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DISCLAIMERS

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CONTENTS

LIST OF FIGURES

LIST OF TABLES

Executive Summary

In the last 15 years, the Latin American and the Caribbean region has undergone significant changes, mainly for the better. Many countries in the region have adopted prudent macroeconomic policies and are now better prepared to face external shocks. The middle class has grown, while poverty rates are less than half of what they were 15 years ago. There have been significant investments in infrastructure, education and the productive capacity of firms. Since 2003, the Latin American and the Caribbean countries (LAC) have recorded a level of economic performance surpassed only by Asia and very similar to that of Africa. However, over the past five years, the LAC region has faced a continuing decline in growth, as a result of an external environment particularly adverse to commodity exporters.

Falling commodity prices have added to the persisting challenge of low levels of trade, investment and savings, and low productivity growth. In order to create long-term sustainable and inclusive growth and to continue on the path of development, the region will have to adopt strategies aimed at increasing the prevalence of dynamic enterprises based on innovation. It is therefore imperative for policymakers in the region to focus on establishing an enabling environment in which entrepreneurs can emerge, compete and innovate.

ENTREPRENEURIAL ACTIVITY

Twelve countries in Latin America and the Caribbean – namely Argentina, Barbados, Brazil, Chile, Colombia, Ecuador, Guatemala, Mexico, Panama, Peru, Puerto Rico and Uruguay – participated in the 2015 Global Entrepreneurship Monitor survey, which is a coverage of 82% in terms of population and 88% of the GDP of the region. Key findings in terms of entrepreneurial activity include:

- On average, about two-thirds of people in the LAC region report positive social attitudes towards entrepreneurship. Guatemala (79%) and Brazil (76%) report the highest proportion of the adult population with a positive socio-cultural perception about entrepreneurship, while Puerto Rico (44%) and Mexico (47%) report the lowest socio-cultural acceptance. Puerto Rico has the lowest score for this indicator of all countries worldwide who participated in the 2015 GEM survey.

- The region shows an encouraging level of potential entrepreneurs at 59%. Only Africa and the factor-driven economies (both at 62%) scored marginally higher in terms of this indicator. Brazil's low percentage of potential entrepreneurs (51%) is cause for concern, given Brazilians' strongly positive social attitudes towards entrepreneurship (the second highest in the region).

- The percentage of intentional entrepreneurs in the LAC region is lower than for Africa and the factor-driven economies, but above all the other geographical and economic groups. However, the leakage of 26% between potential entrepreneurs (59%) and intentional entrepreneurs (33%) in the region means that there are many individuals quitting the entrepreneurial pipeline, even before any basic action is taken to become an entrepreneur. A more positive finding is that Chile and Colombia report intentional entrepreneurship rates of above 50%, among the five highest in the world.

- The LAC region has a higher percentage of nascent entrepreneurs (13%) than all the other geographic or economic groups. The economic situation of the Latin American countries, in terms of lack of employment opportunities, may explain this result. However, there is still a marked fall-off between intentional and active entrepreneurs – the proportion of nascent entrepreneurs is 60% lower than the number with entrepreneurial intentions. In terms of new entrepreneur rates, the LAC region is similar to Asia and Oceania, and second only to Africa. Brazil has the highest new business rate – almost double the regional average.

- The LAC region reports a lower ratio of nascent to new entrepreneurs than North America, but higher than the other geographical and economic groups. With the exception of Brazil and Panama, most of the countries experience a drop between nascent and new entrepreneurs. Improvements in the support system – including financing, coaching, marketing and sales, legal issues and managerial issues, as well as a deeper orientation toward opportunity-based businesses – are elements that are critical in order to achieve a higher conversion rate.

- A fifth of the adult population in the LAC region is engaged in early-stage entrepreneurial activity – on a par with Africa and higher that of the other geographical groupings. However, as noted earlier, the majority of this activity is in the nascent, rather than in the new business phase.

- The established business rate in the LAC region is lower than for Africa and Asia and Oceania, but on a par with North America. Five countries (Brazil, Mexico, Panama, Ecuador and Argentina) show an increase in the percentage of established entrepreneurs with respect to the percentage of new entrepreneurs. Brazil (18%) reports an established business rate more than double the regional average, as well as one of the highest rates worldwide.

- In terms of the entrepreneurial pipeline, then, the biggest leaks are between potential and intentional, and between intentional and nascent entrepreneurs. The differences between the countries with respect to intentional entrepreneurship rates are wider than for potential entrepreneurship rates. Between intentional and nascent entrepreneurs, the drop in most of the countries is considerable (more than 20 percentage points). Differences between the countries may be influenced by the extent to which support systems are in place to facilitate the initial steps of the entrepreneur.

- The LAC region shows the second highest business discontinuance rate. The region has, however, a positive ratio of TEA to business discontinuance – for every person exiting a business in 2015, three were engaged in early-stage entrepreneurial activity.

PROFILE OF THE ENTREPRENEURS

- At a regional level, necessity-driven entrepreneurship is highest in Africa and Latin America and the Caribbean, with 30% of entrepreneurs, on average, citing this motive. In nine of the 12 LAC countries, the proportion of necessity-driven entrepreneurs is over 25%. Guatemala, Panama and Brazil have the highest proportion of necessity-driven entrepreneurs. In these three countries, entrepreneurs are only marginally more likely to be motivated by opportunity rather than necessity.

- Barbados, Uruguay and Mexico have the highest rates of opportunity-driven motivation in the region – in line with the average for innovation-driven economies. This is particularly encouraging in Barbados and Mexico, with their healthy levels of TEA activity.

- The LAC region and Asia and Oceania show better indicators in terms of gender parity in of TEA involvement than the other regions. In 2015, eight women were engaged in early-stage entrepreneurship for every ten male entrepreneurs.

- Peru is the only country in the LAC region where women report higher TEA rates than men; however, Ecuador, Brazil and Panama all show an encouraging level of gender parity in terms of early-stage entrepreneurial activity. Uruguay has the widest gender gap in terms of early-stage entrepreneurial activity, with fewer than five women engaged in TEA for every 10 male entrepreneurs.

- With the exception of Colombia and Panama, women in all Latin American and Caribbean countries are significantly more likely to be necessity-driven than opportunity-driven entrepreneurs.

ENTREPRENEURSHIP IMPACT

- In nine of the 12 Latin American and Caribbean countries, more than 60% of the entrepreneurs operate wholesale or retail businesses, mainly consumer oriented. Colombia, Uruguay and Chile have the most balanced profiles in terms of industry sector participation: around half of their early-stage business activity is in the consumer services sector, with both the transforming and business services sectors showing high activity.

- In Brazil, 30% of entrepreneurs started businesses in the transforming industry sector, the highest proportion of this activity among this group of countries. Three countries have more than 5% of entrepreneurs operating in the extractive sector: Peru, Barbados and Ecuador. Only four countries report more than 18% of business services oriented entrepreneurs: Colombia, Argentina, Chile and Uruguay.

- Among all Latin American and Caribbean countries, above 43% of the entrepreneurs expect to add at least one job within the next five years. In four countries this percentage is over 72%.

- In the majority of the region, medium to high growth expectations fall below the GEM 2015 average for all efficiency-driven economies (21%). Colombia (54.3%) and Chile (33.6%) have the highest proportion of entrepreneurs who expect to generate six or more jobs over the next five years.

- The average in terms of level of innovation for the LAC region (26.5%) is slightly higher than the average for all efficiency-driven economies, and higher than the averages for Africa, as well as Asia and Oceania. The highest innovation levels among the LAC countries can be seen in Chile, where over half of entrepreneurs state they have innovative products or services, followed by Guatemala, with more than one third of entrepreneurs with this characteristic.

- International orientation is not a characteristic of most Latin American and Caribbean countries' businesses. In nine of the 12 countries, more than 60% of entrepreneurs have no customers from external markets. In four economies – Argentina, Brazil, Guatemala and Mexico – entrepreneurs are almost totally oriented to their domestic markets. More than 85% of entrepreneurs in these countries have no customers from other countries. Panama reports the highest level of internationalization among the LAC countries, with 42% of the entrepreneurs in this country having more than 25% of customers from other countries.

THE ENTREPRENEURIAL ECOSYSTEM

- From a regional perspective, the mean score for each of the Entrepreneurial Framework Conditions (EFCs) falls into the low-level performance category. The weakest framework condition (with an average rating of 2.5 out of nine) is school-level entrepreneurship education.

- On the other hand, the experts gave a mid-high rating (6.2) to physical infrastructure, and an average rating to entrepreneurial education at post-secondary level, as well as to social and cultural norms. These three factors have shown steady improvements for all countries in the LAC region over the past five years.

- The regional average for access to entrepreneurial finance (3.4) is relatively weak, below the GEM global average of 4.2. There is consensus among experts in the region that most entrepreneurs finance their ventures through family and friends, or other informal sources that do not have any stake in the business. In general, with the exception of Chile and. to a lesser extent Uruguay, public or government subsidies do not exist.

- Government policies is a low performance EFC for a number of economies in the LAC region. The exceptions are Chile, Mexico and Ecuador whose experts rated government support in their countries as moderate.

- All the countries in the region gave very low ratings to the sufficiency and quality of entrepreneurial education at the school stage, with experts feeling that the education system does not encourage creativity, self-efficacy or personal initiative. However, entrepreneurship education at the post-school stage received more positive ratings.

- All the countries in the region, irrespective of their stage of economic development, are low performers in terms of R&D transfer. Mexico and Uruguay are the only countries where experts believe that the science and technology base moderately allows for the development of competitive technology-based businesses.

- Regarding the availability of and access to professional services for entrepreneurs, Uruguay obtained the best rating (although qualified as slightly sufficient) and Peru the worst. The main problem identified by the experts was that although services and support are available in every country, new businesses cannot afford those services.

- The LAC region obtained an average score for the market dynamic factor, showing relative stability of the markets for goods and services. Argentina, Brazil, Mexico and Uruguay scored slightly above average and have been consistently improving over the years. With regard to entry burdens and aggressive competition for new and growing companies, almost every country in Latin America obtained low scores.

- Physical and services infrastructure is one of the best rated EFCs in the region. Chile, Ecuador, and Panama have the highest ratings with scores over seven for all three countries. The regional average is brought down by low scores in Brazil (4.7) and Puerto Rico (5.5).

- The key areas which the national experts identified as in need of informed policies to support entrepreneurship are entrepreneurial finance; government policies; education; institutional, political and social context; and access to information.

CHAPTER 1

THE LATIN AMERICAN AND CARIBBEAN REGION

1.1 GENERAL CHARACTERISTICS

Latin America and the Caribbean (LAC) comprises 45 countries, dependent territories and overseas departments, of which 24 are in the Caribbean[1], seven in Central America[2], 13 in South America[3] and one in North America[4]. The majority of the countries are middle-income economies, with a GDP (ppp) per capita in the region of USD 10 300. The region comprises more than 20 million square kilometers and all climates of the world are present in it. The three predominant languages are Spanish, Portuguese and French[5]. Five hundred and ninety five million people live in the LAC region, and the employed population represents 67.2% of the total population. Average life expectancy is 74.7 years and the average level of schooling is 13.5 years. **Table 1.1** presents a summary of the main characteristics of each country.

1 Anguilla (GB), Antigua and Barbuda, Netherlands Antilles (Netherlands), Bahamas, Barbados, Cuba, Dominica, Grenada, Guadalupe (France), Haiti, Cayman Islands, Turks and Caicos Islands (GB), Virgin Islands (US), British Virgin islands (GB), Jamaica, Martinique (France), Montserrat (GB), Puerto Rico, Dominican Republic, Saint Barth, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia and Trinidad and Tobago.

2 Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama.

3 Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, French Guyana (France), Paraguay, Peru, Suriname (Netherlands), Uruguay and Venezuela.

4 Mexico.

5 Nowadays, French is spoken only by 3% of the population.

1.2 THE EVOLUTION OF THE ECONOMIC SITUATION

In the last 15 years, the Latin American and the Caribbean region has undergone significant changes, mainly for the better. Many countries in the region have adopted prudent macroeconomic policies and are now better prepared to face external shocks. The middle class has grown, while poverty rates are less than half of what they were 15 years ago. There have been significant investments in infrastructure, education and the productive capacity of firms (de la Torre et al., 2016). Since 2003, the Latin American and the Caribbean countries (LAC) have recorded a level of economic performance surpassed only by Asia and very similar to that of Africa.

According to Powell (2015), the increase in raw materials´ prices (see **Figure 1.1**) was associated with the period of the Great Moderation in the OECD countries and the years of the Great Expansion of China (2003 to 2008). This resulted in Latin America and the Caribbean being increasingly dependent on the export of commodities, which impacted on all aspects of its economy and in particular on the fiscal and employment side.

Table 1.1: Selected key indicators for LAC countries

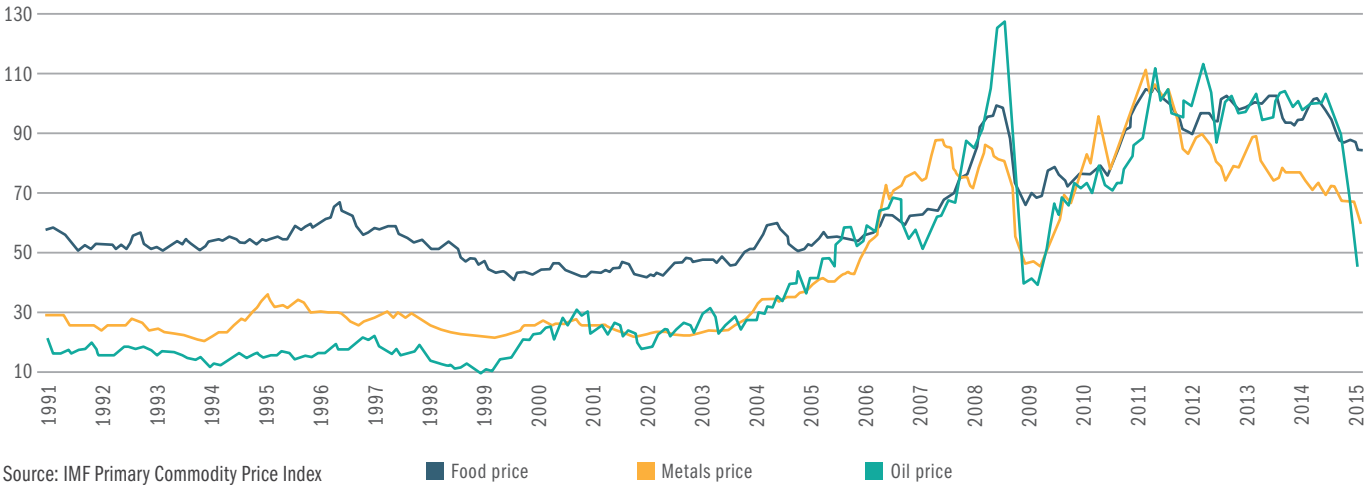
Economy	Surface (km2)	Population	GNP (2015) (US$ millions)	GNPPC (2015) (PPP)	Income level	Total GNP growth (2015) (%)	GNP per capita growth (2015) (%)	Gini index	Education	Health
Anguilla	102	13 477	104	8600	N.D	N.D	N.D	N.D	N.D	N.D
Antigua & Barbuda	443	92 436	2060	23071	High income	3,7	2,6	N.D	N.D	N.D
Argentina	2 780 400	43 132 000	953029	22459	Medium high income	0,5	-0,6	42,3	0,816	0,866
Bahamas	13940	377 374	9394	17502	High income	1,2	-0,1	N.D	N.D	N.D
Barbados	431	279 912	4621	16500	High income	1	0,7	N.D	N.D	N.D

Economy	Surface (km2)	Population	GNP (2015) (US$ millions)	GNPPC (2015) (PPP)	Income level	Total GNP growth (2015) (%)	GNP per capita growth (2015) (%)	Gini index	Education	Health
Belize	22 966	369 000	3034	8338	Medium high income	1,9	-0,2	53,3	N.D	N.D
Bolivia	1 098 581	10 520 000	74836	6530	Low middle income	4	2,4	46,6	0,733	0,727
Brazil	8 514 877	204 519 000	3259000	15941	Medium high income	-3,8	-4,7	52,7	0,844	0,83
British Virgin Islands	153	25 098	N.D	N.D	High income	N.D	N.D	N.D	N.D	N.D
Cayman Islands	260	69 000	N.D	N.D	High income	N.D	N.D	N.D	N.D	N.D
Chile	756 102	18 006 000	431802	24170	High income	2,1	1	50,8	0,839	0,922
Colombia	1 141 748	49 987 000	682977	14164	Medium high income	3,1	2,1	53,5	0,733	0,831
Costa Rica	51 100	4 851 000	75138	15534	Medium high income	2,8	1,7	48,6	0,75	0,922
Cuba	109 884	11 252 000	N.D	N.D	Medium high income	2,7	2,5	N.D	0.876	0,912
Dominica	754	72 000	780	11029	Medium high income	2,8	2,3	N.D	N.D	N.D
Dominican Republic	48 442	9 980 000	144052	13347	Medium high income	7	5,7	45,7	0,683	0.822
Ecuador	283 560	16 279 000	192728	11839	Medium high income	0,3	-1,2	46,6	0,682	0,869
El Salvador	21 041	6 514 000	52776	8777	Low middle income	2,5	2,1	41,8	0,672	0,809
French Guyana	83 534	262 000	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Grenada	344	109 590	1286	12091	Medium high income	3,4	3	N.D	N.D	N.D
Guadalupe	1628	405 000	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Guatemala	108 889	16 176 000	125318	7704	Low middle income	4,1	2,1	52,4	0,594	0,802
Guyana	214 970	801 194	5814	7279	Medium high income	3	2,6	44,6	N.D	N.D
Haiti	27 750	10 994 000	19576	1846	Low income	1,7	0,3	59,2	0,422	0,663
Honduras	112 492	8 950 000	40895	4849	Low middle income	3,6	2,2	57.4	0,644	0,828
Jamaica	10 991	2 889 187	25162	8941	Medium high income	0,9	0,7	45,5	N.D	N.D
Martinique	1 128	383 000	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Mexico	1 973 000	121 006 000	2224000	18370	Medium high income	2,5	1,2	48,1	0,711	0,885
Montserrat	102	5 879	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Nicaragua	130 375	6 459 000	31618	5018	Low middle income	4,9	3,8	40,5	0,583	0,844
Netherlands Antilles	960	227 049	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Panama	74 177	3 764 000	83421	21634	Medium high income	5,8	4,1	51,9	0,689	0,885
Paraguay	406 752	7 003 000	61587	8776	Medium high income	3	1,7	48	0,661	0.804
Peru	1 285 000	31 153 000	550226	12638	Medium high income	3,3	1,9	45.3	0.728	0.843
Puerto Rico	9 104	3 508 000	86300	24030	High income	-0,6	0,6	N.D	N.D	N.D

Economy	Surface (km2)	Population	GNP (2015) (US$ millions)	GNPPC (2015) (PPP)	Income level	Total GNP growth (2015) (%)	GNP per capita growth (2015) (%)	Gini index	Education	Health
Saint Barth	24	10 000	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Saint Kitts & Nevis	261	51 538	1282	21073	High income	4,6	3,4	N.D	N.D	N.D
Saint Vincent & the Grenadines	389	102 918	1252	11380	Medium high income	1,5	1,4	N.D	N.D	N.D
Saint Lucia	616	173 907	1955	11432	Medium high income	1,8	1	42,6	N.D	N.D
Suriname	163 820	551 000	9766	17502	Medium high income	1,5	0,6	57,6	N.D	N.D
Trinidad & Tobago	5 128	1 341 953	43914	32346	High income	1	0,6	N.D	N.D	N.D
Turks & Caicos Islands	417	33 098	N.D	N.D	High income	N.D	N.D	N.D	N.D	N.D
Uruguay	176 215	3 310 000	73056	21387	High income	1	0,6	41.3	0,861	0,88
Venezuela	916 445	30 620 000	403322	12638	Medium high income	-5,7	-7	44,8	0,789	0,841

Sources: World Bank, United Nations Development Program, ECLAC.

Figure 1.1: Primary products price evolution, LAC region



Source: IMF Primary Commodity Price Index

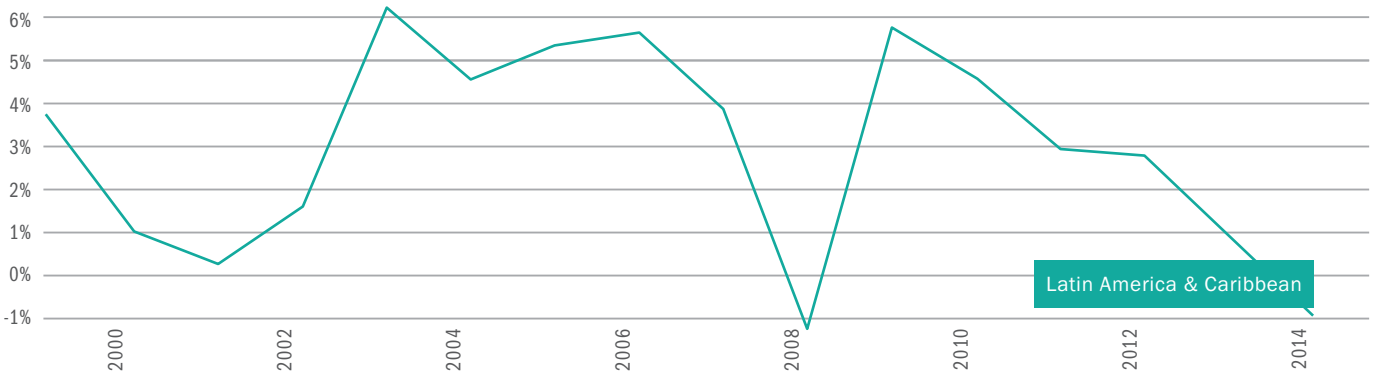
Since the economic crisis that began in 2008, the OECD demand has stagnated while the growth rate of China has decreased. This affected the price of raw materials, firstly affecting metals prices. The decline in the prices of raw materials (ranging from 30% to 50% compared to its maximum value, depending on the country) has led to a marked reduction in export earnings. Combined with macroeconomic imbalances and microeconomic distortions in some economies in the region, this has resulted in sharp declines in private investment. **Figure 1.2** indicates that 2015 marks the fifth consecutive year that the LAC region has faced a continuing decline in growth, as a result of an external environment particularly adverse to commodity exporters.

1.3 THE EVOLUTION OF THE SOCIAL SITUATION

Over the past two decades, the LAC region has experienced a profound social transformation. As can be seen in **Figure 1.3**, poverty in Latin America decreased from 48.4% to 29.2% between the early nineties and 2015, while extreme poverty decreased from 22.6% to 12.4% over the same period (ECLAC, 2015). Strong economic growth, together with complementary social programs, was responsible for this progress. The social policies implemented contributed to a third of the reduction in the number of poor people, while the remaining two thirds were the result of labor income during the boom years. However, while the number of poor people has been reduced by almost 70 million people in the last decade, in 2015 there are still 175 million poor people and 75 million homeless people in the region.

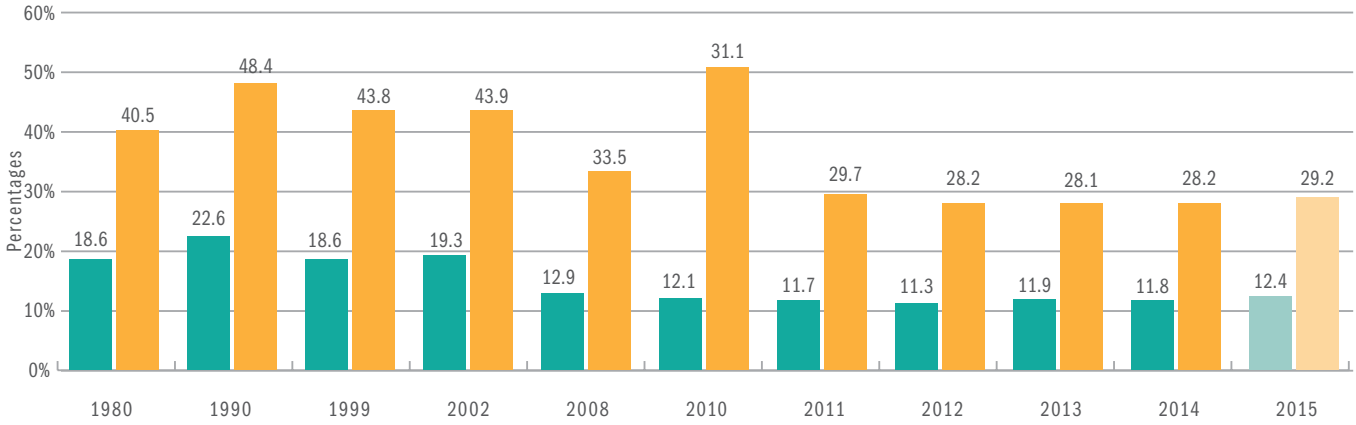
In addition, the middle class increased by about 50 million people between 2003 and 2009 (Ferreira et al., 2013). There has also been substantial progress in income distribution. **Figure 1.4** indicates that in the period from 2002 to 2014, there has been a reduction in the concentration of income in all the countries in the Latin American region. There are concerns, however, that the slowdown in economic growth in the region may jeopardize these social gains.

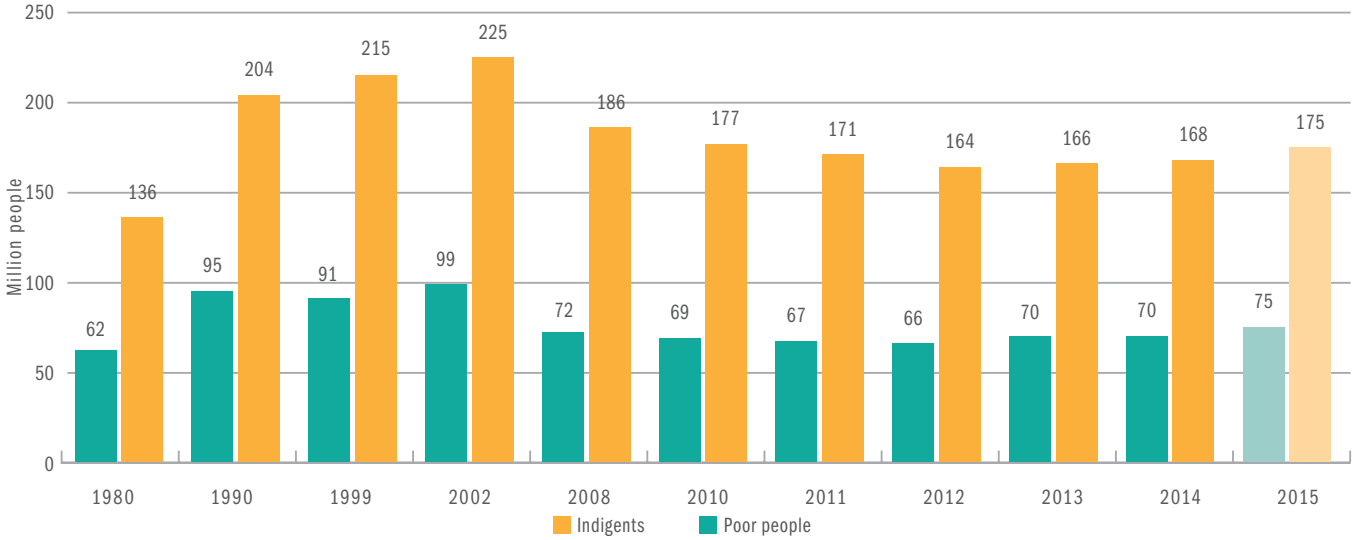
Figure 1.2: GDP per capita growth rate 2000-2015 (as %), LAC region



Source: World Bank, own data and OECD national accounts

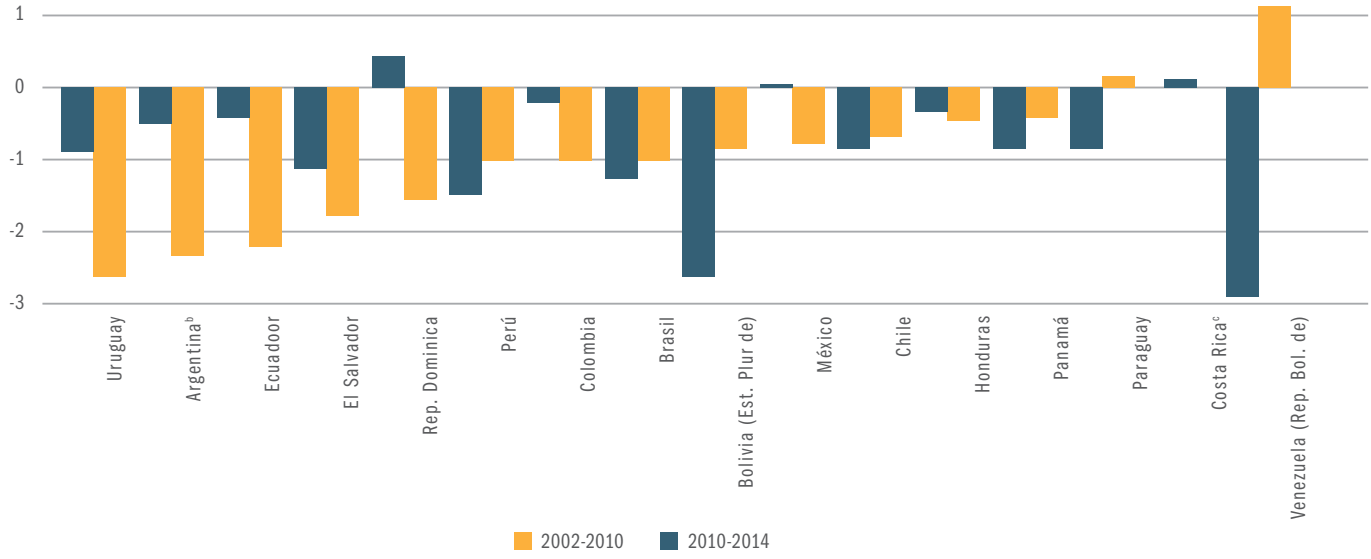
Figure 1.3: Evolution of poverty and indigence in LAC region, 1980-2015*





Source: United Nations Economic Commission for Latin America and the Caribbean (ECLAC) , based on tabulations of household surveys of the respective countries.
*Estimation for 19 countries in the region, not including Haiti. Cuba is not included. 2015 data are projections.

Figure 1.4: Annual Gini coefficient variation (%) in 16 Latin American countries, 2002-2010 and 2010-2014[a]



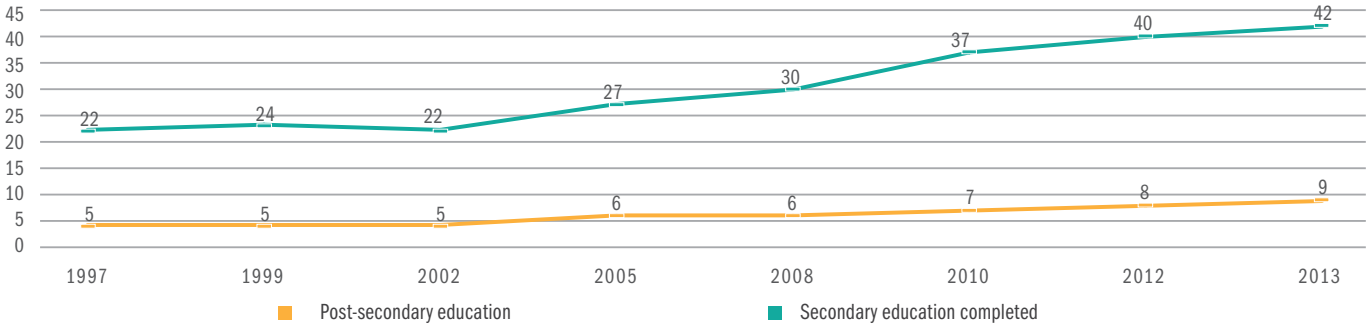
Source: United Nations Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys of the respective countries.

[a] The indicated years were considered, except in the cases of Argentina (2002, 2009 and 2012), Bolivia (Plurinational State of) (2001, 2009 and 2013), Brazil (2001, 2009 and 2014), Chile (2001, 2009 and 2013), El Salvador (2001, 2009 and 2014), Honduras (2002, 2010 and 2013), Mexico (2002, 2008 and 2014) and Venezuela (Bolivarian Republic of) (2002, 2010 and 2013).

[b] Urban areas.

[c] Information for the period 2002-2014 is not included because the data are not strictly comparable.

Figure 1.5: Educational achievement (in %) of the poorest quintile relative to the richest quintile, by level of education, 1997-2013, for 18 Latin American countries



Source: United Nations Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys of the respective countries.

Educational progress in the region has also taken place. In 2013, 92% of the population aged 15 to 19 had completed primary education (ECLAC, 2015) while the percentage of the population with secondary education increased from 37% in 1997 to 58% in 2013. In 2013, 80% of young people between 20 and 24 years in the richest quintile had completed high school, while the rate was 34% for the poorest quintile. Expressing these rates in relative terms, all the young people in the poorest quintile who completed secondary education are equivalent to 42% of young people in the richest quintile who achieved a similar educational attainment. In 1997 this ratio was only 22%, indicating that significant progress has taken place in terms of educational parity (**Figure 1.5**). The gap in terms of post-secondary education is much higher. In 2013, 46% in the richest quintile reached this level of education compared to 4% in the poorest quintile, resulting in a relative rate of 9%. Although this gap is cause for concern, **Figure 5** indicates that there has been progress in this area over time (from 5% in 1997 to 9% in 2013).

1.4 REGIONAL PERFORMANCE IN KEY SOCIO-ECONOMIC INDICES

Table 1.2 shows the ranking of each LAC country in each of the main indices that measure human development, ease of doing business, economic freedom and innovation, namely:

- The Human Development Index (the United National Program for Development)
- The Global Competitiveness Index (World Economic Forum)
- The Ease of Doing Business Index (World Bank)
- The Index of Economic Freedom (Heritage Foundation and The Wall Street Journal)
- The Global Innovation Index (World Intellectual Property Organization)

Table 1.2: LAC countries' performance in key socio-economic indices, 2015/16

Economy	Human Development Index		Competitiveness Index		Ease of Doing Business Index	Economic Freedom Index		Innovation Index	
	Index	Ranking (188 Countries)	Index	Ranking (160 countries)	Ranking (189 countries)	Index	Ranking (178 countries)	Index	Ranking (141 Countries)
Anguilla	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antigua and Barbuda	0.783	58	ND	ND	104	ND	ND	ND	ND
Argentina	0.836	40	3.8	106	121	43.80	169	34.30	72
Bahamas	0.789	55	ND	ND	106	ND	ND	ND	ND
Barbados	0.785	57	ND	ND	119	68.30	45	42.47	37
Belize	0.715	101	ND	ND	120	57.40	118	ND	ND
Bolivia	0.662	119	3.6	117	157	47.40	160	28.58	104
Brazil	0.755	75	4.1	75	116	56,50	122	34.95	70
British Virgin Islands	ND	ND	ND	ND	ND	ND	ND	ND	ND

Economy	Human Development Index		Competitiveness Index		Ease of Doing Business Index	Economic Freedom Index		Innovation Index	
	Index	Ranking (188 Countries)	Index	Ranking (160 countries)	Ranking (189 countries)	Index	Ranking (178 countries)	Index	Ranking (141 Countries)
Cayman Islands	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chile	0.832	42	4.6	35	48	77.70	7	41.20	42
Colombia	0.72	97	4.3	61	54	70.80	33	36.41	67
Costa Rica	0.766	69	4.3	52	58	67.40	50	38.59	51
Cuba	0.769	67	ND	ND	ND	29.80	177	ND	ND
Dominica	0.724	94	ND	ND	91	67.00	53	ND	ND
Dominican Republic	0.715	101	3.9	98	93	61.00	88	30.60	89
Ecuador	0.732	88	4.1	76	117	48.60	159	26.87	119
El Salvador	0.666	116	3.9	95	86	65.10	63	29.31	99
French Guyana	ND	ND	ND	ND	ND	ND	ND	ND	ND
Grenada	0.75	79	ND	ND	135	ND	ND	ND	ND
Guadalupe	ND	ND	ND	ND	ND	ND	ND	ND	ND
Guatemala	0.627	128	4.1	78	81	61.80	82	28.84	101
Guyana	0.636	124	3.6	121	137	55.40	127	30.75	86
Haiti	0.483	163	3.2	134	182	51.30	150	ND	ND
Honduras	0.606	131	4	88	110	57.70	113	27.48	113
Jamaica	0.719	99	4	86	64	67.50	48	29.95	96
Martinique	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mexico	0.756	74	4.3	57	38	65.20	62	38.03	57
Montserrat	ND	ND	ND	ND	ND	ND	ND	ND	ND
Netherlands Antilles	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nicaragua	0.631	125	3.8	108	125	58.60	109	23.47	130
Panama	0,78	60	4.4	50	69	64.80	66	36.80	62
Paraguay	0.679	112	3.6	118	100	61.50	83	30.69	88
Peru	0.734	84	4.2	69	50	67.40	49	34.87	71
Puerto Rico	ND	ND	ND	ND	57	ND	ND	ND	ND
Saint Barth	ND	ND	ND	ND	ND	ND	ND	ND	ND
Saint Kitts and Nevis	0.752	77	ND	ND	124	ND	ND	ND	ND
Saint Vincent and the Grenadines	0.72	97	ND	ND	111	68.80	40	ND	ND
Saint Lucia	0.729	89	ND	ND	77	70.00	38	ND	ND
Suriname	0.714	103	ND	ND	156	53.80	134	ND	ND
Trinidad and Tobago	0.772	64	3.9	89	88	62.90	73	32.18	80
Turks and Caicos Islands	ND	ND	ND	ND	ND	ND	ND	ND	ND
Uruguay	0.793	52	4.1	73	92	68.80	41	35.76	68
Venezuela	0.762	71	3.3	132	186	33.70	176	22.77	132
Virgin Islands	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sources: http://hdr.undp.org/es/data, http://reports.weforum.org/global-competitiveness-report-2015-2016/, http://www.doingbusiness.org/, https://www.globalinnovationindex.org/gii-2015-report#, http://www.heritage.org/index/ranking, consulted on 03/08/2016.

Table 1.3: Relative positions of LAC countries with respect to key socio-economic indices, 2015

Distribution	Human development		Competitiveness		Ease of doing business		Economic freedom		Innovation	
	Quantity	%	Quantity	%	Quantity	%	Quantity	%	Quantity	%
Top 25%	2	6%	1	5%	1	3%	5	17%	0	0%
2nd 25%	17	53%	9	41%	14	42%	12	41%	9	39%
3rd 25%	12	38%	9	41%	14	42%	5	17%	10	43%
Bottom 25%	1	3%	3	14%	4	12%	7	24%	4	17%

Table 1.3 was prepared in order to assess the performance of the LAC region relative to overall global performance in terms of each of the above indices. For each index, four groups were created, each containing a quarter of the countries which were assessed, globally, in terms of that specific indicator. **Table 1.3** indicates the number as well as percentage of LAC countries placed within each of the groups.

Table 1.3 indicates that most of the countries in the LAC region fall into the central groups for all five indices, namely those that exhibit a performance close to the average. The overall performance of the region can be assessed by noting the relative representation of LAC countries within the top and bottom 25% for each index. The index where the region has the worst performance is innovation, with no LAC country within the best performing 25% of the rated countries and four in the worst group. The economic freedom index delivers the region's best performance in the top group (five countries); however, the region also has its highest representation in the bottom 25% in terms of this index, with a quarter of LAC countries among the worst performing group. In global terms, the LAC region's best performance is in the Index of Human Development, with only one country (Haiti) in the bottom group, two countries (Argentina and Chile) in the top group and more than half in the second 25%.

1.5 ECONOMIC OUTLOOK FOR THE LAC REGION

As has been previously mentioned, the economic situation in the LAC is highly dependent on the international context. In that sense, the weak growth prospects in advanced economies and the economic situation in China is likely to lead to a scenario where commodity prices will remain low. While interest rates will remain at low levels (which is favorable for the region), the region's volatility has increased, so the situation may be reversed in the not too distant future. Because of the combination of these factors, the most likely scenario for 2016 is that economic activity in the LAC will be contracted for the second consecutive year – the first time that this has happened since the debt crisis of 1982 to 1983. However, this does not reflect a homogenous reality at individual country level, as can be seen in **Figure 1.6**. While some countries have managed to adjust successfully to external shocks, thanks to stable economic policies, others have experienced a significant drop in their economic activity levels. There are also differences at sub-regional level. While in the case of South America the fall in prices of raw materials has had a very negative impact, Mexico, Central America and the Caribbean have benefited from the recovery of the US economy and – in many cases – from lower oil prices.

Figure 1.6: Growth projections in the LAC region, 2016[a]

Source: Prepared by Alejandro Werner, from IMF, WEO report database and calculations of the IMF staff. http://blog-dialogoafondo.org/?p=6495.

a The historical average refers to the average growth in 2000 - 2013

SOUTH AMERICA

Within this sub-region, there are several countries where the foundations for growth remain firm, enabling them to avoid an economic contraction. These include a number of countries on the Pacific coast (Chile, Peru, and Colombia), two central countries (Bolivia and Paraguay) and Uruguay. In the case of Chile and Peru, the solid fiscal policies made it possible to apply countercyclical policies during the period 2014 - 2015. In Bolivia, on the other hand, the growth of public debt and current account deficits are warning signs.

The LAC region's growth average is negatively influenced by the slowdown in important economies, such as Brazil and Venezuela. Given its size, Brazil almost constitutes a sub-region itself. The country has gone through an explosive combination of problems in its political system, exacerbated by significant economic frailties. *The Global Competitiveness Report 2015/16* notes that Brazil has experienced a dramatic decline in its ranking (from 57th to 75th) with a large fiscal deficit, rising inflationary pressure and corruption scandals impacting negatively on its competitiveness. The result has been a contraction of 3.8% in 2015 and a further forecast decline in 2016 of 3.5%.

In the case of both Venezuela and Ecuador, the decline in oil prices has had a major impact on the economy. In the case of Venezuela, the problem was worsened by political problems and fiscal imbalances. According to the IMF (IMF, 2016), Venezuela's GDP contracted by 5.7% in 2015 and is projected to contract by an additional 8% in 2016 and 4.5% in 2017. In 2015, annual inflation stood at 720%. In the case of Ecuador, internal adjustments in response to the adverse external scenario have become increasingly difficult because of the dollarization of the economy, which will probably lead to a recession scenario during 2016.

In Argentina, a new government has recently assumed power and has begun the process of adjusting the economy, which suffered serious distortions caused by the economic policies of the previous government. These necessary adjustments are likely, in the short-term, to result in a decrease in economic activity.

MEXICO, CENTRAL AMERICA AND THE CARIBBEAN

Brighter spots with respect to the LAC region include economies in the north such as Mexico, Central America and the Caribbean – economies linked to the US. The Mexican economy is closely tied to the US economy and its economic performance is paralleling the improved performance of the US. As the second biggest country in the region, Mexico has a large market and the strengthening of the domestic demand is another reason why there are favorable perspectives for this economy.

There are several countries in Central America and the Caribbean (Guatemala, Honduras, Costa Rica, Panama, Dominican Republic and Guyana) that are benefiting from a number of factors. Many of these countries are oil importers, so the decline in international price has been good news for them. Moreover, they have benefited from the strengthening US economy – either from trade ties or tourism.

Table 1.4 details the growth projections for the region, based on IMF data. It can be seen that the region as a whole is predicted to show some degree of recovery in 2017, moving into positive growth projections. However, there is considerable divergence in the growth prospects of the different sub-regions and countries, highlighting the heterogeneity and competitiveness divide among the countries in the region.

Table 1.4: Percentage change in real GDP growth1 for the LAC region

	Forecasts		
	2015	2016	2017
Latin America and the Caribbean	-0,1	-0,5	1,5
South America2	-1,4	-2	0,8
Excl. Argentina, Brazil, Ecuador, Venezuela	2,9	2,6	3
Central America	4,1	4,3	4,3
The Caribbean	4	3,5	3,6
Latin America			
Argentina	1,2	-1	2,8
Brazil	-3,8	-3,8	0
Chile	2,1	1,5	2,1
Colombia	3,1	2,5	3
Mexico	2,5	2,4	2,6
Peru	3,3	3,7	4,1
Venezuela	-5,7	-8	-4,5

Source: Prepared by Alejandro Werner, from IMF, WEO report database and calculations of the IMF staff. http://blog-dialogoafondo.org/?p=6495

[1] Regional aggregates are averages weighted by GDP in terms of purchasing power parity .

[2] Includes Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay and Venezuela.

Looking ahead, in order to create long-term sustainable growth and continue on the path of development, the region will have to adopt different strategies than in the past. These should include a much greater emphasis on increasing the prevalence of dynamic enterprises based on innovation. A World Bank report on entrepreneurship in Latin America and the Caribbean notes the following:

"Thus, with a reduction in the tail winds that favored the LAC during recent years, the region will have to resort to its own means to stimulate growth. Moreover, these means are really one: productivity. In a context where domestic savings are low and foreign capital inflows diminish, only productivity gains can sustain income growth.

"The leaders of the region are fully aware of how important it is to stimulate productivity, but what does this actually entail? This report argues that it consists of establishing an environment in which entrepreneurs can emerge, compete and innovate. It is about building an entrepreneurial and innovative class so that the best businesses (those that export goods, services and even capital) no longer pale in comparison with leading entrepreneurs of other regions." (Lederman et al., 2014).

While the potential benefits of increased entrepreneurship are widely recognised, better evidence is needed to identify the most effective policies for entrepreneurship promotion in the LAC region. Understanding the reality of entrepreneurial activity in the region is key to the formulation of effective public policy aimed at stimulating entrepreneurship and enhancing SME development, both within their own countries and in the region as a whole.

CHAPTER 2

THE GEM MODEL AND METHODOLOGY[1]

1 This chapter is an eclectic work extracting ideas and sentences from several GEM documents, mainly GEM Global Report 2015, GEM Caribbean Report 2014, and Innovación Empresarial: Arte y Ciencia en la creación de Empresas; personal communications between Rodrigo Varela Villegas and Leonardo Veiga; and numerous documents from the Research Innovation Advisory Committee of GEM.

2.1 INTRODUCTION

The Global Entrepreneurship Monitor (GEM) project is an annual assessment of the entrepreneurial activity, aspirations and attitudes of adult individuals across a wide range of countries. Initiated in 1997 as a partnership between London Business School and Babson College, the first study in 1999 covered 10 countries. Since then, nearly 100 national teams from every corner of the globe have participated in the project, which continues to grow annually. GEM groups these different economies into geographic regions: sub-Saharan Africa, the Middle East and North Africa (MENA), Latin America and Caribbean (LAC), Asia Pacific/South Asia, Europe (distinguishing economies that are part of the European Union from those outside the European Union), and North America. In 2015, 60 countries participated in the study, collectively representing 72% of the world´s population and 90% of the world's total GDP. This makes GEM the largest ongoing study on entrepreneurship and entrepreneurial dynamics in the world.

GEM is unique because, unlike other entrepreneurship data sets that measure newer and smaller firms, GEM studies the behavior of individuals as well as their perceptions, aspirations and intentions with respect to starting and managing a business. This approach provides a more detailed picture of entrepreneurial activity than the one that could be found in official national registry data sets.

GEM focuses on four main objectives:

- Allowing for comparisons relating to the levels and characteristics of entrepreneurial activity among different economies, geographic regions and economic development levels;
- Uncovering factors that encourage or hinder entrepreneurial activity, especially related to societal values, personal attributes and the entrepreneurship ecosystem;
- Providing a platform for assessing the extent to which entrepreneurial activity influences economic growth within individual economies; and
- Guiding the formulation of effective and targeted policies aimed at stimulating entrepreneurship capacities in an economy.

2.2 THE GEM CONCEPTUAL MODEL

Since its inception, the GEM survey was conceptualized to explore the interdependency between entrepreneurship and economic development. The GEM conceptual framework derives from the basic assumption that national economic growth is the result of the personal capabilities of individuals to identify and seize opportunities, and that this process is affected by environmental factors that influence individuals' decisions to pursue entrepreneurial initiatives. **Figure 2.1** shows the main components and relationships into which GEM divides the entrepreneurial process and how it classifies entrepreneurs according to the level of their organizational development. This conceptual model depicts the multifaceted nature of entrepreneurship, recognizing the proactive, innovative and risk-responsive behavior of individuals, always in interaction with the environment. The social, cultural, political and economic context is represented through the National Framework Conditions (NFC) and the Entrepreneurial Framework Conditions (EFC).

The NFCs take into account the advancement of each society through the phases of economic development. Countries participating in GEM are classified as factor-driven economies, efficiency-driven economies or innovation-driven economies, in line with the categories used by the World Economic Forum in its annual Global Competitiveness Reports. This classification into phases of economic development is based on the level of GDP per capita and the extent to which an economy is factor-driven, i.e. based on factor endowments, primarily unskilled labor and natural resources (Schwab K., et al, 2016).

In factor-driven economies, companies compete on the basis of price and sell basic products or commodities, with their low productivity reflected in low wages. Maintaining competitiveness at this stage of development hinges primarily on well-functioning public and private institutions, a well-developed infrastructure, a stable macroeconomic environment and a healthy workforce that has received at least a basic education.

As a country becomes more competitive, productivity will increase and wages will rise with advancing development. Countries will then move into the efficiency-driven stage of development, when they must begin to develop more efficient production processes and increase product quality because wages have risen and they cannot increase prices. At this point, competitiveness is increasingly driven by higher education and training, efficient goods markets, well-functioning labor markets, developed financial markets, the ability to harness the benefits of existing technologies, and a large domestic or foreign market.

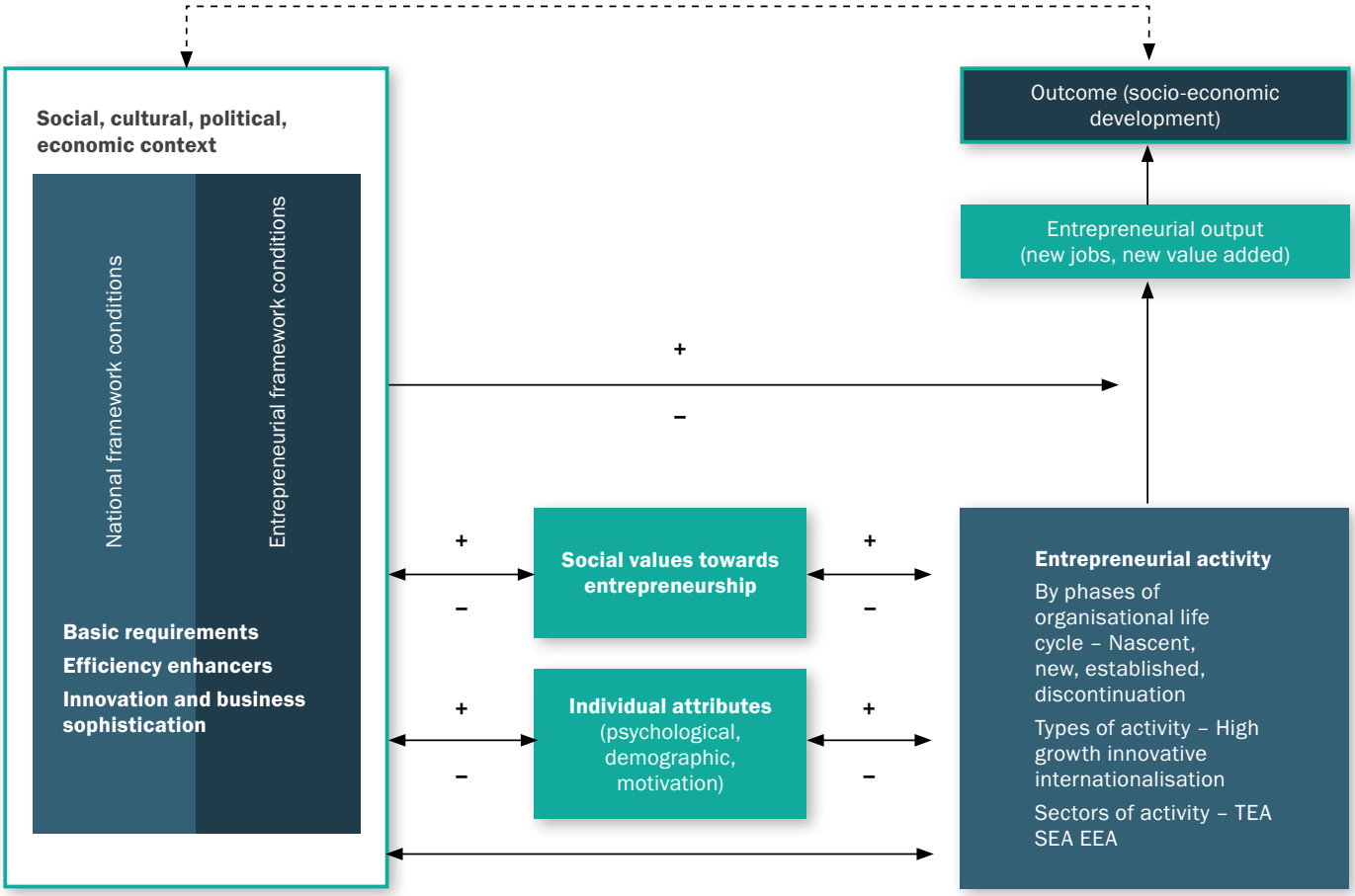
Finally, as countries move into the innovation-driven stage, wages will have risen by so much that they will be able to sustain those higher wages and the associated standard of living only if their businesses are able to compete through new and unique products. At this stage, companies must compete by producing new and different goods using the most sophisticated production processes and by innovating new ones.

The EFCs relate more specifically to the quality of the entrepreneurial ecosystem and include: entrepreneurial finance, government policy, government entrepreneurship programs, entrepreneurship education, research and development (R&D) transfer, commercial and legal infrastructure, internal market dynamics and entry regulation, physical infrastructure, and cultural and social norms.

It is important for GEM, not only to know the quantity of the adult population (defined as those aged between 18 and 64 years of age) in any stages of the entrepreneurial pipeline in a given year, but also to understand the entrepreneurial profiles and the characteristics of the individuals who are in each of the stages. For this reason, the research takes into consideration variables associated with industry and impact, in addition to demographic elements.

As indicated in **Figure 2.1**, the GEM model recognizes that entrepreneurship is part of a complex feedback system, and makes explicit the relationships between social values, personal attributes and various forms of entrepreneurial activity. It also recognises that entrepreneurship can mediate the effect of the NFCs on new job creation and new economic or social value creation. Entrepreneurial activity is thus an output of the interaction of an individual's

Figure 2.1: The GEM conceptual framework



Source: GEM Global Report 2015/16

perception of an opportunity and capacity (motivation and skills) to act upon this AND the distinct conditions of the respective environment in which the individual is located. In addition, while entrepreneurial activity is influenced by the framework conditions in the particular environment in which it takes place, this activity ultimately benefits this environment as well, through social value and economic development.

It is important, therefore, to remain aware that all components of the environment in which women and men act entrepreneurially (or cannot act proactively and innovatively) are mutually dependent. This dependency demands a holistic approach, not only in research, but also in designing appropriate policies for building a supportive environment in which entrepreneurial behavior can flourish.

Social values toward entrepreneurship

This includes aspects such as the extent to which society values entrepreneurship as a good career choice; whether entrepreneurs have high societal status; and the extent to which media attention to entrepreneurship is contributing to the development of a positive entrepreneurial culture.

Individual attributes

This includes different demographic factors (such as gender, age, geographic location); psychological factors (including perceived capabilities, perceived opportunities, fear of failure); and motivational aspects (necessity- versus opportunity- based ventures, improvement-driven ventures).

Entrepreneurship activity

This is defined according to the phases of the life cycle of entrepreneurial ventures (nascent, new business, established business, discontinuation); according to type of activity (high growth, innovation, internationalization); and sector of activity (Total Early-stage Entrepreneurship Activity – TEA, Social Entrepreneurship Activity - SEA, Employee Entrepreneurship Activity – EEA).

2.3 GEM METHODOLOGY

Given that GEM's goal is to provide a comprehensive view of entrepreneurship across the globe, it aims to measure the attitudes of the population, and the activities and characteristics of individuals involved in various phases and types of entrepreneurial activity.

The adult population is the object of the study, and for that reason a representative sample is interviewed in order to learn about their attitudes, activities and aspirations towards the intention, creation, growth and closure aspects of entrepreneurship. Research teams in each participating economy administer an Adult Population Survey (APS) of at least two thousands (2 000) adults annually.

Complementing the APS is a National Expert Survey (NES), which gathers in-depth opinions from selected national experts about the factors that have an impact on the nature and level of entrepreneurship in each economy. At least four experts from each of the Entrepreneurial Framework Condition categories must be interviewed, making a minimum total of 36 experts per country. In order to construct a balanced and representative sample, the experts are drawn from entrepreneurs, government, academics, and practitioners in each country.

In addition to the APS and the NES, GEM uses secondary sources related to socio-economic variables of the countries, which provide a series of data about each participant country, such as: population, level of income, employment and unemployment rates, investment in research and development, commercial and physical infrastructure, competitiveness, risk indicators, corruption levels, national gross product per capita and ease of doing business within the country. This data is gathered by the GEM headquarters from sources such as the World Bank, International Monetary Fund, World Economic Forum, OCDE, UN, USA Census, EU, UNESCO, Doing Business Report and Heritage Foundation, as well as from many other secondary sources of information.

All the data is analyzed and harmonized by the GEM central specialized data team. After all the statistical process to assure quality of the data are complete, the indicators are developed for each one of the countries and regions and the global report is produced. Every country has the responsibility of producing its own report, while regional reports such as this one are developed by the researchers of each region with the support of the GEM consortium.

CHAPTER 3

THE LATIN AMERICAN AND CARIBBEAN ENTREPRENEURIAL PIPELINE

Twelve countries in Latin America and the Caribbean – namely Argentina, Barbados, Brazil, Chile, Colombia, Ecuador, Guatemala, Mexico., Panama, Peru, Puerto Rico and Uruguay – participated in the 2015 GEM survey, which is a coverage of 82% in terms of population and 88% of the GDP of the region. These countries are all classified as efficiency-driven economies, with the exception of Puerto Rico, which is classified as innovation-driven. The remainder of this report will focus on these 12 countries, providing macro-level insights across the region, as well as country-level insights into the people who participate in different phases of entrepreneurial activity.

3.1 THE ENTREPRENEURIAL PIPELINE CONCEPT

In order to analyze the process of developing new enterprises within a community (city, region, country, group of countries), it is essential to identify all stages of the entrepreneurial process and quantify what happens in each one of them. Only in that way is it possible to formulate policies that can effectively solve the imperative that every economy has: to generate new enterprises with the potential to survive, grow and expand, and in parallel with this, create a group of entrepreneurial leaders, trained to repeat the process many times.

The concept of the 'pipeline', developed many years ago in engineering, allows for the analysis of processes with several stages. The pipeline concept is a physical model based on fluid mechanics, which uses the fundamental principle of mass balance equation for each stage, formulated as:

$$Outputs_j = Inputs_j - Losses_j$$

The inputs to step 'j+1' are the outputs of step 'j'. The subsequent comparison of inputs and outputs of each stage enables one to identify the amount of losses (leaks, discontinuities, deaths, etc.), and from this data, it is possible to propose solutions and improvements that should be implemented at each stage of the process. The final stage is a tank that accumulates all the net flows that get to that stage.

Varela and Soler (2013) adapted this idea in order to analyze the results of the GEM study. They integrated the pipeline concept (**Figure 3.1**) with the general GEM model, making some adjustments in order to develop the Entrepreneurial Pipeline Model which, as described in **Figure 3.2**, takes into account six stages. All these stages are influenced by the Entrepreneurship Framework Conditions (EFCs), which are "the necessary oxygen of resources, incentives, markets and support institutions to the growth of new companies" (Bosma et al. 2008).

The Entrepreneurial Pipeline Model captures, in figures, the complex system of culture, economy, support systems and institutions that will receive and channel people through entrepreneurship, identifying the stages at which they will drop out (leaks) and those that will end the process as established entrepreneurs.

Figure 3.1: Pipeline concept

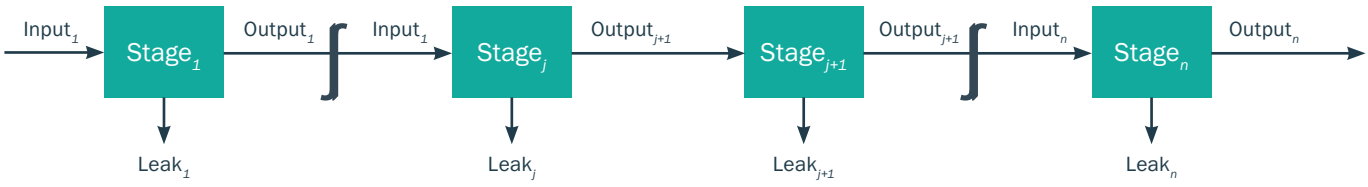
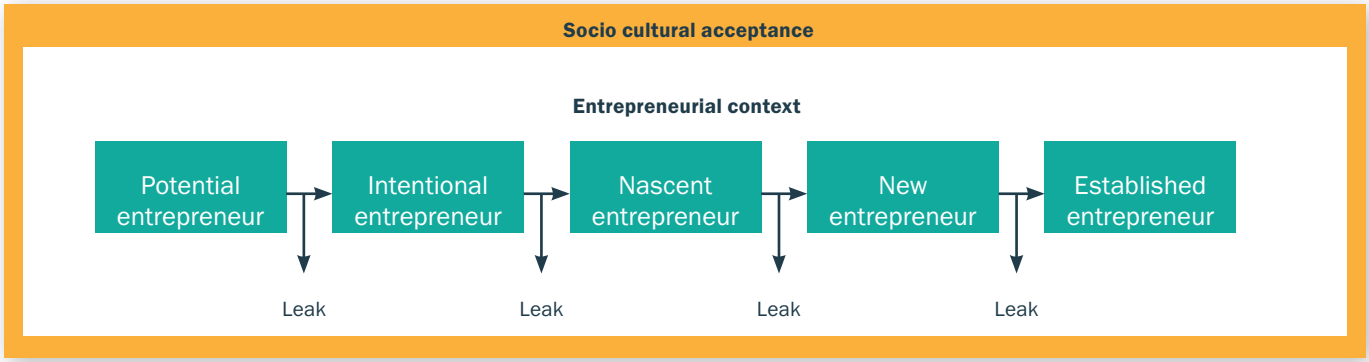


Figure 3.2: Entrepreneurial pipeline stages



The definitions and considerations for each of the six stages of the entrepreneurial pipeline are:

Socio-cultural acceptance: The entrepreneurial process is a social process executed by people living in a specific cultural and social milieu. For that reason, the first stage measures the percentage of the population that has a positive perception about entrepreneurship. In the GEM survey, people are asked whether they:

- Consider starting a new business is a good career choice;
- Associate entrepreneurs with high status; and
- Believe that there is a lot of positive media attention for entrepreneurship within their country.

A positive perception of the three abovementioned aspects will foster motivation, professional orientation, commitment and resilience in people, thereby increasing the proportion of adults willing to try to start up new enterprises, and the number of active entrepreneurs willing to keep their business growing. The aggregated indicator for this stage of the entrepreneurial pipeline will be the arithmetic mean of the three perceptions, measured as percentages.

Potential entrepreneurs: The second stage in the entrepreneurial pipeline determines the percentage of the population that has the potential to become an entrepreneur in the future. Potential entrepreneurs are those who perceive opportunities for starting a business in the area where they live; or perceive that they have the necessary skills and abilities to create and manage a new business; or would not allow the fear of failure to prevent them from starting a business. There are two ways to obtain an aggregate indicator: the first one is to get a simple arithmetic average of the overall three percentages, and the second one is to obtain from the microdata the percentage of people that consider they have the three attributes simultaneously. For the pipeline concept the first approach was used because it easier to obtain the necessary data for all the countries, as well as providing a broader interpretation of the concept.

Intentional entrepreneurs: The third stage in the entrepreneurial pipeline is when the potential entrepreneurs express their intention of starting a new business, alone or with others, within the next three years.

Nascent entrepreneurs: The fourth stage in the entrepreneurial pipeline includes individuals who have started to undertake specific steps to set up a new business, but have not yet paid salaries, wages or any other remuneration to employees and/or owners for more than three months.

New entrepreneurs: The fifth stage in the entrepreneurial pipeline includes entrepreneurs who have been the owner and the manager of a business that has paid salaries, wages or any other remuneration to employees and/or owners for more than three months, but for less than 42 months.

Established entrepreneurs: The sixth and final stage in the entrepreneurial pipeline includes the owners and managers of mature businesses, in operation for more than 42 months.

3.2 ENTREPRENEURIAL ACTIVITY IN THE LAC REGION – KEY FINDINGS

Data tables on the indicators used for the analysis in this chapter, arranged by geographical region, are included in Appendix 1.

3.2.1 Socio-cultural acceptance

Figure 3.3 shows the aggregate results for the first stage of the entrepreneurial pipeline, namely socio-cultural attitudes towards entrepreneurship. It is interesting to note that from a global perspective, societal attitudes are generally fairly positive towards entrepreneurship – the average score for this indicator, across geographical regions as well as phases of economic development, falls into a narrow range of 60 to 70%. On average, about two-thirds of people in the LAC region report positive social attitudes towards entrepreneurship – below the scores for Africa and Asia and Oceania, but in line with the average for all efficiency-driven economies.

At the individual country level, Guatemala (79%), Brazil (76%), Colombia (71%) and Peru (70%) report the highest proportion of the adult population with a positive socio-cultural perception about entrepreneurship. Puerto Rico (44%) and Mexico (47%) report the lowest socio-cultural acceptance. What is of particular concern is that for this indicator, Puerto Rico has the lowest and Mexico the third lowest score of all the countries who participated in the GEM 2015 survey.

Entrepreneurial activity does not take place in a vacuum and although not a direct step in the entrepreneurial process, societal attitudes play an important part in creating an entrepreneurial culture. In order to increase the positive social acceptance of entrepreneurial activities among different countries, communities and special groups, it is imperative to promote entrepreneurship

through educational programs at all levels of education, as well as to use the communications media to highlight positive entrepreneurial stories and role models and disseminate information about entrepreneurship.

3.2.2 Potential entrepreneurs

Figure 3.4 shows the aggregate scores for the second stage of the entrepreneurial pipeline, namely potential entrepreneurs. These are adults that see opportunities for starting a business in the area where they live; or perceive that they have the necessary skills and abilities to create and manage a new business; or would not allow the fear of failure to prevent them from starting a business.

From a regional perspective, the Latin America and Caribbean countries report encouraging levels of potential entrepreneurs at 59%. Only Africa and the factor-driven economies (both at 62%) scored marginally higher in terms of this indicator. Up to this second stage, the LAC region is retaining a fairly high percentage of the population in its entrepreneurial pipeline, with a leakage of only 5% between the regional score for socio-cultural acceptance (64%) and that for potential entrepreneurs (59%).

Figure 3.3: Socio-cultural attitudes towards entrepreneurship in LAC countries, with global comparisons, GEM 2015

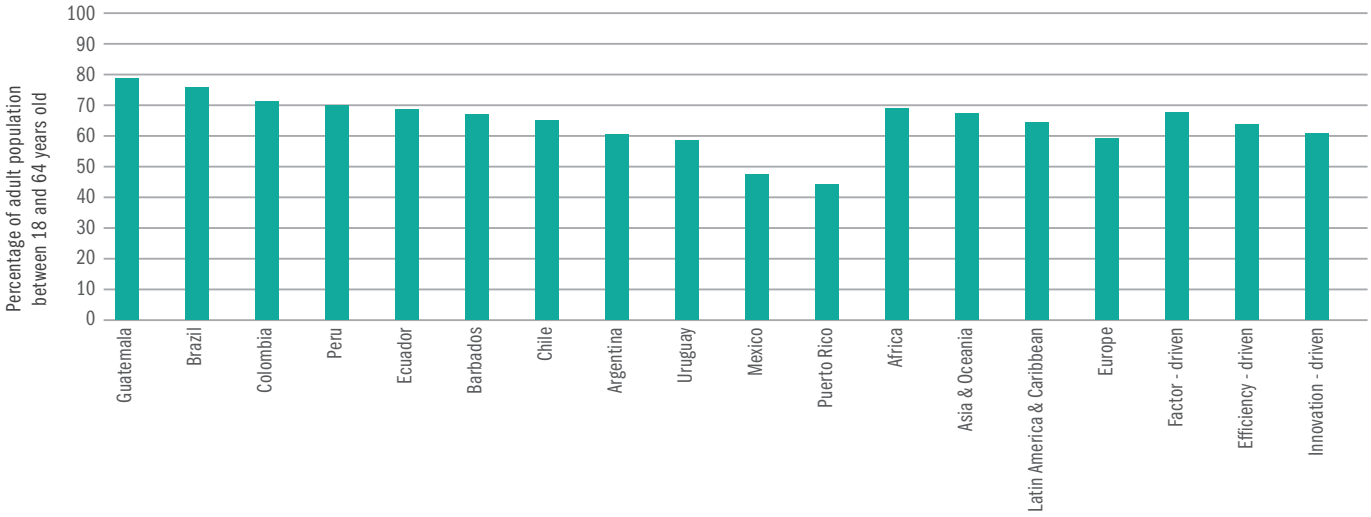
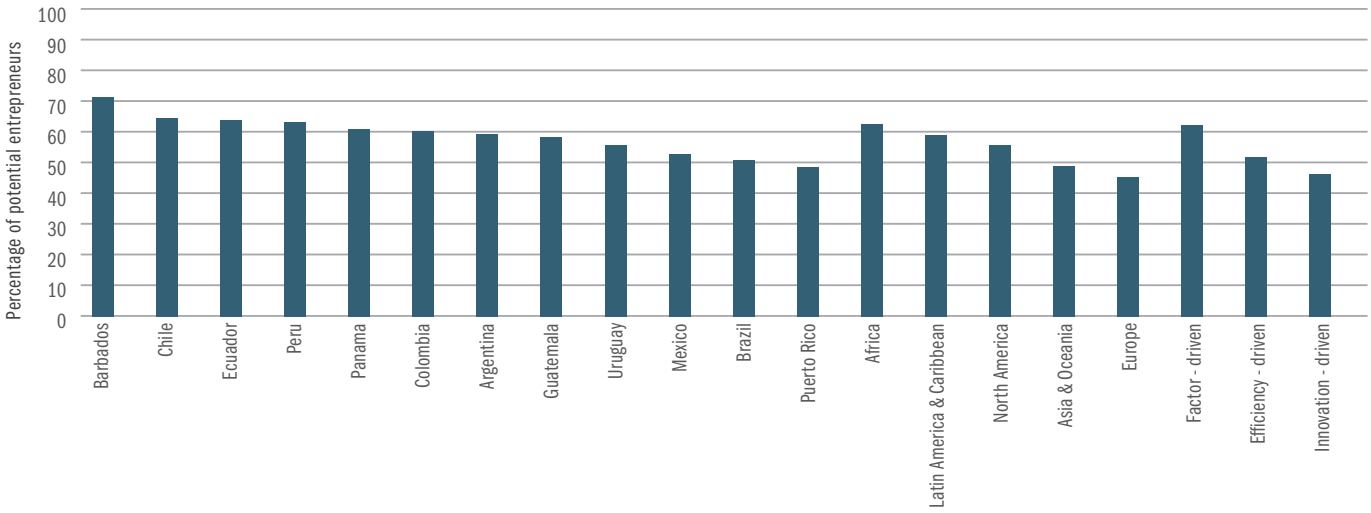


Figure 3.4: Percentage of potential entrepreneurs in LAC countries, with global comparisons, GEM 2015



At the individual country level, the LAC shows divergent results. Barbados (71%), Chile (64%), Ecuador (64%), Peru (63%), and Panama (61%) report the highest proportion of adults that could be included in the potential entrepreneur category. Mexico (53%), Brazil (51%) and Puerto Rico (48%) are the only countries that are below the 55% level. This is not surprising in the case of Puerto Rico and Mexico, given these countries' low scores for socio-cultural acceptance. Brazil's low percentage of potential entrepreneurs is cause for concern, though, given Brazilians' strongly positive social attitudes towards entrepreneurship (at 76%, the second highest in the region).

3.2.3 Intentional entrepreneurs

Potential entrepreneurs see good opportunities for starting a business and believe that they have the necessary skills, knowledge and experience to start a business. However, perceiving a good opportunity and having the skills to pursue it will not necessarily lead to the intent to start a business. Individuals will assess the opportunity costs, and risks and rewards, of starting a business versus other employment preferences and options, if these are available. In addition, the environment in which potential, intentional and active entrepreneurs exist needs to be sufficiently enabling and supportive.

Figure 3.5 summarizes the findings for the third stage of the entrepreneurial pipeline, namely intentional entrepreneurs. Entrepreneurial intention has been an important focus of entrepreneurial research, starting with Ajzen in 1987, and the consensus is that a strong association exists between entrepreneurial intention and actual entrepreneurial behaviour. Having low levels of entrepreneurial intentions, therefore, makes it difficult to develop a significant entrepreneurial population (Varela et al., 2009).

The percentage of intentional entrepreneurs in the LAC region is lower than for Africa and the factor-driven economies, but above all the other geographical and economic groups. However, the leakage of 26% between potential entrepreneurs (59%) and intentional entrepreneurs (33%) in the region means that there are many individuals quitting the entrepreneurial pipeline, even before any basic action is taken to become an entrepreneur.

From an individual country perspective, the LAC countries again report widely divergent results. Chile and Colombia report scores above 50%, among the five the highest in the world, whereas Mexico, Panama and Puerto Rico are below 20%. The low levels of entrepreneurial intention in Mexico (19%), Panama (17%) and Puerto Rico (15%) necessitate an urgent revision of their entrepreneurial national policies, given that more than 80% of their adult population is not even considering an entrepreneurial career as an option at all.

Figure 3.5: Percentage of intentional entrepreneurs in LAC countries, with global comparisons, GEM 2015

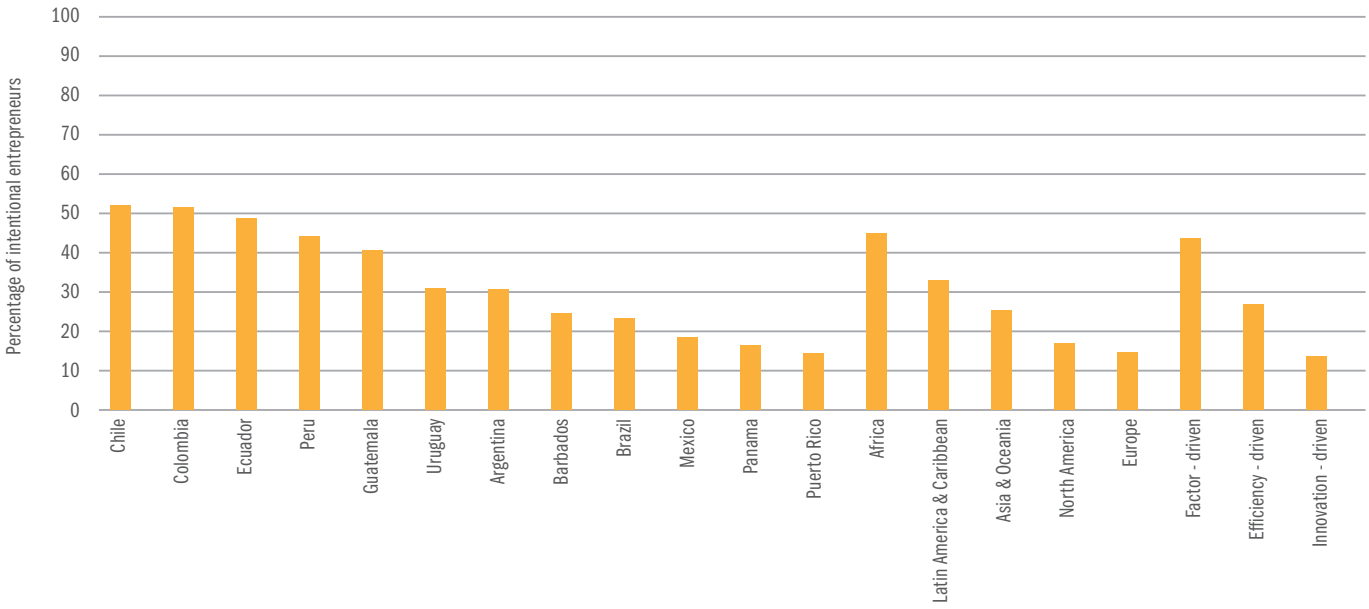
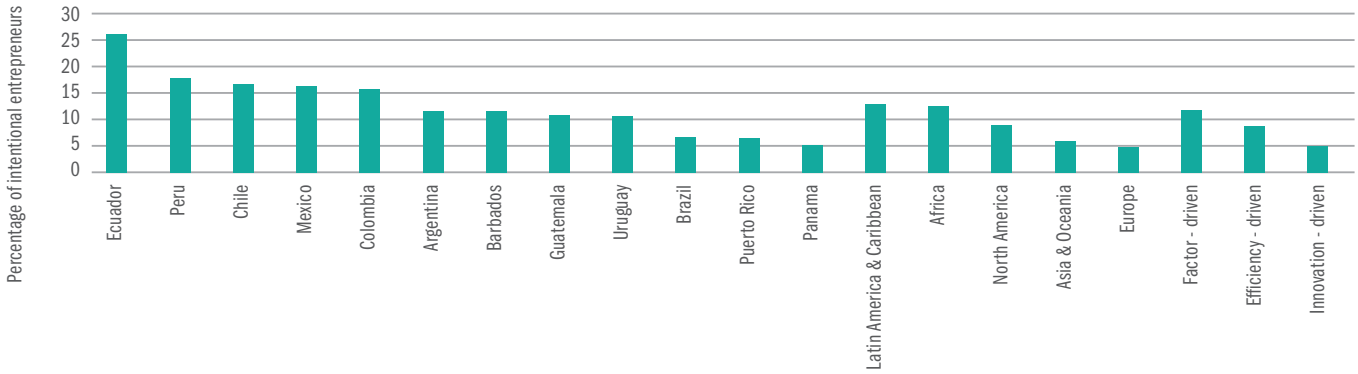


Figure 3.6: Percentage of nascent entrepreneurs in LAC countries, with global comparisons, GEM 2015



3.2.4 Early-stage entrepreneurial activity

Even when individuals have favorable perceptions of entrepreneurship and exhibit entrepreneurial intentions, it is by no means certain that this will be translated into starting businesses. It is useful for policymakers to determine the factors that contribute to the fall-off between intentional and active entrepreneurs, as this has a strong influence on the next stage of the entrepreneurial pipeline – actually starting a business. **Figure 3.6** indicates the percentage of the adult population that could be considered nascent entrepreneurs – those in the fourth stage of the entrepreneurial pipeline who have taken steps to start a new business, but have not yet paid salaries or wages for more than three months.

An encouraging finding is that the LAC region has a higher percentage of nascent entrepreneurs (13%) than all the other geographic or economic groups. However, there is still a marked fall-off between intentional and active entrepreneurs. The region has positive societal attitudes towards entrepreneurship, which translates into a healthy pool of potential and intentional entrepreneurs. The proportion of nascent entrepreneurs, though, is 60% lower than the number with entrepreneurial intentions.

Ecuador, Peru, Chile, Mexico and Colombia had more than 15 % of their adult population in this stage of the entrepreneurial pipeline. The Mexican situation is interesting. With respect to the other countries in the region, Mexico reports a low level of intentional entrepreneurs; however, this entrepreneurial intention translates strongly into actual entrepreneurial activity. Colombia and Chile, on the other hand, show a considerable fall-off from about 50% intentional entrepreneurs to only 15% nascent entrepreneurs.

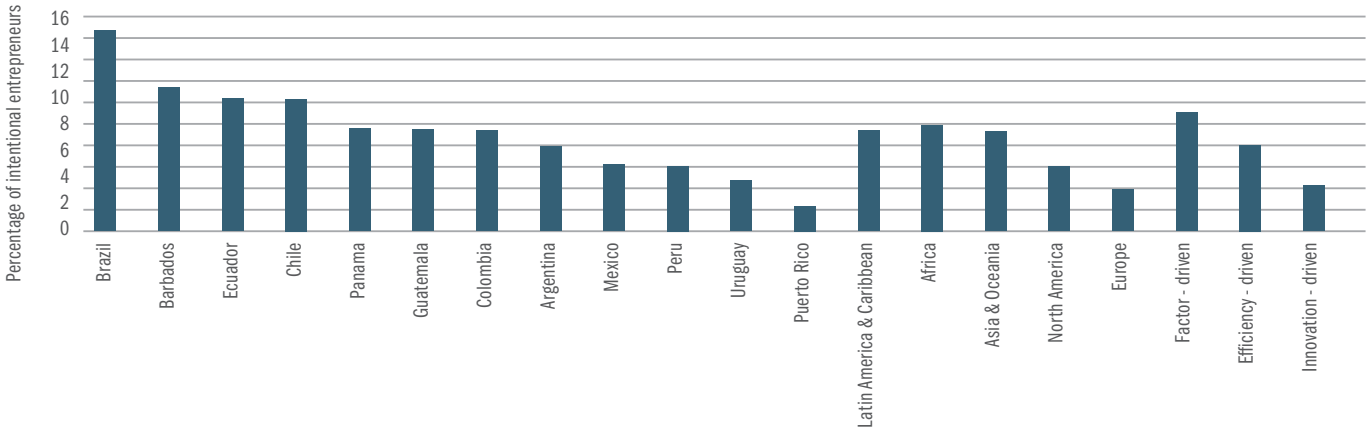
The low nascent entrepreneurship figures for Brazil (7%), Puerto Rico (7%) and Panama (5%) are signs of potential problems in the entrepreneurial ecosystem. In Panama, low entrepreneurial drive could be explained by the current good economic situation and the significant job opportunities that are opening up for the adult population, but this is not the case for Brazil or for Puerto Rico, which are facing challenging economic conditions.

Figure 3.7 indicates the percentage of the adult population that is in the fifth stage of the entrepreneurial pipeline, namely new entrepreneurs (those who are running new businesses that have been in operation for between three months and 42 months).

In terms of this indicator, the LAC region is, at 7.5%, similar to Asia and Oceania and second only to Africa. Brazil is the leader of this category in Latin America and the Caribbean, with 15% of its population in this stage of the pipeline. Brazil's disappointingly low nascent entrepreneurship rate is thus offset by a new business rate, which is almost double the regional average – an encouraging finding. Barbados, Ecuador and Chile are solid at around the 10% level, but Mexico, Peru, Uruguay and Puerto Rico are all below 6%.

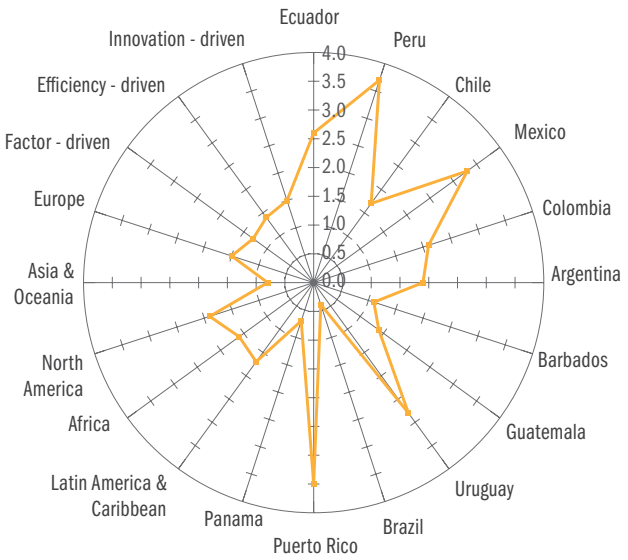
In order to better analyze the fourth and the fifth stages of the entrepreneurial pipeline, it is useful to calculate the ratio of nascent to new entrepreneurs. **Figure 3.8** presents these ratios, which indicate how many nascent businesses are required to have one new business, for all the Latin American and Caribbean countries, as well as the geographical and economic development groups. The LAC region reports a lower ratio than North America, but higher than the other geographical and economic groups, which indicates that there are deficiencies within the support systems for start-up entrepreneurs in the region.

Figure 3.7: Percentage of new business owners in LAC countries, with global comparisons, GEM 2015



Brazil, Panama and Asia and Oceania present anomalous behavior, in that the percentage of nascent entrepreneurs is lower than the percentage of new entrepreneurs. For this reason, the ratio is lower than one. This situation may reflect the effect of a previous trend, where many enterprises were in the nascent stage and many of them passed to the new stage, while in the actual economic moment, few individuals are developing new entrepreneurial initiatives. Another possible explanation could be the effect of differences in times between the two stages (time lag situation).

Figure 3.8: Ratio of nascent to new entrepreneurs in LAC countries, with global comparisons, GEM 2015



In the majority of the LAC countries, the percentage of nascent entrepreneurs is higher than the percentage of new entrepreneurs. The ratio (defined as the number of nascent entrepreneurs for each new entrepreneur) is quite high in Peru (3.7), Mexico (3.3) and Puerto Rico (3.5).

The poor sustainability of start-ups in the LAC region therefore highlights the need for policy interventions aimed at supporting and mentoring entrepreneurs through the difficult process of firm birth. Questions also need to be raised about the quality of early-stage entrepreneurship in the region, and studies should be done to define the competencies and skills that are lacking in the LAC nascent entrepreneurs.

Figure 3.9 shows the traditional TEA rates (total early-stage entrepreneurial activity). This indicator measures individuals who are participating in either of the two initial processes of the entrepreneurial process: nascent as well as new entrepreneurs. The LAC region shows a good level of early-stage entrepreneurial activity, on a par with Africa and the factor-driven economies and higher than the other geographical and economic groups. A fifth of the adult population in the LAC region is engaged in early-stage entrepreneurial activity. However, as noted earlier, the majority of this activity is in the nascent rather than in the new business phase.

From an individual country perspective, the LAC countries report widely divergent results. Ecuador (33.6%) has the highest TEA rate in the region and the second highest worldwide. Chile (25.9%), Colombia (22.7%), Peru (22.2%), Barbados (21.1%), México (21%) and Brazil (21%) are all above the 20% figure, with good rankings worldwide (among the top 12). Panama, Uruguay and Puerto Rico are below the 15% level.

Figure 3.9: Total early-stage entrepreneurial activity (TEA) in LAC countries, with global comparisons, GEM 2015

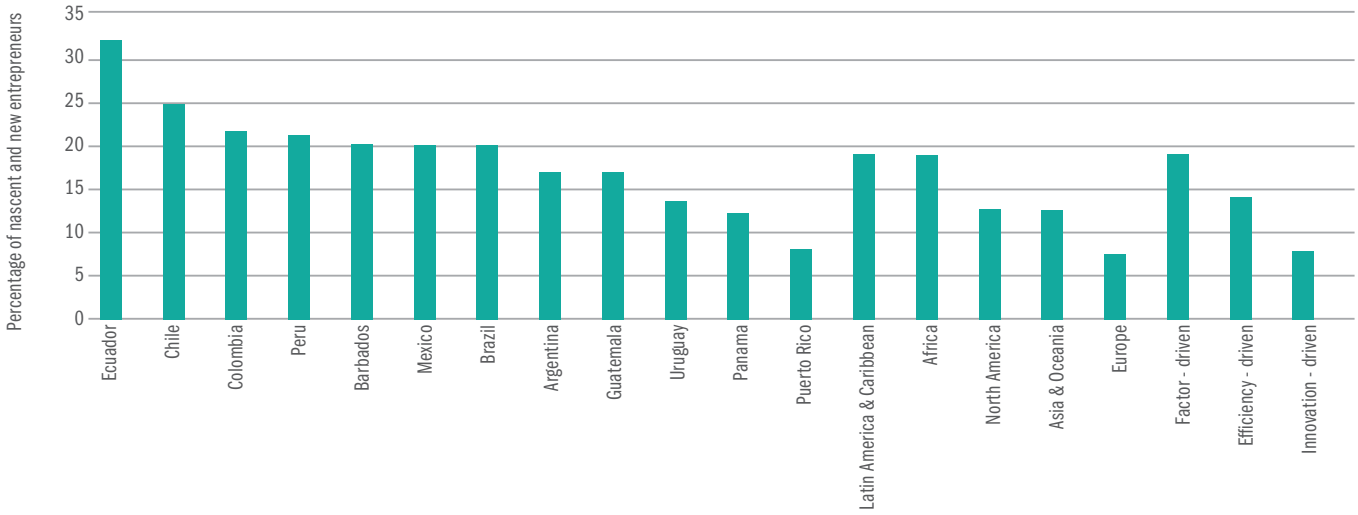
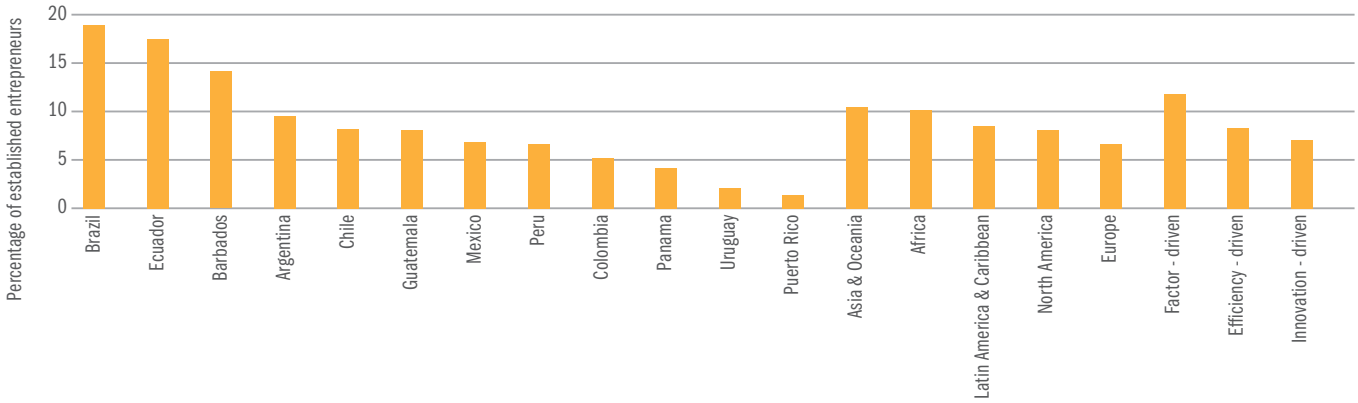


Figure 3.10: Percentage of established entrepreneurs in LAC countries, with global comparisons, GEM 2015



3.2.5 Established entrepreneurs

Figure 3.10 shows the percentage of the adult population that could be included in the established entrepreneur category (owners/managers of businesses that have been in operation for more than 42 months). Information on the level of established businesses is important as it provides some indication of the sustainability of entrepreneurship in an economy. These businesses have moved beyond the nascent and new business phases, and are able to contribute to a country's economy through the on-going introduction of new products and processes and a more stable base of employment.

The established business rate in the LAC region is lower than for Africa and Asia and Oceania, but on a par with North America and the overall rate for efficiency-driven economies. Brazil (18%) reports an established business rate more than double the regional average, as well as one of the highest rates worldwide. Ecuador and Barbados are above the 14% level, but all other Latin American countries are below the 10% level. Colombia, Panama, Uruguay and Puerto Rico present very low level of established entrepreneurs. The Colombian case is quite surprising, as in many of the previous stage of the entrepreneurial pipeline the Colombian scores were encouragingly high.

3.2.6 Entrepreneurial pipelines

Using the previous measurements for the different stages of the entrepreneurial process, the entrepreneurial pipeline for each of the Latin American and Caribbean countries can be developed (**Figure 3.11**) as well as for the LAC region as a whole (**Figure 3.12**).

The general trend among the LAC countries is a small drop between the first two stages of the entrepreneurial pipeline, i.e. from socio-cultural acceptance to potential entrepreneur. Barbados, Mexico and Puerto Rico, however, show different behavior in that these countries have potential entrepreneurship rates that exceed their socio-cultural acceptance of entrepreneurship.

From potential to intentional entrepreneurs all the countries drop, in many cases by a significant number of percentage points. It is important to observe that the differences between the countries with respect to intentional entrepreneurship rates are wider than for potential entrepreneurship rates. The role of the educational system and the generation of a positive perception about the role of entrepreneurs and enterprises in countries' development are crucial elements that must be addressed in order to avoid this drop.

Between intentional and nascent entrepreneurs, the drop in most of the countries is considerable (more than 20 percentage points). Differences between the countries are influenced by the extent to which support systems are in place to facilitate the initial steps of the entrepreneur: developing business ideas, evaluating ideas, developing and evaluating business opportunities, developing an entrepreneurial career plan, learning about the entrepreneurial environment, and learning about business, among others.

With the exception of Brazil and Panama, most of the countries experience a drop between nascent and new entrepreneurs. Improvements in the support system – including financing, coaching, marketing and sales, legal issues and managerial issues, among others – are elements that are critical in order to achieve a higher conversion rate.

Five countries (Brazil, Mexico, Panama, Ecuador and Argentina) show an increase in the percentage of established entrepreneurs with respect to the percentage of new entrepreneurs, marking a different trend from the previous stage. The fact that in the new business stage there are only

Figure 3.11: Entrepreneurial pipelines for the Latin American & Caribbean countries, GEM 2015

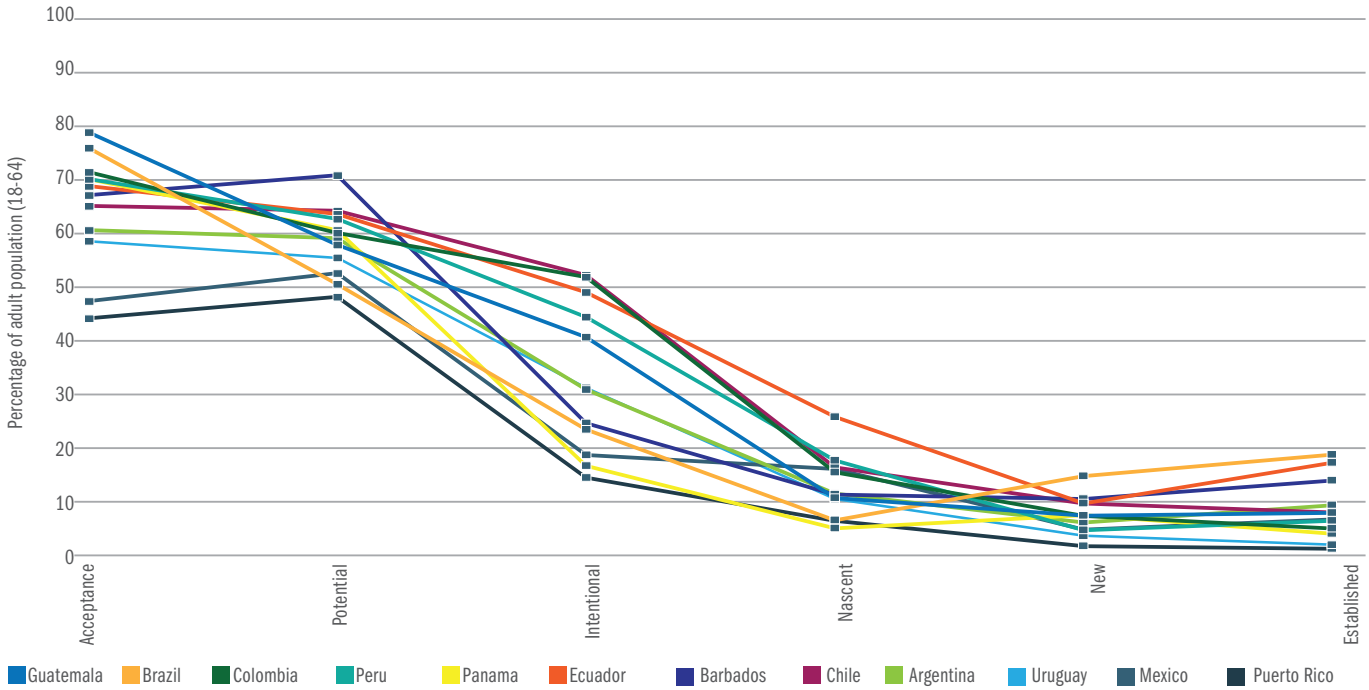
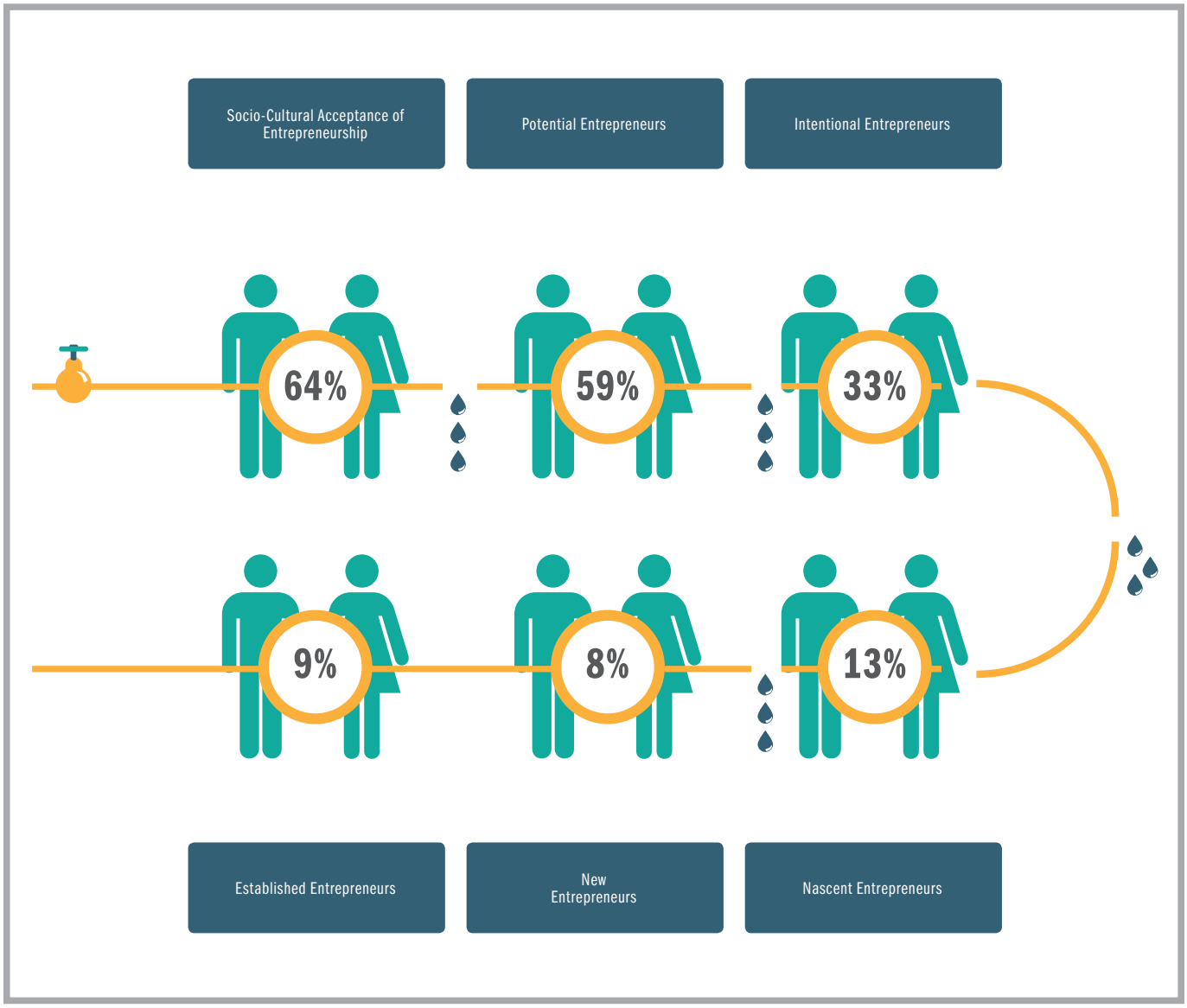


Figure 3.12: Entrepreneurial pipeline for the LAC region, GEM 2015



entrepreneurs who have been paying salaries for less than 3.5 years and in the established stage there are entrepreneurs with long entrepreneurial lives, explains this increase. The situation in the other countries is quite different because the percentage of established entrepreneurs is equal to or less than the percentage of new entrepreneurs. This indicates that the final tank, where the pipeline deposits its product, is not growing, which means that the difference between the new entrepreneurs that are able to get to this stage and the established entrepreneurs who decide to end their entrepreneurial life is negative. This situation is not good at all for the economic system, because if this trend continues, the end result will be a very small number of entrepreneurs and enterprises in the established category. Support systems that focus on promoting business sustainability and growth are fundamental to avoiding this situation.

Figure 3.13: Entrepreneurial pipelines by geographic region, GEM 2015

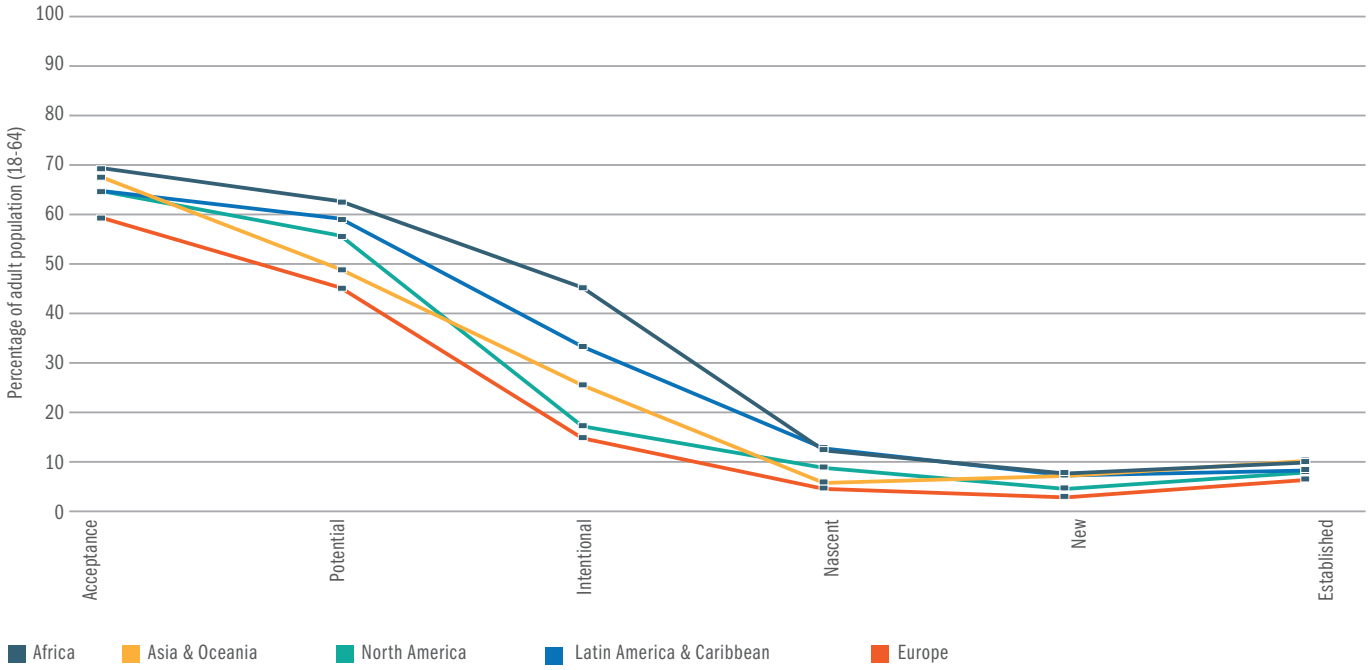


Figure 3.14: Entrepreneurial pipelines, by phase of economic development, GEM 2015

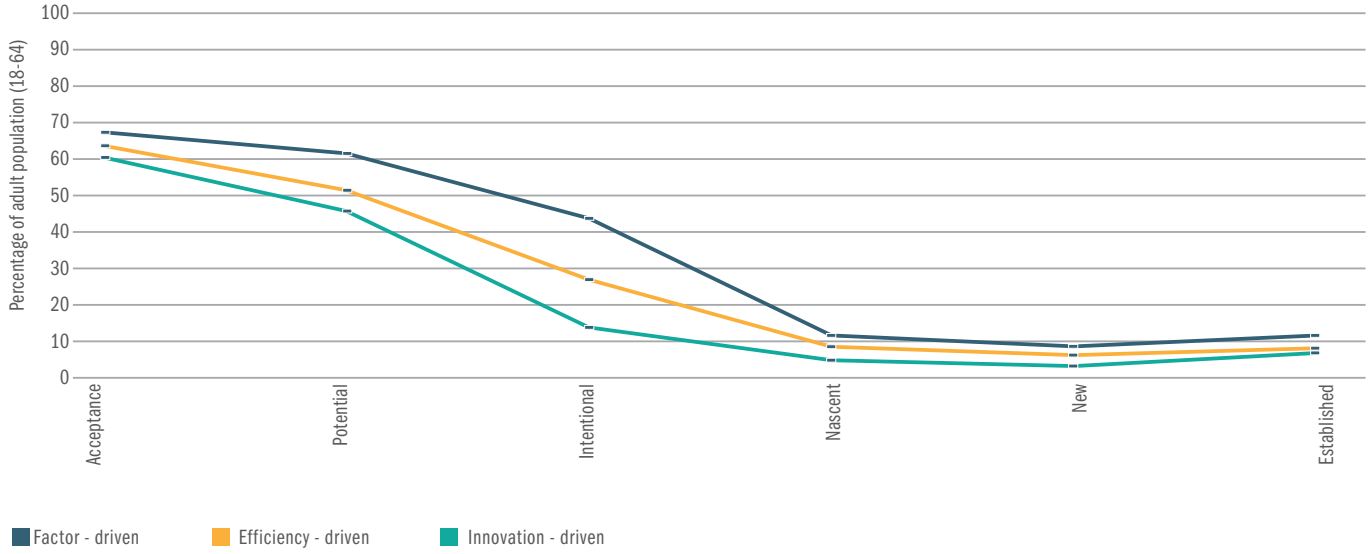


Figure 3.13 shows the entrepreneurial pipelines for the different geographical regions. The pipelines for Africa and the LAC region parallel one another to a great extent, with the only major discrepancy being in the transition between potential and intentional entrepreneurs.

For all the regions, the major leaks, in terms of absolute values, are between potential and intentional and from intentional to nascent entrepreneurs. If relative values are considered, the leak from nascent to new entrepreneurs could also be seen as fairly important. The biggest discrepancies between the regions are apparent during the first three stages, with the differences ironing out during the final stages.

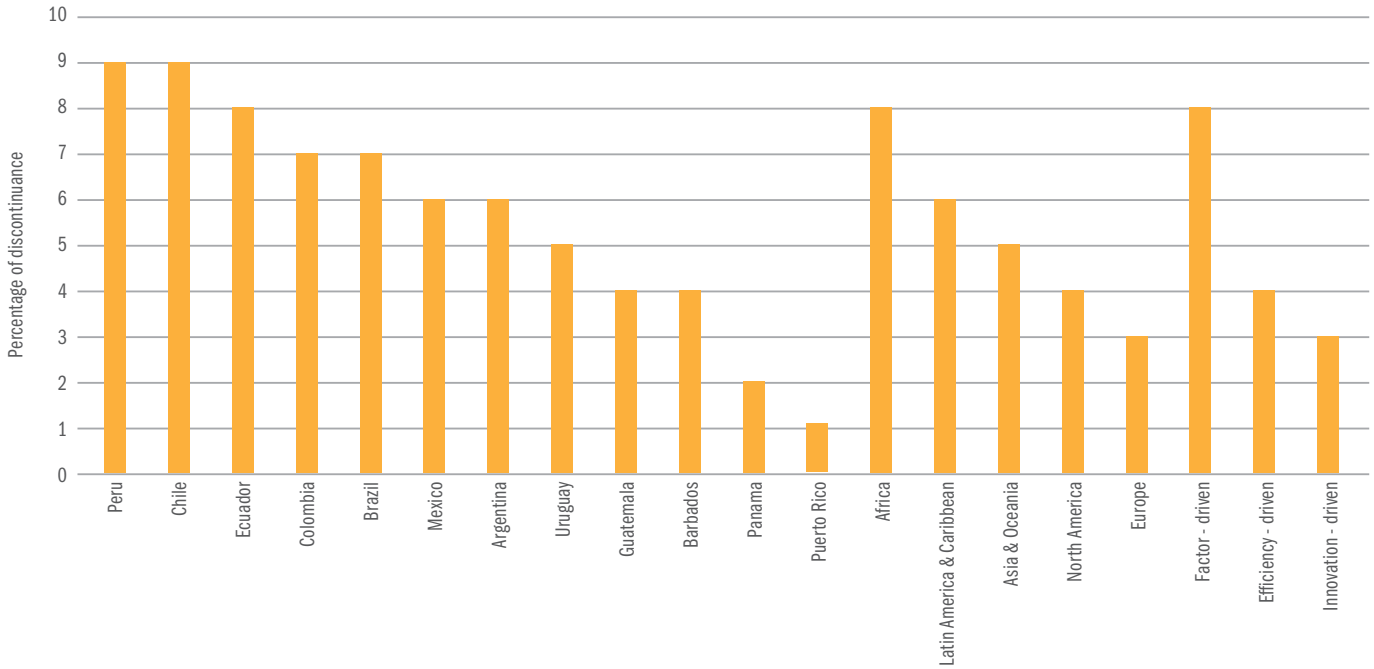
Figure 3.14 shows the entrepreneurial pipelines for each one of the three phases of economic development: factor-, efficiency- and innovation-driven economies. The leaks are between the same stages that were identified in the Latin American and Caribbean countries: from potential to intentional and from intentional to nascent in absolute percentage values. It is interesting to observe that the innovation-driven economies show the lowest percentages for all the stages, while the factor-driven economies show the highest values for all the stages.

3.2.7 Business discontinuance

Figure 3.15 shows the business discontinuance rates, defined as the percentage of adults who for any reason (personal, sale, financial, market, health, business failure, death, etc.) in the last 12 months decided to exit one or more entrepreneurial activities in which he/she was involved. Information on the rate of business discontinuance is another potential indicator of the sustainability of entrepreneurship in an economy. Africa and the factor-driven economies show the highest discontinuance rates. The LAC region shows the second highest discontinuance rate, above all the other geographical and economic groupings. The region has, however, a positive ratio of TEA to business discontinuance – for every person exiting a business in 2015, three were engaged in early-stage entrepreneurial activity. At the individual country level, Peru, Chile and Ecuador report the highest rate of business discontinuance (8 %), while Puerto Rico and Panama report the lowest (below 3%).

Unfortunately, the GEM data does not allow one to identify where the discontinuity occurred, in terms of the stages defined in the entrepreneurial pipeline. More research is needed in this regard.

Figure 3.15: Percentage of business discontinuance in LAC countries, with global comparisons, GEM 2015



ENTREPRENEURS' STORIES

ILE MIRANDA – ECUADOR

Ile Miranda, an Ecuadorian shoe designer, is now a recognized name in the fashion industry in the region. She takes her designs to multiple fashion events in Ecuador, Mexico, Panama, Peru and the Miss Universe Pageant, among others. She studied interior design at Catholic University in Guayaquil until 2000. She compensated for a lack of management education through short courses, friends' advice and mostly intuition.

"I believe in the importance of having a vision for the future, while aligning all your actions, and ensuring you have a support team," she says. "At the beginning I worked alone; I thought I could do everything and conquer the world. However, it was frustrating facing several problems you cannot solve by yourself. Your health is affected, your family relationships become difficult, and your life is out of balance.

By 2000, she decided to invest US$ 3 000 from her savings to follow her dream. Nobody was prepared to finance an unknown young woman at that time. Her father confirmed her family support by lending her another US$ 1 500. Initially she outsourced manufacturing to Peru, before she learned the necessary techniques to produce locally.

At the beginning, her growth was very slow; she had to sell one pair of shoes to make the next two and so on. By 2003, the market started to recognize Ile's brand. She got her first credit of US$ 6 000 and opened her first store at Aventura Plaza Shopping Center. Some investors offered to partner with her to develop the brand, but Ile was not willing to sacrifice equity at that time. Ile developed two lines: a premium brand with her own name, and a retail brand "*Ella me quiso*".

Ten years later, Ile opened a store in one of the high-end shopping malls in Guayaquil, San Marino. The rent went up from US$ 200 to US$ 2 000 but she expected to grow sales from US$ 80 000 to US$ 450 000. By the end of the year, she had generated US$ 650 000 in sales, but no profits. Ile was also selling in the US, Netherlands, and Germany. Locally she was supplying to one of the main department stores, DePrati, who was placing bigger purchase orders every time. She then changed the business structure to satisfy the retail business. To sell volume, Ile had to stock materials, purchase new machinery, and hire more labor. She could cover her costs until 2012, when the government introduced imports restrictions measures to favor the domestic industry. Most of the artisans left Ile's company to start their own businesses.

"We lost staff, couldn't fulfill orders, and the company was in debt. Bankruptcy was close in 2012," she notes.

Ile restructured the company, closing two stores in Quito and terminating international distribution and DePrati contracts. She kept only two stores in Guayaquil: one in San Marino with her premium brand, and one in Rio Centro Ceibos with the *pret a porter* one. Sales growth soon picked up, along with her profit margin.

The company now has four partners and 22 employees: 50% in production, 40% administrative, and 10% sales. She also outsources production to five local factories. Women represent 20% of staff in the production area.

Ile is preparing for her return to the international markets, training her own technicians for the shoe industry in collaboration with the Barrios de Paz Foundation. This NGO works in the poorest neighborhoods in Guayaquil to prevent violence among gangs by training young people and helping them to enter the labor market.

"As women, we have to achieve our goals on our own terms," Ile concludes. "We do not have imitate men to be successful."

JUAN RAVECCA, CARLOS RAVECCA AND NICOLAS TORRES – URUGUAY

Kinko is a network of convenience stores founded in 2013 by Juan Ravecca (Faculty of Law, University of Montevideo, 2006) and Nicolás Torres (Faculty of Business Administration and Economics, University of Montevideo, 2010).

The original idea came from Juan Ravecca, who in 2012 was living in Chile, where he was working in corporate finance. The idea came from analyzing a convenience store close to where he then lived. That store had many advantages compared to the traditional store that was typical in Uruguay: longer opening hours, modern, tidy and with a greater variety of products. But also had advantages over supermarkets: proximity, personalized service and speed.

In January 2013, Juan quit his job. In April he returned to Montevideo with his wife and little daughter. In August, along with his friend Nicolas Torres, he opened the first Kinko store. Then his brother, Carlos Ravecca, joined them. They quickly formed a directory with people with extensive experience in the sector. Their stores have bright colours, a schedule of 8 am to midnight, a delivery service that doesn't depend on the value of the purchase, a wide variety of products (including bread, dairy products, cold beverages, snacks, fruit, packaged quick meals, toys and even a small winery) and quick payment.

Kinko already has 15 stores in Montevideo and about 200 employees, and expect to add 30 new sale points by 2020. The success of the business model has led large supermarket chains to open their own stores of this kind. Although the format is similar, Kinko's owners believe that their customers will remain loyal because of their closeness to their stores. "There is room for everybody," says Juan Ravecca.

JUAN IGNACIO OJEDA – CHILE

Juan Ignacio Ojeda is an engineering student at Universidad Técnica Federico Santa Maria in Viña del Mar, Chile. He is the executive director and co-founder of VaCuCh, a company focused on creating innovative and efficient products and services through the development of technological solutions related to the antibacterial properties of copper and its benefits in the food industry.

Juan Ignacio´s family raises cattle for the dairy business in the south of Chile. In 2013, 10 cows died because of the presence of bacterial agents in the water containers, which became the trigger event that led to the creation of VaCuCh. "While I was at university, I started to feel the need to work in my own business," says Juan. "I started searching for opportunities everywhere and making decisions in a more analytical way." One night, while talking to his friend Nicolás about the family business tragedy, the idea of creating water containers impregnated with bactericidal copper particles that clean the water in the container was born.

Today one of their main products is Pezanbac, an antibacterial liner whose main function is decreasing bacterial colonies in the production processes of the dairy industry. This technology has helped to save the dairy industry more than MMUDD$ 30 000, and is also being used to minimize losses in other production processes in agro-industry.

The biggest obstacle Juan Ignacio faces as a young entrepreneur is credibility. "You have to be proving constantly to whoever is in front of you that you have a 100% personal commitment to the business," he says. He also believes that young entrepreneurs often fail because they are not able to make the right decisions, a situation he thinks is related to the low levels of education in innovation and entrepreneurship in Chile.

Juan Ignacio acknowledges that the Chilean government programs and policies are focused on enhancing youth entrepreneurship, in order to lower the average start-up age. "The support from the government exists," he notes. "We just have to search for it."

CHAPTER 4

CHARACTERISTICS AND MOTIVATION OF EARLY-STAGE ENTREPRENEURS IN THE LAC REGION

GEM's focus on individual-level participation enables this research to reveal a range of demographic and other characteristics about entrepreneurs. The research also makes possible an assessment of the level of inclusiveness in an economy – in other words, the extent to which various groups (for example age, gender or education level) engage in entrepreneurial activity. This information can assist policymakers in targeting effective interventions aimed at increasing participation as well as productivity in the economy.

4.1 MOTIVATION FOR STARTING A BUSINESS

The relative prevalence of opportunity-motivated versus necessity-motivated entrepreneurial activity provides useful insights into the quality of early-stage entrepreneurial activity in a given country. The motivation that drives entrepreneurs to start businesses is as important as the level of entrepreneurial activity in countries. It is much more desirable that they are driven by opportunity than by necessity, since opportunity-driven entrepreneurs usually flourish in a more enabling environment characterized by favorable entrepreneurial framework conditions.

Necessity based early-stage entrepreneurial activity: This is defined as the percentage of those involved in early-stage entrepreneurial activity that claim to be driven by necessity (having no better choice for work) as opposed to opportunity. This is also described as survivalist-driven motivation.

Opportunity based early-stage entrepreneurial activity: This is the percentage of those involved in early-stage entrepreneurial activity driven purely or partly by opportunity, as opposed to finding no other option for work. This includes taking advantage of a business opportunity or having a job but seeking a better opportunity.

According to the *GEM Global Report 2015, most entrepreneurs around the world are opportunity-motivated. Even in the factor- and efficiency-driven economies, 69% of entrepreneurs stated they chose to pursue an opportunity as a basis for their entrepreneurial motivations, rather than starting out of necessity, because they had no better options for work. The innovation-driven economies show a higher proportion of opportunity-motivated entrepreneurs, at 78%. At a regional level, necessity-driven entrepreneurship was highest in Africa and Latin America and the Caribbean, with 30% of entrepreneurs, on average, citing this motive (Kelley et al, 2016).*

Table 4.1 shows the high levels of necessity-driven entrepreneurial activity among the LAC countries – in nine of the 12 countries, the proportion of necessity-driven entrepreneurs is over 25%. Guatemala, Panama and Brazil have the highest proportion of necessity-driven entrepreneurs. In these three countries, entrepreneurs are only marginally more likely to be motivated by opportunity rather than necessity. The LAC region's poor economic growth over the past few years is clearly starting to take its toll. High competition for low levels of job opportunities in the formal sector means that people, especially in poorer communities, will be forced into necessity-entrepreneurship because of lack of other options for sustainable livelihoods. Given that GEM has shown that businesses

Table 4.1 Reason for starting a business in LAC countries, GEM 2015

Countries	TEA[1]	Motivation			Opportunity (as % of TEA)	Necessity (as % of TEA)
		Opportunity-driven[2]	Necessity-driven [3]	Opportunity/necessity ratio 4		
Argentina	17,7	12,0	5,3	2,3	67,4	29,8
Barbados	21,1	17,0	3,2	5,3	80,8	15,2
Brazil	21,0	11,9	9,0	1,3	56,5	42,9
Chile	25,9	17,5	6,6	2,7	67,4	25,3
Colombia	22,7	14,9	7,5	2,0	65,6	33,3
Ecuador	33,6	23,1	10,3	2,3	68,8	30,5
Guatemala	17,7	9,5	8,1	1,2	53,5	45,8
Mexico	21,0	16,6	4,0	4,2	78,8	18,9
Panama	12,8	6,7	5,8	1,2	52,0	45,3
Peru	22,2	16,2	5,6	2,9	73,0	25,3
Puerto Rico	8,5	6,3	2,1	2,9	73,7	25,1
Uruguay	14,3	11,5	2,6	4,4	80,6	18,2

Source: GEM Global Report 2015

[1] Percentage of entrepreneurs in the adult population (18 to 64 years)

[2] Percentage of opportunity entrepreneurs in the adult population (18 – 64 years)

[3] Percentage of necessity entrepreneurs in the adult population (18 – 64 years)

4 Number of opportunity entrepreneurs for each necessity-motivated entrepreneur

started by opportunity-driven entrepreneurs are much more likely to survive and employ people than those started by necessity-driven entrepreneurs, these figures are discouraging in terms of maintaining social gains such as poverty alleviation in the region.

Barbados, Uruguay and Mexico have the highest rates of opportunity-driven motivation in the region – in line with the average for innovation-driven economies. This is particularly encouraging in Barbados and Mexico, with their healthy levels of TEA activity.

4.2 PROFILE OF THE LAC ENTREPRENEURS

4.2.1 Gender

Many studies maintain that women face greater difficulties in becoming entrepreneurs. These obstacles include: higher levels of domestic responsibility; lower levels of education (particularly in developing countries); lack of female role models in the business sector; fewer business-orientated networks in their communities; lack of capital and assets; lower status in society; and a culturally-induced lack of assertiveness and confidence in their ability to succeed in business. These factors may prevent women from perceiving, as well as acting on entrepreneurial opportunities.

The *2015 GEM Global Report shows that although the ratio of male to female participation in early-stage entrepreneurial activity varies considerably across the total sample of GEM countries, reflecting differences in culture and customs regarding female participation in the economy, a consistent finding is that men are more likely to be involved in entrepreneurial activity, regardless of level of economic development.* **Table 4.2** shows that Latin American and Caribbean countries follow this pattern; in 11 of the 12 countries the propensity toward entrepreneurship, measured by TEA, is higher in males than in females. An encouraging finding is that, from a regional perspective, gender parity is relatively positive. The LAC region and Asia and Oceania are the leaders in this respect – in both these regions in 2015, eight women were engaged in early-stage entrepreneurship for every 10 male entrepreneurs.

Peru is the only country in the LAC region where women report higher TEA rates than men; however, Ecuador, Brazil and Panama all show an encouraging level of gender parity in terms of early-stage entrepreneurial activity. Uruguay has the widest gender gap in terms

Table 4.2: TEA rates by gender in LAC countries, GEM 2015 (% of adult population for each gender involved in TEA)

Country	Female TEA rate (% of adult female population)	Male TEA rate (% of adult male population)	Overall TEA rate	Ratio female to male
Argentina	15.8*	19.9	17.7	0.79
Barbados	19.8	22.4	21.1	0.88
Brazil	20.3	21.7	21.0	0.94
Chile	22.1	29.7	25.9	0.74
Colombia	18.5	27.1	22.7	0.68
Ecuador	32.8	34.3	33.6	0.96
Guatemala	13.9	21.9	17.7	0.63
Mexico	19.2	23.0	21.0	0.83
Panama	12.1	13.5	12.8	0.9
Peru	22.5	21.9	22.2	1.03
Puerto Rico	7.1	10.0	8.5	0.71
Uruguay	9.1	20.1	14.3	0.45
LAC region (average)	17.8	22.1	19.9	0.8

*Read as: 15.8% of the female population in Argentina in 2105 were engaged in early-stage entrepreneurial activity.

Table 4.3: Necessity-driven entrepreneurs as % of TEA, by gender, for LAC countries, GEM 2015

Countries	Male		Female	
	TEA	% Necessity-driven	TEA	% Necessity-driven
Argentina	19.9	23.3*	15.8	37.3
Barbados	22.4	11.2	19.8	19.5
Brazil	21.7	32.0	20.3	54.2
Chile	29.7	18.8	22.1	34.0
Colombia	27.1	32.0	18.5	34.9
Ecuador	34.3	27.7	32.8	33.5
Guatemala	21.9	38.7	13.9	56.0
Mexico	23.0	15.6	19.2	22.5
Panama	13.5	44.4	12.1	46.3
Peru	21.9	20.7	22.5	29.6
Puerto Rico	10.0	23.2	7.1	27.7
Uruguay	20.1	15.8	9.1	22.9
LAC region (average)	22.1	25.,3	17.8	34.9

*Read as: 23.3% of male TEA activity in Argentina in 2015 was necessity-driven.

of early-stage entrepreneurial activity, with fewer than five women engaged in TEA for every 10 male entrepreneurs.

The highest entrepreneurship rates for both genders can be seen in Ecuador, where 32.8% of working-age women and 34.3% of men are starting or running new businesses. High rates among both genders therefore explain the high TEA rate in this country. On the other hand, the lowest TEA rates for both genders can be seen in Puerto Rico, where 7.1% of working-age women and 10% of men are starting or running new businesses. Low rates among both genders, therefore explain the low TEA rate in this country, but in this case, the rate among women has a stronger influence on the lower TEA rate.

Table 4.3 shows that, with the exception of Colombia and Panama, women in all Latin American and Caribbean countries are significantly more likely to be necessity-driven entrepreneurs. This means that comparative to men, a higher proportion of women start businesses because they need a source of income and, most probably, have no better options for work. An explanation for this is presented in the *2015 GEM Global Report*: "In many areas with low GDP per capita, women must find ways to earn extra money to supplement household income and pay for such necessities as schooling, clothes and food to feed the family. Too often, they are in charge of supporting their families without a partner."

4.2.2 Age distribution

In most Latin American and Caribbean countries the overall age pattern for entrepreneurship shows the highest participation rates among the 25 - 34 age group, followed by 35 - 44 year olds (**Table 4.4**). The first group, who are beginning their professional lives, are likely to be motivated by the scarcity of jobs in the country or because in this phase of their lives they have fewer obligations and can try different options of working and getting income. The second group, in their mid-careers, might have lost their jobs and be looking for an alternative source of income. From a more positive perspective, these individuals have had time to develop their skills and knowledge through education, as well as through work experience, building their confidence in their own abilities. A critical factor is that they may have accumulated other resources such as networks, personal savings and access to other financial resources. These factors may encourage them to follow the dream of owning their own businesses.

The third highest rates are among 45 to 55 years old for most countries, except for Barbados, Brazil and Peru. In these three countries, high rates can be seen among the youngest age cohort (18 - 24 year olds). Usually still studying, these individuals often start a business in order to help their families, as well as to generate their own income, including paying university fees. A small proportion of this age group is motivated by a perceived business opportunity. Senior entrepreneurship may be reduced by factors that include retirement or poor health. On the other hand, a lack of work options or pensions and a need for income could spur entrepreneurship among the older population, as well as enterprising seniors with experience, resources, and networks that enable them to launch viable businesses. For most of the LAC countries the oldest age group, 55 - 64 years, shows the lowest rates. Exceptions are Chile and Mexico, where this age category has higher TEA rates than the 18 - 24 year cohort.

Table 4.4: TEA rates by age group in LAC countries, GEM 2015 (% of adult population in each age category involved in TEA)

Countries	18 to 24 years	25 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	TEA
Argentina	14.6*	23.3	20.9	17.1	9.2	17.7
Barbados	21.9	27.5	24.3	19.1	9.9	21.1
Brazil	20.8	26.2	22.7	17.3	13.2	21.0
Chile	17.2	30.8	30.7	26.2	21.0	25.9
Colombia	20.3	24.0	27.5	23.2	15.5	22.7
Ecuador	27.9	38.9	35.5	35.1	25.8	33.6
Guatemala	16.4	21.0	18.1	16.3	11.9	17.7
Mexico	12.7	26.8	25.6	20.2	14.7	21.0
Panama	10.0	14.2	14.5	13.6	9.8	12.8
Peru	23.9	25.7	22.1	18.5	15.2	22.2
Puerto Rico	6.7	11.4	10.6	8.6	4.3	8.5
Uruguay	11.6	18.4	19.2	13.1	6.2	14.3
LAC region (average)	17.0	24.0	22.6	19.0	13.1	19.9

*Read as: 14.6% of 18 to 24 year olds in Argentina in 2015 were engaged in early-stage entrepreneurial activity.

4.3 ENTREPRENEURSHIP IMPACT CHARACTERISTICS

In studying the impact of entrepreneurs, GEM recognizes that while all entrepreneurs are important, they have differing impacts on their societies. Key to economic development and growth are job creation, a mix of industries and the level of innovation. This section focuses on these factors with respect to the LAC region.

4.3.1 Industry sector participation

Table 4.5 shows the distribution of early-stage entrepreneurial activity according to industry sector participation. The extractive sector is based on natural resources and includes agriculture, forestry, fishing and mining; the transforming sector involves the manufacturing of goods and is generally capital-intensive, but it may also be labor-intensive, including construction, manufacturing, transportation, communication, utilities and wholesale distribution; business services target the business customer and generally rely on greater knowledge intensity, which includes finance, insurance and real estate; and the consumer sector serves customers directly through products and services that include retail, motor vehicles, lodging and restaurants, personal services, education and recreational services.

In nine of the 12 Latin American and Caribbean countries, more than 60% of the entrepreneurs operate wholesale or retail businesses, mainly consumer oriented. According to the *2015 GEM Global Report*, these types of businesses generally require lower skill levels and present fewer barriers to entry, which at least partially explains their prevalence in economies at earlier stages of development. However, this tends to be an over-traded sector populated by low profit margin businesses. The high level of competition for limited markets can threaten the sustainability of these businesses. Another factor to bear in mind is that the consumer services sector tends to be particularly vulnerable in periods of economic slowdown. Colombia, Uruguay and Chile have the most balanced profiles in terms of industry sector participation: around half of their early-stage business activity is in the consumer services sector, with both the transforming and business services sectors showing high activity.

In Brazil, 30% of entrepreneurs started businesses in the transforming industry sector, the highest proportion of this activity among this group of countries. Three countries have more than 5%, of entrepreneurs operating in the extractive sector: Peru, Barbados and Ecuador. Only four countries report more than 18% of business services oriented entrepreneurs: Colombia, Argentina, Chile and Uruguay. Further development of the services sector – especially sophisticated, high-productivity modern services such as finance, ICT and business services – is thus important, particularly in enabling the LAC region to participate in global value chains.

Table 4.5: Sector of economic activity (% of TEA) for LAC countries, GEM 2015

Country	Extractive sector	Transforming sector	Business oriented services	Consumer oriented services	Sum
Argentina	1,5*	16.4	18.9	63.2	100.0
Barbados	6.8	20.1	10.7	62.4	100.0
Brazil	1.4	30.2	5.9	62.5	100.0
Chile	2.6	23.3	18.8	55.3	100.0
Colombia	4.9	25.9	20.7	48.5	100.0
Ecuador	5.7	12.8	5.9	75.6	100.0
Guatemala	1.9	17.3	6.9	73.9	100.0
Mexico	1.6	16.4	4.1	77.9	100.0
Panama	2.0	22.4	5.1	70.5	100.0
Peru	7.6	17.2	6.9	68.4	100.0
Puerto Rico	2.7	15.9	5.9	75.5	100.0
Uruguay	2.6	27.3	18.4	51.7	100.0

*Read as: 1.5% of early-stage entrepreneurial activity in Argentina in 2015 was in the extractive sector.

Table 4.6: Job creation expectations (% of TEA) over next five years in LAC countries, GEM 2015

Countries	Any jobs in 5 years (% TEA)	Expects 6 or more jobs in 5 years (% TEA)
Argentina	63.0*	18.8
Barbados	54.4	11.8
Brazil	43.0	6.8
Chile	78.8	33.6
Colombia	88.6	54.3
Ecuador	74.0	9.3
Guatemala	80.8	11.9
Mexico	49.7	10.1
Panama	52.0	2.0
Peru	68.9	16.0
Puerto Rico	66.9	9.8
Uruguay	64.3	25.9

*Read as: 63% of early-stage entrepreneurs in Argentina in 2015 expect to create at least one job within the next five years.

4.3.2 Job creation expectations

A key focus in the development strategies of emerging economies is to facilitate growth that is sustainable and inclusive in order to generate widespread employment and to reduce poverty. The potential of the SME sector to create job opportunities is thus a crucial factor. An interesting finding from the *2015 GEM Global Report* is that the innovation-driven economies have, on average, higher proportions of entrepreneurs with no future hiring expectations than factor and efficiency economies. This percentage is 40% for factor-driven, 39% for efficiency-driven and 45% for innovation-driven economies. According to the report, the explanation may be that sophisticated technology and communications may enable entrepreneurs in developed economies to remain small, perhaps as part of a broader value network. In the less developed economies, on the other hand, it may be easier to hire people who have fewer job alternatives.

Table 4.6 indicates the percentage of early-stage entrepreneurs in the LAC region expecting to create any jobs within the next five years. Among all Latin American and Caribbean countries, above 43% of the entrepreneurs expect to add at least one job in five years. In four countries this percentage is over 72%. In 10 of the 12 countries, more than 9% of entrepreneurs expect to add six jobs or more. In the majority of the region, however, medium to high growth expectations fall below the GEM 2015 average for all efficiency-driven economies (21%). Colombia (54.3%) and Chile (33.6%) have the highest proportion of entrepreneurs who expect to generate six jobs or more over the next five years.

Interventions that encourage and stimulate businesses in the SME sector to grow are essential if they are to contribute meaningfully to socio-economic development in the region. It is important to identify those entrepreneurs with realistic medium to high growth aspirations, and institute policies aimed specifically at supporting them in order to optimize their impact on economic growth and job creation. Research has shown that these enterprises are extremely mobile and will move from areas in which they feel their growth potential is being constrained. Small businesses and high-growth businesses have different finance requirements, with small businesses needing better access to grants, subsidies and soft loans, while policies that promote R&D loans and innovation grants, business angel finance and venture finance would be more beneficial in promoting high-growth entrepreneurs (Erkko, 2007). Alleviating regulatory burdens as well as offering targeted financial support is important in developing an environment that allows high-growth businesses to flourish.

4.3.3 Innovation

Innovation represents newness to a market and within an industry. GEM thus assesses the extent to which entrepreneurs are introducing products or services that are new to some or all customers, and that are offered by few or no competitors. According to the *2015 GEM Global Report*, average innovation levels increase with development level (21% for factor-driven, 24% for efficiency-driven and 31% for innovation-driven economies). The average for the LAC region (26.5%) is slightly higher than the average for all efficiency-driven economies, and higher than the averages for Africa, as well as Asia and Oceania.

From an individual country perspective, Argentina, Barbados, Brazil, Mexico and Peru have the lowest level of innovation (**Table 4.7**). The percentage of entrepreneurs in these countries that regarded their products or services as innovative varies from 13.4% in Barbados to 22.2% in Argentina. The highest innovation levels can be seen in Chile, where over half of entrepreneurs state that they have innovative products or services, followed by Guatemala with more than one third of entrepreneurs with this characteristic. This characteristic of Chilean entrepreneurs, together with their relatively high TEA rate and balanced industry sector profile, shows a very positive future for the Chilean economy.

Table 4.7: Innovation* levels (% of TEA) for LAC countries, GEM 2015

Countries	Innovation level
Argentina	22.2**
Barbados	13.7
Brazil	19.7
Chile	54.4
Colombia	29.7
Ecuador	27.8
Guatemala	37.1
Mexico	18.3
Panama	28.1
Peru	15.9
Puerto Rico	24.3
Uruguay	27.0
LAC region (average)	26.5

*Product is new to all or some customers AND few/no businesses offer the same product.
**Read as: 22.2% of early-stage entrepreneurs in Argentina in 2015 believe their product is new to all/some customers AND few/no businesses offer the same product.

4.4.4 Internationalization

For many entrepreneurs, internationalization is a means to access larger and more diverse markets. In economies with large and relatively affluent internal markets, there may be less incentive for early-stage entrepreneurs to reach out to international markets. The ability to sell internationally is influenced by a range of factors: for example, the ability to conduct supply and distribution activities through the Internet, particularly to the extent that this facilitates international trade. GEM regards entrepreneurs who aim to have more than 25% of their customers coming from international markets as having a strong international orientation.

International orientation is not a characteristic of most Latin American and Caribbean countries' businesses (**Table 4.8**). In nine of the 12 countries, more than 60% of entrepreneurs have no customers from external markets. In four economies – Argentina, Brazil, Guatemala and Mexico – entrepreneurs are almost totally oriented to their domestic markets. More than 85% of entrepreneurs in these countries have no customers from other countries.

Chile and Colombia display relatively reasonable levels of strong international orientation, with 13% of their entrepreneurs reporting that 25% or more of their revenue comes from international sales. This is in line with the average for the efficiency-driven economies (13%). Panama reports the highest level of internationalization among the LAC countries, with 42% of the entrepreneurs in this country having more than 25% of customers from other countries.

Table 4.8: Internationalization levels (% of TEA) for LAC countries, GEM 2015

Countries	75 to 100% of revenue from outside country	25 to 75% of revenue from outside country	1 to 25% of revenue from outside country	No revenue from outside country	Sum
Argentina	0.6*	0.6	9.2	89.6	100.0
Barbados	4.5	4.7	48.1	42.7	100.0
Brazil	0.0	0.0	7.6	92.4	100.0
Chile	2.2	11.0	27.8	59.0	100.0
Colombia	4.7	11.5	59.7	24.1	100.0
Ecuador	2.4	5.7	8.2	83.8	100.0
Guatemala	0.0	0.3	2.1	97.7	100.0
Mexico	0.8	0.6	12.9	85.6	100.0
Panama	5.0	37.2	14.9	43.0	100.0
Peru	1.8	3.9	22.2	72.1	100.0
Puerto Rico	2.3	5.7	21.6	70.4	100.0
Uruguay	6.2	7.7	20.1	66.0	100.0

*Read as: 0.6% of early-stage entrepreneurs in Argentina in 2015 reported that three-quarters or more of their revenue came from international sales.

CHAPTER 5

THE LATIN AMERICAN AND CARIBBEAN ENTREPRENEURIAL ECOSYSTEM

5.1 INTRODUCTION

Chapter 2 discussed the conceptual design of the GEM methodology, including the general GEM model with all the variables, as well as the specific tools that are used, namely the Adult Population Survey (APS) and National Expert Survey (NES). The NES focuses on the environmental features that are expected to have a significant impact on the entrepreneurial sector, captured in nine Entrepreneurial Framework Conditions (EFCs), rather than on general economic factors. **Table 5.1** describes these framework conditions and in some cases the sub-factors for each EFC.

The NES is administered to at least 36 experts in each country, to assess the EFCs for each economy. The NES is structured as follows: the questionnaire´s first blocks represent each of the nine EFCs. For each EFC there is a set of items measured on a nine-point Likert scale, from highly insufficient (1) to highly sufficient (9). Examples for the entrepreneurial finance items are: "*In my country there is sufficient equity funding available for new and growing firms*" or "*In my country there is sufficient funding available through initial public offerings (IPOs) for new and growing firms*". In the second section, using an open-question format, experts are asked to identify factors that foster and constrain entrepreneurship, and to give recommendations that would enhance the entrepreneurial ecosystem. The assessment of the favorability of the EFCs by a set of national experts therefore provides a picture of the entrepreneurial climate for each country.

Experts are professionals with substantive knowledge and experience on the fields of each EFC, gained through private practice, managerial positions, government service, NGO engagement, and entrepreneurship at the regional level.

Table 5.1: The Entrepreneurial Framework Conditions

	"Entrepreneurial Framework Conditions"	"Definition"
1	"Entrepreneurial Finance"	"The availability of financial resources—equity and debt—for small and medium enterprises (SMEs) (including grants and subsidies)."
2	"Government Policies "	"The extent to which public policies support entrepreneurship. This EFC has two components: 2a. Entrepreneurship as a relevant economic issue and 2b. Taxes or regulations are either size-neutral or encourage new and SMEs."
3	"Government Entrepreneurship Programs"	"The presence and quality of programs directly assisting SMEs at all levels of government (national, regional, municipal)."
4	"Entrepreneurship Education"	"The extent to which training in creating or managing SMEs is incorporated within the education and training system at all levels. This EFC has two components: 4a. Entrepreneurship Education at basic school (primary and secondary) and 4b. Entrepreneurship Education at post-secondary levels (higher education such as vocational, college, business schools, etc.)."
5	"R&D transfer "	"The extent to which national research and development will lead to new commercial opportunities and is available to SMEs."
6	"Commercial and Legal Infrastructure"	"The presence of property rights, commercial, accounting and other legal and assessment services and institutions that support or promote SMEs."
7	"Internal Market Dynamics and Entry Regulation"	"This EFC contains two components: 7a. Market Dynamics: the level of change in markets from year to year, and 7b. Market Openness: the extent to which new firms are free to enter existing markets."
8	"Physical Infrastructures "	"Ease of access to physical resources—communication, utilities, transportation, land or space—at a price that does not discriminate against SMEs."
9	"Cultural and Social Norms "	"The extent to which social and cultural norms encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income."

Source: GEM 2015

Entrepreneurial policies, finance, entrepreneurship education and business support are some of the main areas of expertise of the national experts. The demographic profile of the Latin American and Caribbean experts is summarized in **Table 5.2**.

Table 5.2: Demographic profile of national experts for LAC region, GEM 2015

Gender	Male	69.5%
	Female	30.5%
Age (years)		43.1
Highest education level	High school	0.9%
	College	27.3%
	Masters/PhD	70.9%
	Vocational	0.9%
Experience in areas connected to entrepreneurship (years)		12.3
Experts´best description	Business and support services provider	23.6%
	Educator, teacher, researcher	19.2%
	Entrepreneur	27.3%
	Investor, financer, banker	10.4%
	Policy maker	13.4%
	Other	6.1%

5.2 REGIONAL PERFORMANCE IN TERMS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS

Table 5.3 shows the mean scores for the experts' ratings for each component of the entrepreneurial ecosystem. Given that '9' denotes a highly positive rating while '1' denotes a strongly negative view of the EFC concerned, it is clear that from a regional perspective the average rating for each of the EFCs falls into the low level performance category. The weakest framework condition (with an average rating of 2.5) is school-level entrepreneurship education. On the other hand, the experts gave a mid-high rating (6.2) to physical infrastructure, and an average rating to entrepreneurial education at post-secondary level as well as to social and cultural norms. These three factors have shown steady improvements for all countries in the LAC region over the past five years.

The *2015 GEM Global Report* notes that ratings of the entrepreneurial environment tend to vary according to the economic development phase of a country. The entrepreneurship ecosystem is strongest overall in the innovation-driven economies, while the factor-driven economies struggle with the least favorable entrepreneurship conditions.

Even though there are differences among the countries in the LAC region in terms of stage of economic development (four are efficiency-driven, seven are in transition from efficiency to innovation, and one is innovation-driven) the data does not show major differences in terms of the Entrepreneurial Framework Conditions. Countries in the efficiency-driven stage show comparatively better ratings for post-school entrepreneurial education, physical infrastructure, and social and cultural norms; economies in transition from efficiency to innovation got better ratings for commercial and professional infrastructure, and internal markets dynamics. Puerto Rico is the only economy in the region at the innovation stage; however, the majority of its EFCs show low ratings.

The countries in the LAC region can also be categorized according to their level of early-stage entrepreneurial activity (TEA) rates. Ecuador, Chile and Colombia fall into the high TEA group; Peru, Barbados, Brazil, Mexico and Guatemala have average TEA rates; and Uruguay, Panama and Puerto Rico comprise the low TEA group. No clear pattern emerges with respect to links between level of TEA and the framework conditions, although the average ratings for the EFCs in the high TEA countries tend to exceed those for the other TEA groupings.

Table 5.3: Experts' assessment of GEM Entrepreneurial Framework Conditions for LAC region (mean scores), by country and phase of economic development, GEM 2015

Stage of economic development	Country	1	2a	2b	3	4a	4b	5	6	7a	7b	8	9
Efficiency-driven	Colombia	3.2	3.8	3.4	4.3	2.9	5.3	3.5	4.1	4.1	4.2	6.2	5.2
	Ecuador	3.4	4.7	3.2	4.4	3.7	6.2	3.7	4.9	3.7	4.2	7.6	5.8
	Guatemala	2.8	2.6	3.2	3.3	2.1	4.6	2.8	3.2	3.2	3.3	6.1	4.3
	Peru	3.0	3.1	3.0	3.7	3.0	5.0	3.0	3.7	3.8	3.8	5.6	5.0
Efficiency-driven economies (global average)		3.9	3.9	3.6	3.8	2.9	4.6	3.5	4.8	5.0	3.9	6.3	4.5
Efficiency-driven in transition to innovation-driven	Argentina	3.1	3.0	1.9	3.7	3.0	4.8	3.7	4.7	5.6	3.8	5.8	4.9
	Barbados	3.1	3.7	2.5	3.5	2.6	4.5	2.9	4.8	4.4	3.6	6.1	4.3
	Brazil	3.9	3.7	2.2	3.4	2.1	3.8	2.9	4.2	5.0	3.5	4.7	3.9
	Chile	3.5	4.6	5.4	5.4	2.4	4.9	3.5	4.7	3.4	3.8	7.5	5.1
	Mexico	4.0	4.8	3.7	5.1	2.6	5.4	4.1	4.7	5.4	3.6	6.3	5.0
	Panama	3.3	2.7	5.5	3.7	1.9	3.7	3.2	4.4	4.2	4.4	7.1	5.2
	Uruguay	3.7	3.4	3.7	5.1	2.0	4.6	4.2	5.1	3.2	4.1	6.2	3.6
Economies transitioning to innovation-driven (global average)		4.0	3.8	3.5	4.2	2.7	4.6	3.7	4.9	5.0	4.0	6.3	4.6
Innovation-driven	Puerto Rico	3.3	4.1	2.2	3.3	2.0	4.2	2.9	4.6	4.3	3.7	5.5	3.8
Innovation-driven economies (global average)		4.5	4.5	4.1	4.6	3.5	4.6	4.3	5.2	4.9	4.5	6.6	4.8
Latin America and Caribbean (average)		3.4	3.7	3.3	4.1	2.5	4.8	3.4	4.5	4.2	3.8	6.2	4.7

* Categories 1 - 9 are defined in Table 5.1.

Figure 5.1: Entrepreneurial climate in LAC countries, GEM 2015

Figure 5.1 provides a global assessment of the entrepreneurial climate[1] for each of the Latin American and Caribbean countries: Ecuador, Chile and Mexico show an average entrepreneurial climate; Colombia, Uruguay and Panama a mid-low climate; and Argentina, Brazil, Peru, Guatemala, Puerto Rico and Barbados a low climate.

1 In order to compare the LAC countries' entrepreneurial ecosystems, the authors asked the GEM data team to create an EFC 'composite' index for each economy. This gave a single score for each economy, which was then categorized as low (red), mid-low (orange) and mid (yellow) entrepreneurial climate.

5.3 AN OVERVIEW OF EXPERTS' ASSESSMENT OF THE ENTREPRENEURSHIP ECOSYSTEM

Table 5.3 shows **means scores** for each EFC, sorted by stage of economic development and country. It is important to point out that the analysis of each EFC below takes into account features that are not depicted in this table due to size constraints. This analysis draws on the detailed experts' questionnaire. In order to assess the national conditions influencing entrepreneurial activity in each country, experts were asked to complete a closed questionnaire consisting of a number of statements relating to each of the EFC categories (see Appendix 2).

Entrepreneurial finance

Securing sufficient funding is an important resource for every business, especially for start-ups and for growing firms. The regional average for this EFC (3.4) is relatively weak, below the GEM average of 4.2. There is consensus among experts in the region that entrepreneurs generally have insufficient capital of their own to fund their businesses, and the majority finance their ventures through family and friends, or other informal investors who do not become partners or have any stake in the business. The stock market does not seem to be an option as a source of entrepreneurial finance while angel investors, venture capitalists and crowdfunding are scarce. In general, with the exception of Chile and to a lesser extent, Uruguay, public or government subsidies do not exist. Given that start-up funding for small businesses in the region often comes from families or informal investors, the youth, women and people in rural areas are not at a disadvantage in their attempts to start small businesses.

Government policies

The transition from an intentional entrepreneur to one who actually starts a business is complex, and many entrepreneurs do not pass the intentional stage for a variety of reasons. The importance of government policies in enhancing entrepreneurial activities is recognized throughout the world. Although it is not government's responsibility to start new businesses and provide employment, it is their responsibility to provide an environment that is conducive to starting and sustaining a new business, through reforms and regulations that increase the ease of doing business and lessen unnecessary bureaucratic burdens.

Government policies is a low performance EFC for a number of economies in the LAC region. The exceptions are Chile, Mexico and Ecuador, with these experts rating government support in their countries as moderate. The lack of priority given to entrepreneurship support as a public policy at the central, local or autonomous government level, as well as the prevalence of bureaucracy and taxes that do not favor the creation of new businesses, are common concerns for the region. In some countries, however, the bureaucratic burdens are less onerous. In Chile and Panama, permits for business can be obtained in about a week and without undue difficulty; in Chile, Panama and Uruguay, laws, regulations, and taxes are fairly predictable and applied in a consistent manner.

Government entrepreneurship programs

Government programs supporting entrepreneurs are insufficient in the region, with the experts giving low ratings to the role of research parks and incubators, professional qualifications of supporting personnel, the number of programs and their effectiveness. Chile is the only country where experts gave a moderately positive rating to these factors. Experts in countries such as Uruguay, Panama and Ecuador gave positive ratings to the contributions of incubators and the quality of professionals and research parks; Mexico also received positive ratings for the latter.

Entrepreneurial education

GEM has shown that there is a direct correlation between the levels of perceived capabilities and the level of TEA in a country. Education is inextricably linked to entrepreneurial intentions and growth as it influences entrepreneurs' confidence in whether they have the skills and knowledge to start a business. The LAC region's low score for entrepreneurship education and training in primary and secondary schools is not unusual but is part of a broader problem that transcends geography as well as stage of economic development. However, this EFC is the weakest entrepreneurial condition in the region, and therefore of concern.

All the countries in the region gave very low ratings to the sufficiency and quality of entrepreneurial education at the school stage, with experts feeling that the education system does not encourage creativity, self-efficacy or personal initiative. Entrepreneurship education at the post-school stage receives more positive ratings. Argentina, Chile, Peru, Uruguay, Guatemala and Barbados have average ratings for management and continuing or executive education and its impact on entrepreneurship and business development; Mexico, Colombia and Ecuador show higher ratings for this component. Brazil, Panama and Puerto Rico, on the other hand, report low scores for all the components of entrepreneurial education. However, all countries in the region have shown some improvement in this EFC over the past five years.

R&D transfer

Innovation capabilities - which are important to economies' ability to become competitive, particularly in higher-productivity sectors – are heavily dependent on research and development. Effective innovation capabilities require a business environment that facilitates entrepreneurship and provides the access to finance necessary for the creation and growth of innovative firms. Such an environment needs to be supported by effective university and research institutions with strong links to industry.

All the countries in the region, irrespective of their stage of economic development, are low performers in terms of R&D transfer. Mexico and Uruguay are the only countries where experts believe that the science and technology base moderately allows for the development of competitive technology-based businesses.

Commercial and legal infrastructure

Regarding the availability of and access to professional services for entrepreneurs, Uruguay obtained the best rating (although qualified as slightly sufficient) and Peru the worst. The main problem identified by the experts was that although services and support are available in every country, new businesses cannot afford those services. All countries have an average performance in terms of the access to legal, labor and fiscal consulting, as well as banking, and have been steadily improving in time; however, Peru and Argentina show the lowest score in terms of banking services.

Internal market dynamic and entry regulation

Internal market features, such as demand and supply, import and export, monopolies or existing entry barriers can limit entrepreneurial activities. The LAC region obtains an average score for the market dynamic factor, showing relative stability of the markets for goods and services. Argentina, Brazil and Mexico score slightly above average and have been consistently improving over the years, a potential indicator of more agile markets. With regard to entry burdens and aggressive competition for new and growing companies, almost every country in Latin America obtained low scores. In particular, the experts noted the lack of affordability of market entry costs. All countries rate medium or low for the effectiveness of antitrust law. Surprisingly, Chile scores low in all market indicators.

Physical and services infrastructure

This is one of the best-rated EFCs in the region, with an average score of 6.2. Chile, Ecuador, and Panama have the highest ratings, with scores over 7.0 for all three countries. The regional average is brought down by low scores for this EFC in Brazil (4.7) and Puerto Rico (5.5). Important components assessed include:

A. Support provided by roads, highways, telecommunications, etc. to new and growing businesses; in this regard, Peru, Argentina, Colombia, Guatemala and Uruguay score poorly.

B. Ease of access to and affordability of utility services (electricity, gas, water, sewerage); Argentina, Chile and Ecuador rate above average, while Peru, Brazil, and Puerto Rico have very low scores.

C. Ease of access to ICT services (phone line, Internet); here Ecuador and Panama show the highest rates and Brazil, the lowest.

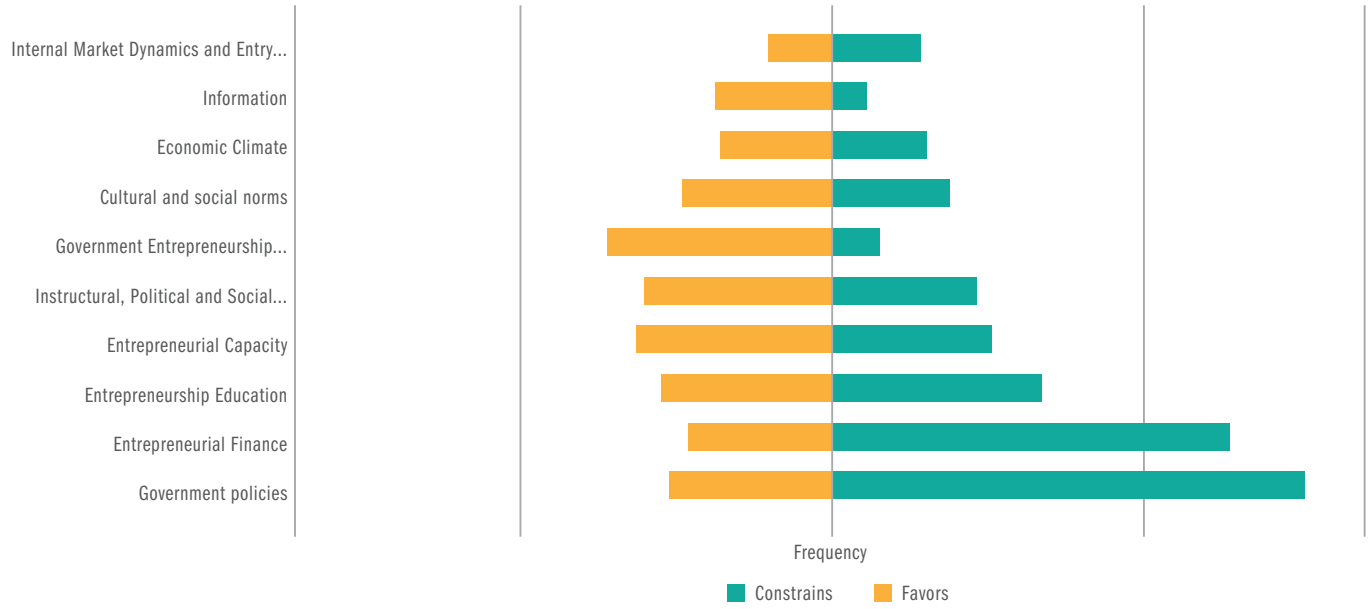
Cultural and social norms

Countries in the region have, on the whole, average and slightly above average performance in this EFC. Ecuador is the region's best performer and is, in fact, ranked in the top 10 worldwide for this indicator. Brazil, Puerto Rico and Uruguay obtain the lowest scores. Experts mostly agree on the fact that the social and cultural norms in Latin America and Caribbean, although favoring entrepreneurs, do not foster entrepreneurial risk-taking.

5.4 FACTORS FOSTERING AND CONSTRAINING ENTREPRENEURSHIP

In addition to the closed questionnaire, the experts were asked to identify and comment on the main enablers as well as the main constraints for entrepreneurship in their countries, and to make recommendations aimed at stimulating entrepreneurship in their respective economies. The following section describes the EFCs that, in the experts' opinion, enhance or undermine the regional entrepreneurial ecosystem. **Figure 5.2** shows the frequency of references made by the experts to key factors, to create an overview of strengths and weaknesses within the context of the LAC region.

Figure 5.2: Top ten fostering and constraining entrepreneurial ecosystem factors for LAC region, GEM 2015



Financial support – Experts consider this factor, in general, as a constraint for entrepreneurship; however, it emerges as a fostering factor for Chile, Ecuador, Panama, Peru, and Uruguay.

Government policies – For Argentina, Brazil, Ecuador, Peru, Puerto Rico and Uruguay, government policies are mostly regarded as a constraint. This is the case to a lesser degree for Mexico, Chile and Colombia, countries where the same factor also plays a role in fostering entrepreneurship.

Government programs – For most of the countries, this is one of the main conditions supportive of entrepreneurs; for Panama, however, it is at the same time a constraint.

Education and training – This is still a constraint in Brazil, Panama and Guatemala; for the remaining countries, and particularly for Mexico, Puerto Rico, Barbados, Ecuador and Colombia, education is a factor fostering entrepreneurship.

R&D transfer – Although not highlighted enough by experts, this is mostly a constraint in Brazil, and a support factor in Uruguay, Mexico and Ecuador.

Commercial and legal infrastructure – This is a constraint mainly in Chile, Mexico, and Barbados; in Ecuador, Brazil, and Peru, it is a factor that fosters entrepreneurship.

Internal market dynamic and entry regulations – For most of the countries, these factors function as constraints, except for Brazil and Ecuador and partially in Colombia, Guatemala and Peru.

Physical infrastructure – This is one of the main factors supporting entrepreneurship, except in Brazil and Puerto Rico, and to a lesser extent in Guatemala, countries where it acts as a constraint.

Cultural and social norms – In general, this factor fosters entrepreneurship in the region, except in Uruguay, Barbados and Chile.

Entrepreneurial capacity – Pertaining to entrepreneurial abilities, generalized entrepreneurial spirit, and the degree of involvement in entrepreneurial activities, this factor is an asset that fosters entrepreneurship in Brazil, Argentina and Barbados, and to a lesser extent in the remaining countries, except Colombia and Puerto Rico.

Economic climate – This relates to a country's economic health, competitiveness, crises and recessions, among other factors. The economic climate is an entrepreneurship enabler in Peru, Panama, Colombia, Barbados and Uruguay; in contrast, in Brazil, Chile, and Mexico it constitutes a constraint, while for Argentina and Ecuador, the economic climate acts in both roles.

Work force features – This factor takes into account all aspects related to the labor market, full employment and unemployment directly related to entrepreneurs' motivations. It is mostly a fostering factor, with the exception of Argentina, Brazil, Peru, Ecuador and Uruguay.

Perceived population composition – This includes all aspects related to population composition, migrants, ethnics, demographics, etc., and was identified by the experts as a factor supporting entrepreneurship.

Political, institutional and social context – This factor refers to the political and social environment, the strength of institutions, foreign policy, etc. and favors entrepreneurship in Colombia and Puerto Rico. For Argentina, Chile, Mexico and Guatemala, this factor functions in both roles, while it acts mostly as a constraint for Ecuador.

Corruption – There is agreement among the experts that corruption impedes entrepreneurship.

Different performance of small, medium and large companies – This factor refers to the need to differentiate, according to size and nature of business, regulation, taxes, and the like. It is a factor that fosters entrepreneurship in Brazil, and hinders it in Mexico.

Internationalization – This includes aspects such as trade law, international relationships, tariffs, international business and international entrepreneurship. Although having received few mentions, for most of the region this acts as a fostering factor, in particular in Uruguay; in Brazil, Colombia, Guatemala, Panama and Puerto Rico it acts to a lesser extent as a constraint.

Labor costs, access and regulation – This is a subset of work force features and focuses on costs, contracts, human resource management, competencies, etc. This factor hinders entrepreneurship for all countries except Guatemala. Brazil and Ecuador are the countries where it constitutes the greatest constraint.

Information – This factor has emerged in recent years, acting as a fostering factor mainly for Argentina and Brazil and as a relatively important constraint for Mexico.

5.5 RECOMMENDATIONS FOR IMPROVING THE ENTREPRENEURIAL ECOSYSTEM

Experts' recommendations on the main areas in need of informed policies to support entrepreneurship are concerned predominantly with policy developments in entrepreneurial finance; government policies; education; institutional, political and social context; and information.

What clearly emerges from the regional analysis of the results of National Experts Survey is that the LAC region is not characterized by high entrepreneurial dynamics. Every country shows a few notable positive factors, as well as a mix of strengths and weaknesses chaotically interacting. The questions in the NES questionnaire are not specific with regard to types of policies; however, it is recognized that entrepreneurship support policies are often not good policies (Shane, 2009), or that they conflict with industrial policies, or that entrepreneurial development may become a victim of policies' side effects. The heterogeneity in the region, and sometimes even inside countries, calls for more integral and articulated productive development policies (IDB, 2014) where entrepreneurship and innovation are central for competitiveness.

In spite of the above, the general climate of the region, as pictured in **Figure 5.1**, provides a starting point that should be complemented by the analysis of specific factors and other related indices for the region (ICSED, for example) (Kantis, Federico, and Ibarra, 2016), depending on the country's economic development stage or degree of development of the entrepreneurial ecosystem.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

Most of the Latin American and Caribbean region economies have during the last 15 years benefited from rapid economic growth, due to a favourable external context, characterized by high price of its main export products - commodities - and low interest rate. The actual perspectives are quite different and new entrepreneurial orientations are going to be required. Many countries took advantage of this bonanza to invest, notably in education and infrastructure, and that will help them in the future years where the drop in commodity prices is going to affect the economies of the LAC countries. The counterpoint to these circumstances was a toned-down version of the "Dutch disease": the increase of the exports of primary products and massive capital inflows led to a decrease in the real exchange rate, leading to a substantial decline of exports of industrialized products.

The decrease in the price of commodities and the foreseeable increase in the rate of interest within a relatively short time are not the only bad news for the LAC region. The worldwide favourable attitude toward globalization has diminished and in some cases reversed, being replaced by a greater emphasis on regional agreements. This trend will also affect the LAC region, that needs new markets to improve its options toward development

Like the rest of the world, the region faces challenges such as persistent jobless growth, climate change and an increasing dependence on technology in today's business environment. Unemployment and underemployment, is a critical factor - especially among the youth, who now form a large section of the population. Given the fact that the proportion of youth to adults is ever increasing and their high levels of unemployment LAC countries could well present a crisis in the near future. Governments face a challenge with respect to their youth populations where two potential scenarios exist, depending upon the interventions adopted. Youth could be a "gold mine" if correctly channelled but could also be a potential time bomb if the situation is not addressed.

Another very important factor is the accelerated process of technological development, which will lead in a relatively short time to a radical change in the structure of the productive activities. Processes automation, robotization, additive manufacturing, drones, big data, and the internet of things, genetic engineering and advances in the generation of sustainable energy (photovoltaic, wind, and biomass) – among other technologies – are changing the scope of industrialization. LAC countries will need, as a matter of urgency, to address training processes in these technologies and to adapt their productive infrastructure to them, because there is a risk of the disappearance of enterprises based on old technologies. The strategy has to be adapted to the new knowledge-intensive production system to improve the role of the productive sector.

In this context the role of dynamic entrepreneurs is vital. The dynamic entrepreneur is based on innovation, which by definition is to generate the new, that which cannot be generated through the extrapolation of the historical. In each productive sector dynamic entrepreneurs identify creative means through which to overcome the obstacles that inhibit development, generating value for consumers and employment through this activity. As has already been indicated, the innovation performance of the LAC region is particularly low in relation to the rest of the world, which suggests that the work will be especially hard.

What is the role of governments in this process? As has been analysed in this report, the main objectives in this area are as follows:

- Lift the obstacles to dynamic entrepreneurship and facilitate their access to the resources required for their development.
- Carry out actions that facilitate the increase in the incidence of dynamic entrepreneurs within the set of entrepreneurs and intrapreneurship –also dynamic- within established firms.
- Generate institutional and cultural conditions which promote the value of entrepreneurship in society, leading to more people opting to undertake it as a way of life.

This report illustrates the diverse nature of the economies in the region and the diverse profile of the entrepreneurs in the different countries. On this basis it is only possible to make some broad recommendations as each country is different and each country really needs to be treated individually. This will be addressed in the individual GEM country reports, some of which have already been published while others are in process.

Below are some recommendations that can serve as a basis for further consideration and discussion. However, it should be understood that within an economy there are many types of entrepreneurs that are in different stages of development and the interventions need to be geared in each country towards these specific categories of entrepreneur. For example, interventions for necessity-driven or survivalist entrepreneurs will be different to those for small opportunity-driven entrepreneurs, which in turn will be different from high tech, high growth and established businesses.

- Develop institutions that are specialized in the different stages of the entrepreneurial pipeline. Do not continue using the idea that one is good for everyone. There are special needs in every stage of the entrepreneurial pipeline, and the people and the resources to attend those needs should be the specific ones and not the generic ones.

- In almost all countries within Latin America and the Caribbean, the regulatory environment needs to be reformed to make it easier for new businesses to register and operate by cutting costs and reducing the amount of regulation. Chile has gone a long way towards achieving this and could well be used as a model for other countries in the region. Reducing the bureaucracy and red tape is critical in order to make it quicker and easier to start a new business.

- It is very important that all the entrepreneurial development processes include sections on entrepreneurial ethics, social responsibility and sustainability, in order to start a transformation process that leads to better entrepreneurs (in all senses of the word) in the near future. By doing this, the problems that some bad practices (corruption, red tape, avoidance of taxes, etc.) are creating in the entrepreneurial ecosystem and in society will hopefully be avoided.

- Both government and the private sector need to develop innovation capabilities in their human resources as a medium term strategy of improving their economies. . This can be done by introducing suitable mechanisms that improve collaboration between research institutions for new ventures and established businesses. Support should be given to help commercialize some of the valuable intellectual property coming out of research institutions.

- Countries should revisit their educations systems, orienting them better toward the value creation objective.

- Schools and universities should introduce programmes that encourage an entrepreneurial mindset and prepare graduates to work as entrepreneurs and as intrapreneurs, so that they are able to dynamize the economy either by starting their own businesses or by developing and expanding the existing ones. This will foster shared prosperity by increasing economic growth and more robust job creation processes.

- Given the fact that some sectors of the population may not be able to get involved in the new technologies , it is necessary to expand and promote interventions that deal with grass-roots skills gaps, especially in young people with low educational levels, in areas where unemployment is such a crucial problem. This could include the introduction of training centers for teaching artisan skills which will encourage these young people to go out and start their own businesses.

- Relook at funding mechanisms to make it easier for entrepreneurs to access funding. Introduce schemes via banks or government agencies that move away from asset-based assessment criteria to one based upon the quality of the idea and the quality of the entrepreneur. Encourage the creation of seed capital funds, crowd funding mechanisms, bootstraps financing systems, loans as support to the development of more and better enterprises

- Work with local media to create awareness and a positive perception of entrepreneurship as a potential career opportunity. Showcase local successful entrepreneurs as ideal role models and promote competitions and incentives for people to enter into entrepreneurship, as has been done to such good effect in Brazil.

- Maximize the untapped potential of women by introducing special funds to promote women entrepreneurs. Introduce incubators and business support structures to help women entrepreneurs in particular.

- Provide a sound business support infrastructure that provides suitable training, counselling and mentorship by experienced personnel who have run successful businesses and are able to assist from a practical point of view and not purely from an academic perspective.

- Promote entrepreneurship in hi-tech, high value-added businesses by giving suitable support in the way of funding and mentorship.

- Give tax breaks to those people and funders who are interested in financing new businesses, as has been done so successfully in Israel.

There is a need to deepen in the analysis of the different elements that affect the entrepreneurial process. Thus, more research projects in this area should be developed and this study should be the basis for the GEM researchers in Latin America and the Caribbean countries to define the new research lines that should addressed in the future, to provide better guidelines and policy implications for the different countries.

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APPENDIX 1

DATA TABLES

Entrepreneurial pipeline variables, arranged by geographic region, GEM 2015

	Socio cultural acceptance	Potential	Intentional	Nascent	New	Established	Discontinuance
Canada		53,7	17,4	9,7	5,5	8,9	4,9
United States		56,9	17,1	8,3	4,0	7,3	3,6
North America		55,3	17,3	9,0	4,8	8,1	4,3
Botswana	76,1	69,5	65,0	23,0	11,9	4,6	14,7
Burkina Faso	74,8	71,3	64,5	19,7	11,2	27,8	8,1
Cameroon	63,5	69,3	40,6	16,5	10,0	12,9	9,0
Egypt	70,5	51,7	39,5	4,0	3,4	2,9	6,2
Morocco	59,1	47,8	30,5	1,3	3,2	5,2	2,2
Senegal		81,1	73,0	24,9	15,0	18,8	13,3
South Africa	74,1	51,1	13,0	5,5	3,8	3,4	4,9
Tunisia	63,9	55,7	33,7	5,4	4,9	5,0	7,0
Africa	68,9	62,2	45,0	12,5	7,9	10,1	8,2
Australia	66,3	51,1	17,0	7,3	5,8	8,7	4,5
China	73,6	40,5	23,8	6,8	6,3	3,1	2,7
India	41,8	48,3	13,4	7,7	3,2	5,5	2,3
Indonesia	78,4	54,6	30,9	6,1	12,1	17,2	3,7
Iran	65,6	54,0	37,8	7,9	5,3	14,0	6,7
Israel	68,5	47,7	26,3	8,4	3,7	3,9	4,5
Kazakhstan	80,3	50,0	23,7	8,0	3,2	2,4	3,0
Lebanon		59,1	47,8	10,8	20,4	18,0	10,6
Malaysia	51,4	41,5	6,6	0,8	2,3	4,8	1,1
Philippines	77,4	62,1	45,6	7,6	10,1	7,3	12,2
South Korea	51,0	34,9	9,8	5,0	4,3	7,0	2,0
Taiwan	74,1	38,2	27,5	2,5	4,8	9,6	3,8
Thailand	71,1	45,0	20,0	4,5	9,5	24,6	3,4
Vietnam	74,2	53,9	26,2	1,0	12,7	19,6	3,7
Asia & Oceania	67,2	48,6	25,5	6,0	7,4	10,4	4,6
Argentina	60,5	59,0	30,9	11,7	6,3	9,5	6,3
Barbados	67,0	70,7	24,7	11,5	10,7	14,1	3,8
Brazil	75,8	50,5	23,5	6,7	14,9	18,9	6,7
Chile	65,0	64,1	52,2	16,5	9,8	8,2	8,5
Colombia	71,3	60,0	51,8	15,6	7,5	5,2	7,2
Ecuador	68,7	63,5	49,0	25,9	9,8	17,4	8,4
Guatemala	78,7	57,8	40,7	10,8	7,6	8,1	4,0

	Socio cultural acceptance	Potential	Intentional	Nascent	New	Established	Discontinuance
Mexico	47,3	52,5	18,8	16,2	5,0	6,9	6,3
Panama		60,5	16,8	5,2	7,7	4,2	2,2
Peru	70,0	62,6	44,4	17,8	4,9	6,6	8,8
Puerto Rico	44,1	48,1	14,6	6,6	1,9	1,4	0,9
Uruguay	58,5	55,4	31,2	10,6	3,8	2,1	4,8
Latin America & Caribbean	64,3	58,7	33,2	12,9	7,5	8,5	5,6
Belgium	54,5	40,7	12,7	4,5	2,0	3,8	1,9
Bulgaria	59,4	36,1	6,4	2,0	1,5	5,4	1,4
Croatia	50,4	41,7	20,9	5,1	2,6	2,8	2,9
Estonia	55,0	49,5	19,0	8,7	4,7	7,7	2,0
Finland	62,1	48,6	13,4	4,0	2,8	10,2	2,7
Germany	58,8	42,6	9,2	2,8	1,9	4,8	1,9
Greece	55,6	32,3	10,7	3,9	2,8	13,1	3,4
Holland	67,1	50,2	11,1	4,3	3,0	9,9	2,1
Hungary	50,0	39,9	17,1	5,3	2,7	6,5	2,8
Ireland	66,8	47,8	18,5	6,5	3,0	5,6	3,1
Italy	59,5	31,4	9,6	3,2	1,7	4,5	1,9
Latvia	56,8	47,0	23,5	8,6	6,0	9,6	3,4
Luxembourg	52,3	48,2	19,1	7,1	3,2	3,3	4,2
Macedonia	65,1	49,4	24,4	3,0	3,1	5,9	2,3
Norway		56,1	6,1	2,3	3,3	6,5	1,6
Poland	55,9	43,7	22,4	5,7	3,5	5,9	2,7
Portugal	66,0	44,0	18,7	5,6	4,0	7,0	3,2
Romania	71,6	43,7	31,1	6,1	5,1	7,5	3,3
Slovakia	56,3	45,8	18,8	6,5	3,4	5,7	5,4
Slovenia	61,3	43,0	10,0	3,2	2,8	4,2	1,8
Spain	49,5	42,7	6,1	2,1	3,6	7,7	1,6
Sweden	61,3	55,1	10,1	4,8	2,6	5,2	2,7
Switzerland	55,3	49,6	9,5	4,6	2,8	11,3	1,7
United Kingdom	66,1	49,3	9,4	4,0	2,9	5,3	2,3
Europe	59,0	44,9	14,9	4,8	3,1	6,6	2,6

Source: GEM 2015

APPENDIX 2

THE NES QUESTIONNAIRE (CLOSED QUESTIONS)

The following statements assess **national conditions** influencing entrepreneurial activity **in your country**. Please circle the most appropriate option **from 1 = completely false (CF) to 9 = completely true (CT), with 5 = neither true nor false NT/NF. 97 = don't know (DK) and 98 = not applicable (NA).** All refer to **your country.**

TOPIC A: FINANCE **In my country there is sufficient…**		**CF**				**NT/ NF**				**CT**	**DK**	**NA**
A01	Equity funding available for new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
A02	Debt funding available for new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
A03	Government subsidies available for new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
A04	Funding available from informal investors (family, friends and colleagues) who are private individuals (other than founders) for new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
A05	professional Business Angels funding available for new and growing firms	1	2	3	4	5	6	7	8	9	97	98
A06	Venture capitalist funding available for new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
A07	Funding available through initial public offerings (IPOs) for new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
A08	private lenders' funding (crowdfunding) available for new and growing firms											

TOPIC B: GOVERNMENT POLICIES In my country...		CF				NT/ NF				CT	DK	NA
B01	Government policies (e.g., public procurement) consistently favor new firms.	1	2	3	4	5	6	7	8	9	97	98
B02	The support for new and growing firms is a high priority for policy at the national government level.	1	2	3	4	5	6	7	8	9	97	98
B03	The support for new and growing firms is a high priority for policy at the local government level.	1	2	3	4	5	6	7	8	9	97	98
B04	New firms can get most of the required permits and licenses in about a week.	1	2	3	4	5	6	7	8	9	97	98
B05	The amount of taxes is NOT a burden for new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
B06	Taxes and other government regulations are applied to new and growing firms in a predictable and consistent way.	1	2	3	4	5	6	7	8	9	97	98
B07	Coping with government bureaucracy, regulations, and licensing requirements is not unduly difficult for new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
TOPIC C: GOVERNMENTAL PROGRAMMES **In my country...**		**CF**				**NT/ NF**				**CT**	**DK**	**NA**
C01	A wide range of government assistance for new and growing firms can be obtained through contact with a single agency.	1	2	3	4	5	6	7	8	9	97	98
C02	Science parks and business incubators provide effective support for new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
C03	There are an adequate number of government programs for new and growing businesses.	1	2	3	4	5	6	7	8	9	97	98
C04	The people working for government agencies are competent and effective in supporting new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
C05	Almost anyone who needs help from a government program for a new or growing business can find what they need.	1	2	3	4	5	6	7	8	9	97	98
C06	Government programs aimed at supporting new and growing firms are effective.	1	2	3	4	5	6	7	8	9	97	98

APPENDIX **2**

TOPIC D: EDUCATION & TRAINING In my country...		CF				NT/ NF				CT	DK	NA
D01	Teaching in primary and secondary education encourages creativity, self-sufficiency, and personal initiative.	1	2	3	4	5	6	7	8	9	97	98
D02	Teaching in primary and secondary education provides adequate instruction in market economic principles.	1	2	3	4	5	6	7	8	9	97	98
D03	Teaching in primary and secondary education provides adequate attention to entrepreneurship and new firm creation.	1	2	3	4	5	6	7	8	9	97	98
D04	Colleges and universities provide good and adequate preparation for starting up and growing new firms.	1	2	3	4	5	6	7	8	9	97	98
D05	The level of business and management education provides good and adequate preparation for starting up and growing new firms.	1	2	3	4	5	6	7	8	9	97	98
D06	The vocational, professional, and continuing education systems provide good and adequate preparation for starting up and growing new firms.	1	2	3	4	5	6	7	8	9	97	98
TOPIC E: R&D TRANSFER **In my country...**		**CF**				**NT/ NF**				**CT**	**DK**	**NA**
E01	New technology, science, and other knowledge are efficiently transferred from universities and public research centers to new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
E02	New and growing firms have just as much access to new research and technology as large, established firms.	1	2	3	4	5	6	7	8	9	97	98
E03	New and growing firms can afford the latest technology.	1	2	3	4	5	6	7	8	9	97	98
E04	There are adequate government subsidies for new and growing firms to acquire new technology.	1	2	3	4	5	6	7	8	9	97	98
E05	The science and technology base efficiently supports the creation of world-class new technology-based ventures in at least one area.	1	2	3	4	5	6	7	8	9	97	98
E06	There is good support available for engineers and scientists to have their ideas commercialized through new and growing firms.	1	2	3	4	5	6	7	8	9	97	98

TOPIC F: COMMERCIAL & SERVICES INFRASTRUCTURE In my country...		CF				NT/ NF				CT	DK	NA
F01	There are enough subcontractors, suppliers, and consultants to support new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
F02	New and growing firms can afford the cost of using subcontractors, suppliers, and consultants.	1	2	3	4	5	6	7	8	9	97	98
F03	It is easy for new and growing firms to get good subcontractors, suppliers, and consultants.	1	2	3	4	5	6	7	8	9	97	98
F04	It is easy for new and growing firms to get good, professional legal and accounting services.	1	2	3	4	5	6	7	8	9	97	98
F05	It is easy for new and growing firms to get good banking services (checking accounts, foreign exchange transactions, letters of credit, and the like).	1	2	3	4	5	6	7	8	9	97	98
TOPIC G: MARKET OPENNESS **In my country...**		**CF**				**NT/ NF**				**CT**	**DK**	**NA**
G01	The markets for consumer goods and services change dramatically from year to year.	1	2	3	4	5	6	7	8	9	97	98
G02	The markets for business-to-business goods and services change dramatically from year to year.	1	2	3	4	5	6	7	8	9	97	98
G03	New and growing firms can easily enter new markets.	1	2	3	4	5	6	7	8	9	97	98
G04	New and growing firms can afford the cost of market entry.	1	2	3	4	5	6	7	8	9	97	98
G05	New and growing firms can enter markets without being unfairly blocked by established firms.	1	2	3	4	5	6	7	8	9	97	98
G06	The anti-trust legislation is effective and well enforced.	1	2	3	4	5	6	7	8	9	97	98

TOPIC H: PHYSICAL INFRASTRUCTURE In my country...		CF				NT/ NF				CT	DK	NA
H01	The physical infrastructure (roads, utilities, communications, and water disposal) provides good support for new and growing firms.	1	2	3	4	5	6	7	8	9	97	98
H02	It is not too expensive for a new or growing firm to get good access to communications (phone, Internet, etc.).	1	2	3	4	5	6	7	8	9	97	98
H03	A new or growing firm can get good access to communications (telephone, internet, etc.) in about a week.	1	2	3	4	5	6	7	8	9	97	98
H04	New and growing firms can afford the cost of basic utilities (gas, water, electricity, and sewer).	1	2	3	4	5	6	7	8	9	97	98
H05	New or growing firms can get good access to utilities (gas, water, electricity, and sewer) in about a month.	1	2	3	4	5	6	7	8	9	97	98
TOPIC I: CULTURAL AND SOCIAL NORMS In my country...		**CF**				**NT/ NF**				**CT**	**DK**	**NA**
I01	The national culture is highly supportive of individual success achieved through own personal efforts.	1	2	3	4	5	6	7	8	9	97	98
I02	The national culture emphasizes self-sufficiency, autonomy, and personal initiative.	1	2	3	4	5	6	7	8	9	97	98
I03	The national culture encourages entrepreneurial risk-taking.	1	2	3	4	5	6	7	8	9	97	98
I04	The national culture encourages creativity and innovativeness.	1	2	3	4	5	6	7	8	9	97	98
I05	The national culture emphasizes the responsibility that the individual (rather than the collective) has in managing his or her own life.	1	2	3	4	5	6	7	8	9	97	98

TOPIC S: SOCIAL ENTREPRENEURSHIP In the next set of items civil society organisations include NGOs, trade unions, faith-based organizations, indigenous peoples' movements, foundations and the like **In my country...**		**CF**				**NT/ NF**				**CT**	**DK**	**NA**
S01	People who live in poverty cannot rely on the government or civil society organizations	1	2	3	4	5	6	7	8	9	97	98
S02	You will find many business that provide people with basic needs that are covered by governments and civil society organizations in other countries	1	2	3	4	5	6	7	8	9	97	98
S03	Social, environmental and community problems are generally solved more effectively by businesses than by the government and civil society organizations.	1	2	3	4	5	6	7	8	9	97	98
S04	Entrepreneurs' associations/ groups challenge existing regulations that negatively impact particular groups in society or the environment	1	2	3	4	5	6	7	8	9	97	98
S05	The government is able to bring together potential entrepreneurs, businesses and civil society organizations around specific social, environmental or community projects.	1	2	3	4	5	6	7	8	9	97	98
S06	Consumers are putting pressure on businesses to address social and environmental needs	1	2	3	4	5	6	7	8	9	97	98
S07	There are sufficient private and public funds available for new and growing firms that aim at solving social and environmental problems	1	2	3	4	5	6	7	8	9	97	98
S08	There is a lot of media attention for new and growing firms that combine profits with positive social and environmental impact.	1	2	3	4	5	6	7	8	9	97	98