

## Introduction

The world today is at ‘ground zero’ in its struggle to create hundreds of innovative new products for the bottom of the pyramid and in the process create millions of jobs to deal with the new population bomb. This struggle has captured the aspirations of thousands of entrepreneurs around the world. Today, despite the global downturn, entrepreneurs are enjoying a renaissance the world over, according to a recent survey in *The Economist* magazine.<sup>1</sup>

Historically, all societies may have had a constant supply of entrepreneurial activity, but that activity was distributed unevenly among productive, unproductive and destructive entrepreneurship because of the incentive structure.<sup>2</sup> To change the allocation of talent you need to change the incentive structure, and to change the incentive structure you need to strengthen institutions, and to strengthen institutions you need to fix government.

Over 200 years ago, the United States invented the entrepreneurial society. The entrepreneurial society is based upon the conjecture that there are extraordinary possibilities in ordinary people, and that those who do not risk cannot win. This was echoed by the American Revolutionary war hero, Captain John Paul Jones, who when asked if he wanted quarters replied, ‘Sir, I have not yet begun to fight’. Entrepreneurship is about inventing the future. Today the entrepreneurial society is spreading around the world. The problem is that the future is here but it is just not widely distributed and we do not yet know how fast it is spreading.

The dynamics of the entrepreneurial process can be vastly different, depending on the incentive structure within a particular economy. If one is interested in studying entrepreneurship within or across countries, the broad nexus between incentives, institutions and economic development is a critical area of inquiry. This nexus is especially important in helping understand why the relative contributions of entrepreneurship can vary significantly across countries and regions, and why certain countries are rich and why some stay poor.

Of course, the interdependence of economic development, institutions and incentives is generally recognized by social scientists.<sup>3</sup> This interdependence between incentives and institutions affects other characteristics, such as quality of governance, access to capital and other resources, and what entrepreneurs perceive. Institutions are critical determinants of economic behavior and economic transactions in general, and they can have both direct and indirect effects on the supply and demand of entrepreneurs.<sup>4</sup>

The role played by incentives in economic development has become increasingly clear to economists

and policymakers alike.<sup>5</sup> People need incentives to invest and prosper. They need to know that if they work hard, they can make money and actually keep that money. As incentive structures change, more and more entrepreneurial activity is shifted toward productive entrepreneurship that strengthens economic development.<sup>6</sup> This entrepreneurial activity tends to explode during the innovation-driven stage which culminates in a high level of innovation, with entrepreneurship leveling out as institutions are fully developed. In a classic essay published 20 years ago, Francis Fukuyama wrote that the triumph of the West was evident in the total exhaustion of viable alternatives to Western liberalism.<sup>7</sup>

The key outcome of entrepreneurship is innovation: the transforming of an invention into a new product that you can sell to a lot of people. In this process, entrepreneurs create jobs that do not exist today. However, entrepreneurship is much more. Entrepreneurship builds social capital as entrepreneurs connected to other people. We become better individuals because entrepreneurship allows failure, and from failure we learn. Entrepreneurship creates social responsibility because you get rewarded if you succeed. Finally, entrepreneurship reinforces economic freedom and ultimately leads to political freedom. Liberty after all is nothing more than freedom and responsibility.<sup>8</sup>

Recognizing that the key to ensuring that those incentive structures are sound is good institutions – at least three large research projects at the World Bank, the Heritage Foundation and the World Economic Forum are actively involved in measuring the quality of institutions, incentives and governance across countries and over time. The World Bank publishes the annual Ease of Doing Business Index, which captures the influence that regulations have on firm startup. The Index comprises 12 measures of the regulatory aspects of startup and existing businesses. The Ease of Doing Business Index was created to measure the simplicity of regulations for businesses and the level of protections of property rights. It aims to evaluate the effect of improving regulations on economic growth and to determine the optimal levels of business regulation. It does not directly measure general economic conditions that affect not only laws and regulations, but also economic performance. Fewer and simpler regulations imply higher rankings.

Another widely applied and recognized index is Michael E. Porter’s competitiveness index, reported yearly by the World Economic Forum. The Global Competitiveness Index (GCI) aims to capture the institutional and political factors, among other related

measures, that influence countries' productivity and competitiveness. The Index is built from 12 'pillars' that comprise different measures of productivity. The basic requirement pillars (institutions, infrastructure, macroeconomic stability, health, and primary education) are important for the factor-driven countries. The efficiency-enhancer pillars (higher education and training, labor and goods, market efficiency, financial market sophistication, technology readiness, and market size) are the key elements for efficiency-driven, middle-income countries. The innovation and sophistication pillar (business sophistication and innovation) is central to the competitiveness of the highly developed, innovation-driven economies.<sup>9</sup> The innovation-related factors have a particularly close connection to entrepreneurship.

In operation since 1995, the Index of Economic Freedom is one of the oldest commonly recognized global indexes. Data in 10 freedom categories – business, trade, fiscal, monetary, investment, financial, labor, government size, property rights, and freedom from corruption – are available from 1995. Over the last two years, the Index has developed further and scholars have identified new ways to interpret it. In 2008 it introduced the fluidity of institutions concept, which refers to the mixing of boundaries, ideas testing, learning and adaptation of institutions. The degree of economic fluidity has a direct effect on innovation and entrepreneurship.<sup>10</sup>

Focusing only on the most widely applied indexes, the Ease of Doing Business Index, the GCI and the Index of Economic Freedom, we can conclude that all three try to capture the institutional features of the participating countries. While institutions are vital for development, they provide only a part of the picture. The most important drawback of these indexes is the lack of microeconomic foundation.

None of these indexes measures the outcome of better incentives – more entrepreneurship. While the measurement of institutions has been going on for decades, the measurement of entrepreneurial activity is a relatively new subject that represents a gap in our understanding of why countries are rich and poor. However, more recently, increasing attention has been paid to investigating the contextual nature of entrepreneurship.

Several research projects are now under way at the World Bank, the Organization for Economic Cooperation and Development (OECD) and the Global Entrepreneurship Monitor (GEM) to measure the business formation process across countries. This process is an important aspect of how entrepreneurs and institutions interact to produce innovations and deliver new goods and services to society.

For the past 10 years, an international research project has been underway, its explicit mission being *the measurement of the business formation process across countries*. The GEM project is similar to the projects at the above-mentioned institutions, in that it is a large research project interested in understanding economic development, albeit

from a slightly different perspective. The business formation process is an important aspect of how incentives and institutions interact to produce innovations and deliver new goods and services to society.

However, how successful different countries are at this is not easily discernible from either the GEM project or several other projects that try to measure the business formation process. Interestingly, the ranking of countries on the Total Entrepreneurial Activity (TEA) Index<sup>11</sup> is almost the reverse of country ranking on the Ease of Doing Business Index, with developed countries dominating the first places on the former and the last places on the latter.

The purpose of the Global Entrepreneurship and Development Index (GEDI) is to contribute to a more complete understanding of economic development.<sup>12</sup> The Index is a powerful tool to measure how fast 'the future' is spreading around the world. Like a global positioning system, the GEDI can pinpoint a time and place and identify its strengths and weaknesses relative to other countries. Moreover, it offers a measure of the quality and scale of the firm formation process in the most important countries in the world. The GEDI captures the contextual feature of entrepreneurship by focusing on entrepreneurial attitudes, entrepreneurial activity and entrepreneurial aspirations – the '3As' of development.

The GEDI is part of a long-term research project aimed at measuring global progress. It is an annual evaluation that over the decades will give us a valuable database on most countries in the world. The goal of the GEDI is to include most countries of the world by 2015. Not only will this allow us to improve institutions around the world, it will also allow us to see which countries are making progress and which policies are working. By creating better institutions, we shall create better individual incentives. In the very near future, as more and more people move to cities, we shall need to be able to measure entrepreneurial activity in cities. Within the next five years, we plan to start a similar project at the city level that will help us judge the progress of the largest 200 cities in the world.

The first of the following chapters describes the GEDI and then presents the results from this first edition of the Index. Chapter 2 lays out the relationship between entrepreneurship and economic development. Chapter 3 provides the methodology and data description. Finally, Chapter 4 presents our results for all of the countries in the Index.

## Notes

1. Wooldridge (2009).
2. Baumol (1990).
3. Adelman and Morris (1965).
4. Busenitz and Spencer (2000).
5. Acemoglu et al. (2001).
6. Acemoglu and Johnson (2005).
7. Fukuyama (1989).
8. Ács and Audretsch (1988).

9. Porter and Schwab (2008).
10. Schramm (2008).
11. In earlier versions TEA stood for Total Entrepreneurial Activity. More recently it stands for Total Early-stage Entrepreneurship Activity.
12. Auerswald and Ács (2009).

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