

CHAPTER 1

Introduction to the 2013 Global Entrepreneurship and Development Index

This is the third edition of the *Global Entrepreneurship and Development Index (GEDI)*. The GEDI mission is to provide a detailed look into the entrepreneurial character of nations. This composite index, which includes both individual- and country-level institutional data, 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.

The world economy has started, slowly, to recover from the great recession. But perils prevail. Whereas some parts of the world have weathered the 'great recession' and returned to growth, others continue to struggle with massive debt and lackluster growth. Entrepreneurship plays an important role in both dynamics. In countries such as China, entrepreneurs can help reduce economic dependency on infrastructural investment by catalyzing consumer demand. In countries still suffering the consequences of financial excess, entrepreneurs are having a more difficult time in turning the economy around, as uncertainty saps business confidence. For example, in Greece, all measures of entrepreneurship are down. The GEDI has been designed to help governments figure out how they can harness the power of entrepreneurship to address both challenges.

The world economy is facing not only short-term but also important medium- and long-term challenges. Whereas rich countries are challenged to increase their economic productivity to sustain current standards of living with an aging population, low-income economies need to integrate more than three billion young adults into the world economy by 2050. Economic initiatives by enterprising individuals are likely to be key in addressing the challenge of long-term productivity in rich countries. Countries with struggling, low-income economies face the challenge of integrating a rapidly growing population into the economy in the most productive way.

The GEDI seeks to provide some answers to such challenges. Departing from both output-based entrepreneurship indexes (i.e., new firm counts) and process-based indexes (i.e., comparisons of policies and regulations), the GEDI is designed to profile national systems of entrepreneurship. National systems of entrepreneurship (NSEs), are the dynamic, institutionally embedded interaction between individual-level attitudes, abilities, and aspirations that drives productive entrepreneurship. The 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, the GEDI also captures attitudes and aspirations, as well as individual-level entrepreneurial abilities.

Finally, the GEDI recognizes that entrepreneurship can mean very different things in different economic and institutional contexts. A horticultural venture would have different economic consequences for the Kenyan economy than would a social media startup in Silicon Valley. Recognizing that entrepreneurship has different consequences in different contexts, the GEDI combines individual-level data with data that describe national institutions, along with economic and demographic structures, to provide an institutionally embedded view of the drivers of productive entrepreneurship. A detailed explanation of the GEDI method is provided in Chapter 6.

The financial crisis, the housing crisis and the great recession have taken a terrible toll on the people, the economy and society at large all around the world. Because it was caused by financial excess, the crisis has inflicted damage on the entrepreneurial sector as well. The good news is that as the world economy has started to recover, entrepreneurship has started to flourish. In most countries, productive entrepreneurship – as portrayed by data collected in mid-2011 – has started to pick up. This is a sharp improvement over the previous year. However, much work remains, as our index shows that the world is using only 30 percent of its entrepreneurial capacity.

In this introduction, we compare the 2012 version of the Index¹ (Ács and Szerb, 2011) with the 2013 version and review changes in country rankings. We also introduce 39 new countries to the GEDI in 2012, bringing the total to 118 with extensive new coverage in Africa, Southern Europe and Southeast Asia (see Figure 1.1). This is the first time when we have fairly evenly distributed coverage around the world. We divide the world into six groups of approximately 20 countries each. The United States along with a group of 19 rich countries leads the Index, followed by 20 moderate growth countries. Panama is the modal country. The bottom sixth is dominated by poor countries in Africa and Southeast Asia. The lower middle covers the Middle East and South America.

Table 1.1 presents the 10 most entrepreneurial countries in the 2013 edition of the GEDI and compares them to the 2012 GEDI rankings.

The most interesting finding is that globally, the drivers of productive entrepreneurship have improved across the globe. On a scale of 0.0 to 1.0, the quality of the drivers of productive entrepreneurship improved from 0.63 to 0.67, about a 6 percent increase. It is telling that this increase was larger in the developed countries than in the emerging countries, reflecting the improving institutional conditions in the world of the wealthy. 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.

While the great recession has hurt productive entrepreneurship in most countries, we are starting to see signs of a recovery. The Index reflects the conditions needed for productive entrepreneurship. The United States maintained its number one position on the Index by moving up from 0.63 to 0.67 – a 4 percentage point or a 6 percent increase. This is not a surprising finding. The well-established entrepreneurial traditions and institutions in the United States enabled it to recover better than others. In contrast, the continued crisis in Europe is hurting that area’s ability to foster new growth through entrepreneurship. The other countries in the top 10 are Sweden, Australia, Iceland, Denmark, Canada, Switzerland, Norway, Taiwan and the Netherlands. They all improved their scores in 2012.

Sweden moved up from 3rd place to 2nd, while Denmark stayed 3rd. Australia’s score increased from 0.58 to 0.62, thereby continuing its strong trend, as it avoided 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 and the Netherlands). Taiwan, rank 9th, was tied for 10th place on the 2012 GEDI – the first Asian country among the top 10 most entrepreneurial economies in the world. Iceland’s story is also interesting. When hit by a banking crisis, Iceland allowed banks to fail, forced depositors and debtors to accept losses, and subsequently emerged from the recession in better shape than many other economies, ranking 7th on the GEDI. This contrasts with other credit-stricken European countries: Ireland dropped from 15th to 17th, Portugal from 35th to 40th, and Greece

Table 1.1 The 10 most entrepreneurial countries in 2013

Country	GEDI 2013	Rank 2013	GEDI 2012	Rank 2012
United States	0.67	1	0.63	1
Sweden	0.63	2–3	0.58	3–6
Denmark	0.63	2–3	0.58	3–6
Australia	0.62	4	0.58	3–6
Canada	0.59	5	0.58	3–6
Netherlands	0.58	6	0.51	11
Iceland	0.57	7	0.57	7
Switzerland	0.56	8	0.59	2
Taiwan	0.55	9–10	0.52	9
Norway	0.55	9–10	0.51	10

Table 1.2 The first three countries' rank on the GEDI and on the three sub-indexes

Rank Order	GEDI	ATT	ABT	ASP
1	United States	Sweden	Denmark	Taiwan
2	Sweden	United States	Australia	United States
3	Denmark	Canada and Netherlands	United States	Singapore

4

from 38th to 47th. Financial crises are not good for productive entrepreneurship!

The GEDI's three sub-indexes – attitudes, abilities, and aspirations – provide a more detailed look at what is happening in the global economy (see Table 1.2). While the United States holds the top ranking on the overall GEDI, it does not rank first on any of the sub-indexes. It ranks second on the attitudes (ATT) and aspirations (ASP) sub-indexes, and it ranks only third on the abilities (ABT) sub-index. Taiwan occupies the top spot on the aspirations sub-index, followed by the United States and Singapore. The center of gravity on aspirations may be shifting from the United States and Scandinavia to the United States and Asia. Israel dropped from number 1 on the aspirations sub-index to number 4. The country has a very strong startup culture and is also well known for starting high-impact ventures. It is home to numerous important healthcare, software, electronics, and defense companies. The first overall rank of the United States is due to its being among the top three on all three sub-indexes.

Table 1.3 lists all 118 countries in the latest GEDI ranking and the 79 countries that were included in the GEDI 2012 edition.² The table shows that developing countries in Africa, South America, Central Europe, Asia and the Middle

East occupy the bottom rankings. Chad occupies the last place, after many new African countries were added. Uganda moved up to 107th place. The largest country in Africa is Nigeria and ranks 76th on the GEDI. The United Arab Emirates (UAE) continues to lead the Middle East and is clustered with Qatar, Slovenia, Estonia and Israel. The relatively low rankings of India and, surprisingly, China are explained by their large rural and agricultural sectors, which pull down their rankings.

Table 1.4 shows the countries that made the greatest gains on the GEDI from the 2012 edition to the 2013 edition. The Netherlands made the largest gain moving from 11th to 6th a gain of 0.07 points on the GEDI scale. Denmark was a close second moving up 0.06 points. The countries with the biggest gains are mostly in Western Europe followed by Asia, and they have wide-ranging geographic, social, and economic backgrounds. France, Sweden and Romania all moved up 0.05 points. Thailand, Taiwan and China all moved up 0.04 points. The United Kingdom moved up to 14th place.

The Netherlands increase was 0.06 points and it went from 11th to 6th on the GEDI. The increase was across the board, with small increases in many areas. For example, on the attitudes sub-index, the Netherlands ranked 4th right after Canada with

Table 1.3 The GEDI points and ranks of the countries in the 2012 and 2013 editions

Country	Rank 2013	GEDI 2013	Rank 2012	GEDI 2012	Country	Rank 2013	GEDI 2013	Rank 2012	GEDI 2012
United States	1	0.67	1	0.63	Panama	58–63	0.26	51–56	0.23
Sweden	2–3	0.63	3–6	0.58	Botswana	58–63	0.26		
Denmark	2–3	0.63	3–6	0.58	Mexico	58–63	0.26	44–48	0.26
Australia	4	0.62	3–6	0.58	Brunei	58–63	0.26		
Canada	5	0.59	3–6	0.58	Thailand	64–65	0.24	62–66	0.20
Netherlands	6	0.58	10–11	0.51	Jordan	64–65	0.24	51–56	0.23
Iceland	7	0.57	7	0.57	Costa Rica	66–69	0.23	51–56	0.23
Switzerland	8	0.56	2	0.59	Namibia	66–69	0.23		
Taiwan	9–10	0.55	9	0.52	Dominican Republic	66–69	0.23	51–56	0.23
Norway	9–10	0.55	10–11	0.51	Russia	66–69	0.23	62–66	0.20
France	11–13	0.53	14–17	0.48	Trinidad and Tobago	70–74	0.22	50	0.24
Belgium	11–13	0.53	8	0.54	Albania	70–74	0.22		
Singapore	11–13	0.53	12	0.50	Brazil	70–74	0.22	57–58	0.22
United Kingdom	14	0.52	14–17	0.48	Moldova	70–74	0.22		
Germany	15	0.51	14–17	0.48	Morocco	70–74	0.22	59–61	0.21
Finland	16–17	0.50	18–20	0.47	Jamaica	75–79	0.21	51–56	0.23
Ireland	16–17	0.50	13	0.49	Indonesia	75–79	0.21	59–61	0.21
Puerto Rico	18–19	0.49	18–20	0.47	Kazakhstan	75–79	0.21	62–66	0.20
Austria	18–19	0.49	14–17	0.48	Nigeria	75–79	0.21		
Israel	20	0.47	18–20	0.47	Ukraine	75–79	0.21		
Chile	21–22	0.45	22–23	0.45	Serbia	80–81	0.20	62–66	0.20
Qatar	21–22	0.45			Syria	80–81	0.20	62–66	0.20
Slovenia	23	0.43	22–23	0.45	Paraguay	82–84	0.19		
United Arab Emirates	24	0.42	21	0.46	Egypt	82–84	0.19	67–68	0.19
Estonia	25	0.41			Bolivia	82–84	0.19	69	0.18
Czech Republic	26	0.40	24	0.43	Ecuador	85–90	0.18	71–73	0.16
Spain	27	0.39	28–29	0.36	Iran	85–90	0.18	67–68	0.19
Bahrain	28–29	0.38			Venezuela	85–90	0.18	57–58	0.22
Saudi Arabia	28–29	0.38	25–27	0.38	Bosnia and Herzegovina	85–90	0.18	70	0.17
Oman	30–32	0.37			India	85–90	0.18	74–77	0.15
Lithuania	30–32	0.37			Algeria	85–90	0.18	59–61	0.21
Poland	30–32	0.37	31–32	0.33	Philippines	91–92	0.17	71–73	0.16
Slovakia	33	0.36			El Salvador	91–92	0.17		
Hungary	34–36	0.35	33–35	0.32	Ghana	93–95	0.16	74–77	0.15
Japan	34–36	0.35	25–27	0.38	Swaziland	93–95	0.16		
Latvia	34–36	0.35	31–32	0.33	Senegal	93–95	0.16		
Italy	37–43	0.34	36–38	0.31	Zambia	96–98	0.15	74–77	0.15
Hong Kong	37–43	0.34	30	0.34	Honduras	96–98	0.15		
Uruguay	37–43	0.34	28–29	0.36	Kenya	96–98	0.15		
Portugal	37–43	0.34	36–38	0.31	Cameroon	99–104	0.14		
Croatia	37–43	0.34	33–35	0.32	Angola	99–104	0.14	78	0.14
Cyprus	37–43	0.34			Guatemala	99–104	0.14	74–77	0.15

Table 1.3 (continued)

Country	Rank 2013	GEDI 2013	Rank 2012	GEDI 2012	Country	Rank 2013	GEDI 2013	Rank 2012	GEDI 2012
Korea	37–43	0.34	25–27	0.38	Benin	99–104	0.14		
Kuwait	44	0.33			Rwanda	99–104	0.14		
Turkey	45–46	0.32	33–35	0.32	Pakistan	99–104	0.14	71–73	0.16
Montenegro	45–46	0.32	39	0.30	Gambia	105–106	0.13		
Greece	47–49	0.31	36–38	0.31	Tanzania	105–106	0.13		
Colombia	47–49	0.31	40	0.29	Uganda	107–110	0.12	79	0.10
Bulgaria	47–49	0.31			Madagascar	107–110	0.12		
Romania	50–51	0.30	49	0.25	Mali	107–110	0.12		
Barbados	50–51	0.30			Côte d'Ivoire	107–110	0.12		
Peru	52–53	0.29	41–42	0.28	Malawi	111–113	0.11		
South Africa	52–53	0.29	41–42	0.28	Belize	111–113	0.11		
Lebanon	54	0.28	43	0.27	Burkina Faso	111–113	0.11		
Tunisia	55–57	0.27	44–48	0.26	Ethiopia	114–115	0.10		
Malaysia	55–57	0.27	44–48	0.26	Mauritania	114–115	0.10		
Macedonia	55–57	0.27	44–48	0.26	Bangladesh	116	0.09		
Argentina	58–63	0.26	44–48	0.26	Burundi	117	0.08		
China	58–63	0.26	51–56	0.23	Chad	118	0.07		

Table 1.4 The 10 biggest gains on the GEDI from the 2012 to 2013 edition³

Country	Rank 2013	GEDI 2013	Rank 2012	GEDI 2012	Difference
Netherlands	6	0.58	10–11	0.51	0.07
Denmark	2–3	0.63	3–6	0.58	0.06
France	11–13	0.53	14–17	0.48	0.05
Sweden	2–3	0.63	3–6	0.58	0.05
Romania	50–51	0.30	49	0.25	0.05
Thailand	64–65	0.24	62–66	0.20	0.04
Norway	9–10	0.55	10–11	0.51	0.04
Taiwan	9–10	0.55	9	0.52	0.04
China	58–63	0.26	51–56	0.23	0.04
United Kingdom	14	0.52	14–17	0.48	0.04

strong startup skills, networking, cultural support, and opportunity. On the abilities sub-index it ranked 10th with some weakness in the tech sector and the quality of human resources. There were also small increases on the aspirations sub-index for product innovation and process innovation, and high growth aspirations. While the increases are not large, they are all positive, which indicates improvement in the country's entrepreneurial ecosystem. However, while the Netherlands ranked 12th in aspirations it was weak in process innovation and high growth.

France went from 16th to 11th, improved by 0.05 points on the GEDI. France also has a balanced picture similar to the Netherlands, with very high startup skills, strong growth in networking, and good cultural support in the attitudes sub-index. It also has very strong showings in the aspirations related process innovation, product innovation, high growth, and internationalization. The weakness is risk capital. France and the Netherlands here are mirror opposites on process innovation and risk capital.

Table 1.5 The 11 biggest declines on the GEDI Index between 2012 and 2013 editions

Country	Rank 2013	GEDI 2013	Rank 2012	GEDI 2012	Difference
United Arab Emirates	24	0.42	20	0.46	-0.04
Korea	37–43	0.34	25–27	0.38	-0.04
Algeria	85–90	0.18	59–61	0.21	-0.04
Venezuela	85–90	0.18	57–58	0.22	-0.04
Czech Republic	26	0.40	24	0.43	-0.03
Switzerland	8	0.56	2	0.59	-0.03
Japan	34–36	0.35	25–27	0.38	-0.03
Pakistan	99–104	0.14	71–73	0.16	-0.02
Slovenia	23	0.43	22–23	0.45	-0.02
Jamaica	75–79	0.21	51–56	0.23	-0.02
Uruguay	37–43	0.34	28–29	0.36	-0.02

Note: GEDI 2012 edition used mid-2010 data. GEDI 2013 edition uses data collected in June 2011.

Table 1.5 shows the biggest losers in the 2013 edition of GEDI relative to the 2012 edition: United Arab Emirates, Korea, Algeria, Venezuela, Czech Republic, Switzerland, Japan and Pakistan. Some Asian countries exhibited significant declines. The decliners are evenly split around the world.

The United Arab Emirates fell from 20th to 24th. The differences in the United Arab Emirates between the 2012 and 2013 editions were due to unbalanced performance. We found a very large increase in networking skills and a small increase in startup skills. On the abilities sub-index, opportunity startups, the technology sector, and competition increased. In terms of aspirations, only high growth increased. The imbalance between risk capital at 1.0 and process innovation at 0.00 shows the imbalance in the economy. You must improve weaknesses if you want to improve your overall performance.

Table 1.6 lists the countries that are new to the

GEDI in this edition. While GEDI has been increasing its coverage each year, this is the largest expansion of new countries in five years. By adding 39 new countries in Africa, the Caribbean, Southern Europe, and Asia we now have extensive and even coverage of the most important parts of the world. Perhaps the most important country that was added in this edition was Nigeria, the largest country in Africa. Nigeria ranks 78th on the GEDI index next to Kazakhstan and Ukraine. Nigeria ranks above its trend line on all of the sub-indexes. It also ranks above its ranking on the Ease of Doing Business Index, the Global Competitiveness Index, and the Economic Freedom Index. One reason is that Nigeria does better on the individual variables than on institutional variables. Its worst variables are business risk, informal investment, and global entrepreneurship research and development (GERD). But on opportunity recognition, know entrepreneurs, and skill perception its ranks near the top.

Table 1.6 The entrepreneurial performance of the new countries in 2013 on the GEDI and the three sub-indexes

Country	GEDI	GEDI rank	ATT Index	ATT rank	ABT Index	ABT rank	ASP Index	ASP rank
Albania	0.22	70–74	0.19	92–94	0.28	56–58	0.20	56–58
Bahrain	0.38	28–29	0.40	31–32	0.38	32–34	0.38	26
Bangladesh*	0.09	116	0.09	112–116	0.17	92–99	0.02	118
Barbados*	0.30	50–51	0.44	25–26	0.32	43	0.13	80–83
Belize	0.11	111–113	0.11	110–111	0.17	92–99	0.05	115–117
Benin	0.14	99–104	0.15	100–103	0.17	92–99	0.09	95–99
Botswana	0.26	58–63	0.28	67–70	0.23	70–71	0.27	48
Brunei	0.26	58–63	0.26	76–80	0.34	40	0.18	61–64
Bulgaria	0.31	47–49	0.35	46–54	0.26	64–67	0.31	39–41

Table 1.6 (continued)

Country	GEDI	GEDI rank	ATT Index	ATT rank	ABT Index	ABT rank	ASP Index	ASP rank
Burkina Faso	0.11	111–113	0.12	109	0.15	104–108	0.06	110–114
Burundi	0.08	117	0.04	118	0.13	110–115	0.05	115–117
Cameroon	0.14	99–104	0.19	92–94	0.16	100–103	0.09	95–99
Chad	0.07	118	0.06	117	0.09	118	0.06	110–114
Côte d'Ivoire	0.12	107–110	0.16	99	0.13	110–115	0.06	110–114
Cyprus	0.34	37–43	0.31	60–63	0.41	25–26	0.29	43–47
El Salvador	0.17	91–92	0.25	81–82	0.19	82–86	0.08	100–103
Estonia	0.41	25	0.39	33–37	0.43	23	0.39	24–25
Ethiopia	0.10	114–115	0.09	112–116	0.15	104–108	0.06	110–114
Gambia	0.13	105–106	0.14	104–107	0.19	82–86	0.08	100–103
Honduras	0.15	96–98	0.17	97–98	0.20	78–81	0.09	95–99
Kenya	0.15	96–98	0.18	95–96	0.18	87–91	0.09	95–99
Kuwait	0.33	44	0.43	27–29	0.27	59–63	0.29	43–47
Lithuania*	0.37	30–32	0.35	46–54	0.41	25–26	0.33	36–38
Madagascar	0.12	107–110	0.13	108	0.17	92–99	0.07	104–109
Malawi	0.11	111–113	0.09	112–116	0.13	110–115	0.12	84–87
Mali	0.12	107–110	0.14	104–107	0.15	104–108	0.07	104–109
Mauritania	0.10	114–115	0.09	112–116	0.11	116–117	0.08	100–103
Moldova	0.22	70–74	0.17	97–98	0.30	46–55	0.19	59–60
Namibia	0.23	66–69	0.21	90	0.23	70–71	0.24	53–54
Nigeria*	0.21	75–79	0.26	76–80	0.22	72–74	0.14	73–79
Oman	0.37	30–32	0.39	33–37	0.33	41–42	0.39	24–25
Paraguay	0.19	82–84	0.23	85–86	0.21	75–77	0.12	84–87
Qatar	0.45	21–22	0.48	18–20	0.38	32–34	0.48	11
Rwanda	0.14	99–104	0.15	100–103	0.19	82–86	0.07	104–109
Senegal	0.16	93–95	0.23	85–86	0.17	92–99	0.09	95–99
Slovakia	0.36	33	0.41	30	0.27	59–63	0.41	20–23
Swaziland	0.16	93–95	0.09	112–116	0.20	78–81	0.20	56–58
Tanzania	0.13	105–106	0.15	100–103	0.14	109	0.08	100–103
Ukraine	0.21	75–79	0.27	71–75	0.22	72–74	0.12	84–87

Note: * Denotes that the individual variables are available from the GEM survey, all the other countries' individual variables are estimated. For details, see Chapter 6.

Notes

1. This version uses data collected in mid-2011.
2. The GEDI 2012 edition reported data collected in June 2010. The GEDI 2013 edition reports data collected in June 2011.
3. The GEDI 2012 points have been recalculated by including the 2013 dataset that cause a minor change in the GEDI 2012 point values.

References

- Ács, Z.J. and L. Szerb (2011), *The Global Entrepreneurship and Development Index 2012*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar.