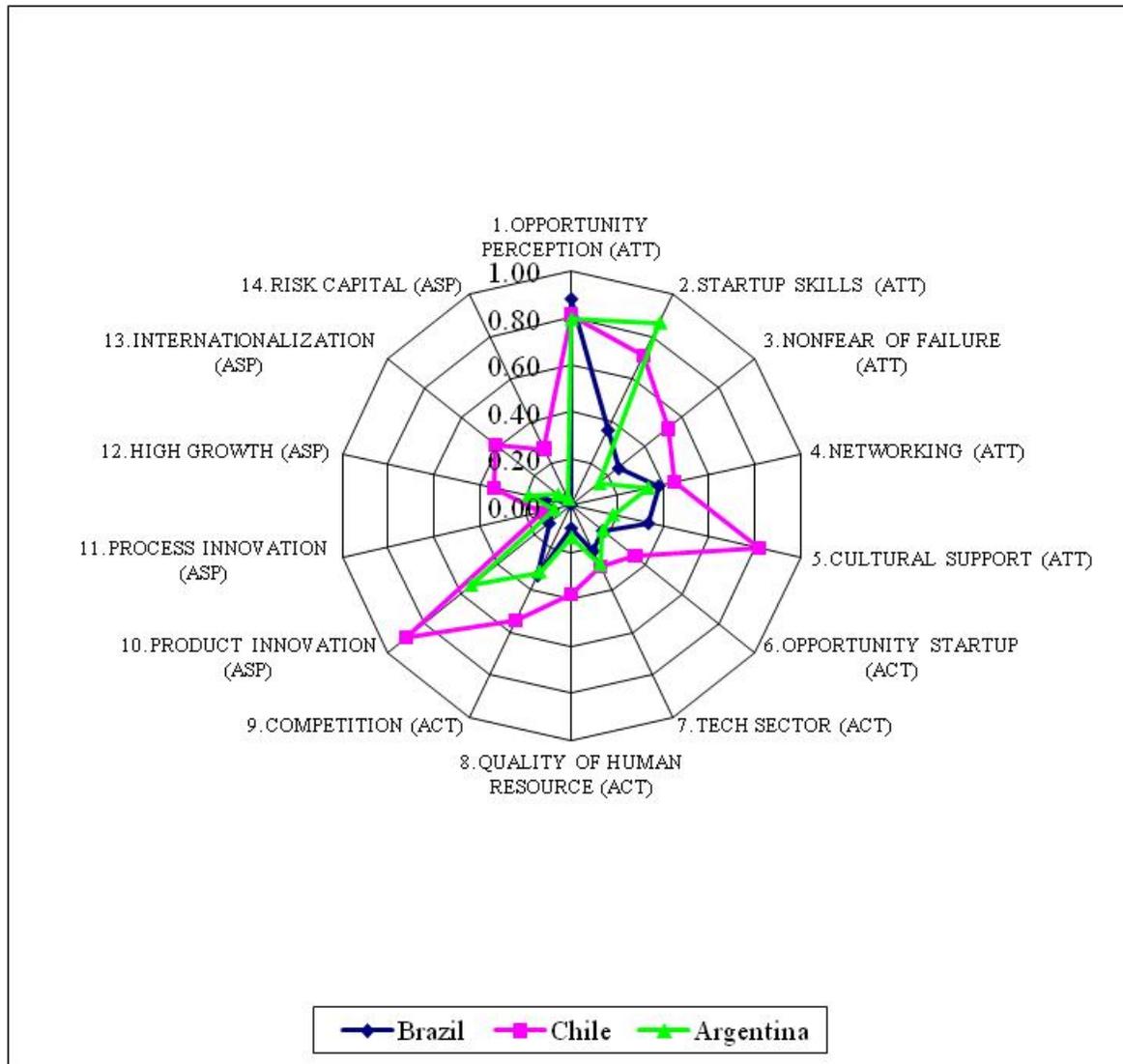


Notes: Latin America & Caribbean efficiency driven: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Panama, Peru, Puerto Rico, Trinidad and Tobago, Uruguay,  
 European efficiency driven: Bosnia and Herzegovina, Croatia, Hungary, Latvia, Macedonia, Montenegro, Poland, Romania, Russia, Serbia,  
 Asian efficiency driven: China, Jordan, Lebanon, Malaysia, Taiwan, Thailand, Turkey

### ***Figure 2: The Comparison of Efficiency-driven Economies around the World***

Looking at individual countries, Figure 3 illustrates how, despite similar levels of development as well as geographic position, the entrepreneurial performance of Brazil, Chile and Argentina does vary from one to another. Moreover, the picture is not balanced in all three cases suggesting that a more balanced or holistic approach to entrepreneurship policy is needed.

Chile has an advantageous position and its overall performance is more like an innovation-driven than an efficiency-driven economy. Two attitude-related pillars have relatively good performance – OPPORTUNITY STARTUP and CULTURAL SUPPORT – but its highest performer is the action-related pillar of PRODUCT INNOVATION.



**Figure 3: The Entrepreneurial Characteristics of Three LAC Efficiency-driven Economies: Brazil, Chile and Argentina**

Brazil's performance is more representative of a factor-driven than an efficiency-driven economy. Its attitude indicators are the most developed but the differences are considerable. R&D funding and ties to institutions such as universities where R&D is centered is removed from entrepreneurs, raising the barriers for technology transfer. The uneven level of its indicators hurts the further development of entrepreneurship in Brazil. Of course this is influenced by the fact that it is a large country with important variations in regional development.

Argentina is viewed in some circles as a success in high impact entrepreneurship. It indeed has some real strength compared to Chile and Brazil. It is very strong in OPPORTUNITY PERCEPTION, STARTUP SKILLS, TECH SECTOR and PRODUCT INNOVATION. However, it is surprisingly weak in CULTURAL SUPPORT. It is also very weak on almost all of the aspiration variables with the exception of PRODUCT INNOVATION. What is a particularly important bottleneck is INTERNATIONALIZATION. It is almost zero. How can a country be successful at high impact entrepreneurship that does not engage the international community is hard to understand? The quality of HUMAN RESOURCES is also very low and cannot support entrepreneurial led growth.

In order to capitalize on having avoided the worse of the financial crisis LAC countries should focus on building capacity for entrepreneurial aspirations. These include:

- Strengthening the institutional and individual variables to IMPROVE PROCESS INNOVATION.
- Improving BUSINESS STRATEGY for more HIGH GROWTH companies.
- Increase VENTURE CAPITAL and INFORMAL INVESTMENT to increase risk capital.

## **Conclusion**

A rich and diverse mosaic is suggested by this brief overview of 2012 GEDI results. The relative weaknesses and strengths identified are but some of the key areas in which intervention can lead to significant improvements in the growth and development prospects of all economies whether factor-, efficiency- or innovation-driven. Moreover, as can be seen by the unique sets of individual and institutional pillars in the 2012 GEDI results the entrepreneurial character of a country cannot be anticipated by neither levels of development nor geographic location or proximity.



## Center for Entrepreneurship and Public Policy (CEPP)

The George Mason School of Public Policy's Center for Entrepreneurship and Public Policy (CEPP) is a global leader in the field of Entrepreneurship and Comparative Public Policy. CEPP is developing a four-pronged approach to high-growth entrepreneurship research focusing on Entrepreneurship and Development; Regional Entrepreneurship; Gender and Entrepreneurship; and Altruism, Philanthropy and Social Entrepreneurship. At CEPP, we use the Global Entrepreneurship and Development Index (GEDI) to distill the complex relationship between individuals, institutions and entrepreneurship into clear and implementable results for public policy and program development.

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To order a copy of the 2012 GEDI go to:

[http://www.e-elgar.co.uk/bookentry\\_main.lasso?currency=UK&id=14235](http://www.e-elgar.co.uk/bookentry_main.lasso?currency=UK&id=14235)

For a review of the 2011 GEDI see:

<http://www.enterprise-development.org/page/GEDI>

For press coverage in the Wall Street Journal see:

<http://gedindex.wordpress.com/2010/11/16/global-entrepreneurship-and-development-fund-in-wsj/>

and in the Economist Magazine:

<http://www.economist.com/node/18227144>