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CAF's Economics and Development Report - RED 2013: Enhancing productivity in Latin America: from subsistence to transformational entrepreneurship

Latin America's low aggregate productivity growth is reflected in an overwhelming number of self-employed and micro-businesses and a shortage of medium-sized and larger establishments capable of generating quality jobs and productivity gains. A lot of these small-scale enterprises stem from lack of other opportunities in the labor market and do not have the potential to become dynamic or transformational. Meanwhile, formal firms face external and internal restrictions to grow and to create enough high-quality jobs.



The Economics and Development Report 2013 emphasizes the role of entrepreneurship—the creation of companies that generate sustained increases in employment and productivity—as a key factor to Latin America's development. It does so in a comprehensive way, reviewing not only the potential impediments for high-skilled innovative entrepreneurs to realize their projects, but also the reasons why entrepreneurs with less potential opt for entrepreneurial activities instead of a salaried job.

One of the report's main messages is that these two phenomena –constrained growth for dynamic companies and abundance of subsistence businesses—are closely linked; and recognizing this link is crucial to design entrepreneurship policy. This policy needs to adopt a multidimensional approach, integrating things like entrepreneurial talent, innovation fostering, financial access, and training.

The Economics and Development Report 2013 seeks to contribute to the understanding of these issues and to the implementation of policies that create jobs and boost productivity in the region. This fifth edition of Focus Latin America highlights some of the report's most important results. ■

Is there lack of entrepreneurial spirit in Latin America?

A key determinant of economic development is productivity growth—the different initiatives that make it possible to produce more goods and services with the given stock of physical and human capital in an economy. Among the factors affecting productivity are technological progress (which results in new goods or new production methods), access to new domestic and international markets, and improvement in firms’ management and administration processes. The innovation and creation of new products and markets is led by entrepreneurs capable of visualizing new demands, finding market applications for new technologies, and coordinating the factors of pro-

duction within their organizations more efficiently. These entrepreneurial activities often give birth to new businesses, the most successful of which grow fast and graduate swiftly from small firms to medium and large enterprises, selling their products across domestic and foreign markets.

Therefore, a key symptom of the economy’s productivity, partly reflecting entrepreneurial activity, is the size distribution of firms. In Latin America this distribution shows that firms are smaller than in developed countries, and fewer new enterprises enjoy high growth potential. For example, firms with more than 26 years of age employ

only three times more people than firms younger than 6 years old; in European countries this ratio is 7 to 1.

What accounts for the low creation and development of highly productive firms in the region? Could this reflect its citizens’ less entrepreneurial disposition vis-à-vis the developed world? We explore these questions relying on the latest CAF survey (ECAAF 2012), which measured, among other things, personality traits and skills associated with entrepreneurial activity.

Although the concept of entrepreneurial skill has a blurry definition, different approaches from the fields of eco-

Table 1. Estimates of entrepreneurial talent indicators. Average of the selected cities of Latin America and the U.S. (2012)^{a/ b/}

	Average for the selected cities of Latin America					Los Angeles, U.S.		
	Employed population	Salaried employee	Entrepreneur	Type of entrepreneur		Employed population	Salaried employee	Entrepreneur
				Employer	Self-employed			
Management skills								
Need for achievement	3.77 ^{c/}	3.75 ^{d/}	3.80 ^{d/}	3.92 ^{f/}	3.77 ^{f/}	3.59 ^{c/}	3.56 ^{e/}	3.74 ^{e/}
Internal locus of control	3.45	3.45	3.44	3.58 ^{f/}	3.41 ^{f/}	3.47	3.43 ^{e/}	3.63 ^{e/}
Span of Activity	2.95 ^{c/}	2.94	2.97	3.05	2.95	3.04 ^{c/}	3.04	3.02
Self-efficacy	4.23	4.23	4.23	4.28	4.22	4.20	4.16	4.33
Innovation								
Innovation and creativity	2.61 ^{c/}	2.60	2.62	2.81 ^{f/}	2.58 ^{f/}	2.94 ^{c/}	2.91	3.06
Risk attitude								
Risk tolerance	2.30	2.15 ^{d/}	2.54 ^{d/}	2.90 ^{f/}	2.46 ^{f/}	2.41	2.30 ^{e/}	2.83 ^{e/}
Autonomy	3.72 ^{c/}	3.72	3.73	3.84 ^{f/}	3.70 ^{f/}	3.61 ^{c/}	3.60	3.67

^{a/} The psychological traits indexes are constructed as simple averages of the responses to questions indicative of each of the features. Each index ranges from 1 to 5, and a higher value is associated with a greater presence of the corresponding psychological trait in the individual. The indicator of risk tolerance is based on an exercise in which the individual must choose between a payment and a lottery with a certain expected value. The indicator ranges from 1 to 4, and a higher value is associated with a higher risk tolerance.

^{b/} Buenos Aires, Cordoba, La Paz, Santa Cruz, San Pablo, Rio de Janeiro, Bogota, Medellin, Quito, Guayaquil, Panama City, Lima, Arequipa, Montevideo, Salto, Caracas, Maracaibo and Los Angeles.

^{c/} The values for the employed population are statistically different between the cities of Latin America and Los Angeles (a significance level of 5%).

^{d/} The values for salaried employees and entrepreneurs are statistically different from each other in the cities of Latin America (with a significance level of 5%).

^{e/} The values for employees and entrepreneurs are statistically different from each other in the city of Los Angeles (a significance level of 5%).

^{f/} The values for employers and self-employed are statistically different from each other in the cities of Latin America (with a significance level of 5%).

Source: chapter 1. RED 2013.

nomics, management, and business psychology coincide in highlighting that a good entrepreneur must be creative and innovative, have managerial skills (need for achievement, internal locus of control, span of activity , self-efficacy) and be at least moderately capable of tolerating risk. He must also prefer autonomy.

ECAF 2012 was conducted on a sample of 500 households in 17 cities from Latin America and in the city of Los Angeles (USA)¹. The reason to include Los Angeles was to have a developed country as a benchmark. Table 1 shows the average scores for the aforementioned personality traits and skills among the employed population in the surveyed cities, distinguishing by occupation type (entrepreneurs versus employees) and, within Latin America, by whether entrepreneurs are ‘employers’ or ‘self-employed’. The scale goes from 1 to 5, with a higher value indicating a stronger presence of the personality trait or skilled under analysis².

When comparing the average scores of the employed population in Latin America with those of the employed population in Los Angeles, it is not obvious that one group scores better than the other in the abilities associated with entrepreneurship. Latin Americans seem to score better in need for achievement and have a greater preference for autonomy. But the workers from Los Angeles score better at span of activity and creativity. And there are no significant differences between the two groups in terms of internal locus of control, self-efficacy and risk tolerance.

It is also interesting to analyze these indicators by occupational category. The results are very intuitive. Entrepreneurs from both Latin America and Los Angeles have higher risk tolerance than employees, and they also score slightly higher in need for achievement. Furthermore, in Los Angeles, there are also significant differences between the two occupation groups

with regard to internal locus of control and self-efficacy; and in Latin America, there are significant differences within entrepreneurs, between the employers and the self-employed. The employers have greater need for achievement, internal locus of control, creativity, risk tolerance and preference for autonomy than the self-employed and the employees. This means that a large share of the region’s entrepreneurs –the self-employed-- possess entrepreneurship abilities that are significantly poorer than those of the employers, and (barring greater risk tolerance) rather resemble those of the employees.

This evidence suggests that Latin America has no less entrepreneurial capacity than developed countries (in this case, represented by the city of Los Angeles), but its problem may be that people with low skills –basically an important share of micro-entrepreneurs—are self-employed when their best option may be to work as employees. ■

¹The cities of Latin America included in the survey are: Buenos Aires, Cordoba, La Paz, Santa Cruz, San Pablo, Rio de Janeiro, Bogota, Medellin, Quito, Guayaquil, Lima, Arequipa, Montevideo, Salto, Caracas, Maracaibo and Panama city.

²Details of the questionnaire used to measure each of the characteristics can be found at RED 2013.

Who are Latin America’s entrepreneurs?

Latin America stands out for the fact that a high share of the population is engaged in some kind of entrepreneurial activity. However, it also stands out

for its low productivity, which has been identified as one of the reasons behind its persisting development gaps. The answer to this apparent paradox lies, in

part, in understanding who the region’s entrepreneurs are, and why they chose to be entrepreneurs.

The entrepreneurial population in Latin America is very heterogeneous. It comprises individuals with high entrepreneurial talent leading large and highly productive firms; people who seek a source of income in the face of no other attractive employment opportunities; and people who engage in entrepreneurial activities for as diver-

se reasons as gaining independence, work flexibility, or autonomy. Although this heterogeneity is common to both Latin America and developed economies, Latin America has a high proportion of entrepreneurs without the talent or ambition required to create high-value businesses; people who choose to become entrepreneurs because they have no better options.

Table 2 shows the breakdown of the employed population by occupa-

tion in 18 Latin American countries and the United States. It shows that the percentage of employers is relatively similar in Latin America and the United States (3.3% on average in Latin America versus 4% in the United States). However, the percentage of self-employed workers is much higher in the region (28.7% versus 6.1% in the United States), and the percentage of salaried employees is much lower (54.8% versus 80.4%, respectively). Moreover,

the percentage of employers in Latin America who manage 10 employees or less is 91%, compared with only 69% in the United States. All this leads us to conclude that an important fraction of the employed population of the region is concentrated in small firms. Due to the close relationship between firm size and productivity, this phenomenon can be highlighted as one of the reasons explaining low aggregate productivity in Latin America.

Table 2. Breakdown of the workforce by occupational category and size of firms in selected countries of Latin America and the U.S.

Country	Year	Workforce ^{a/} (percentage)			Employers by firm size (percentage)		Salaried workers by firm size (percentage)	
		Employer	Self-employed	Salaried employee	Up to 10 employees	More than 10 employees	Up to 10 employees	More than 10 employees
Argentina	2010	4.1	16.5	71.3	88.1	11.9	55.7	44.3
Bolivia	2008	5.9	33.9	37.2	95.1	4.9	61.8	38.2
Brazil	2009	4.0	18.9	61.3	n.a.	n.a.	n.a.	n.a.
Chile ^{b/}	2009	2.8	18.1	68.5	62.3	37.7	31.3	68.7
Colombia	2010	4.5	39.1	41.7	94.1	5.9	49.0	51.0
Costa Rica ^{b/}	2010	3.1	17.5	70.6	86.1	13.9	42.9	57.1
Dominican Republic	2010	3.6	42.0	49.0	95.5	4.5	31.9	68.1
Ecuador	2010	3.3	30.0	52.4	91.1	8.9	59.0	41.0
El Salvador	2010	3.8	28.3	53.7	95.2	4.8	45.2	54.8
Guatemala	2006	3.8	30.6	50.8	95.5	4.5	55.8	44.2
Honduras	2009	2.4	42.8	42.9	94.7	5.3	57.0	43.0
Mexico	2006	3.9	21.8	64.9	90.9	9.1	48.7	51.3
Nicaragua	2005	4.4	29.8	46.9	n.a.	n.a.	n.a.	n.a.
Panama	2010	3.0	24.9	61.9	90.7	9.3	36.9	63.1
Paraguay	2010	5.0	32.2	49.6	92.5	7.5	66.8	33.2
Peru	2010	5.7	35.9	41.5	95.4	4.6	55.7	44.3
Uruguay ^{b/}	2010	4.5	21.0	66.5	87.2	12.8	45.3	54.7
Venezuela	2007	3.9	32.9	54.9	94.6	5.4	46.4	53.6
United States ^{b/}	2011	3.3	6.1	80.4	68.8	31.2	15.0	85.0
Latin America		4.0	28.7	54.8	90.6	9.4	49.3	50.7

a/ The difference between the sum of the percentages of employers, employees and self-employed in the labor force and 100% is explained by the participation of unpaid family workers and the unemployed.

b/ In these countries the size distribution is made in companies with less and more than 9 employees.

n.a.: not available.

Source: Chapter 2. RED 2013.

The evidence that a large part of Latin America's entrepreneurial activity is motivated by lack of employment opportunities stems from looking at occupation transitions. While for every 100 unemployed in the United States in a given year, 61 become salaried employees the next year and only three decide to become self-employed³, in Latin America only 48 become salaried employees and 16 become self-employed⁴. That is, more entrepreneurs in Latin America than in the United States emerge from a situation of unemployment. And to the extent that entrepreneurship is a refuge from unemployment, its potential productivity will be lower. This is confirmed by observing the frequency at which one-person enterprises are able to grow into larger companies and hire

employees. While in the United States nearly 10% of the self-employed succeed in becoming employers from one year to the next, in Latin America this figure is below 6%. In addition, self-employed workers in Latin America have a greater probability of failing and falling back into unemployment the following year. In other words, the region's self-employed run businesses with lower growth potential and greater vulnerability (measured as the risk of becoming unemployed).

The motivation behind entrepreneurship is not the only difference between the employers and the self-employed in Latin America. There exist also different demographic, socio-economic, and even psychological characteristics between the two groups. The em-

ployers have higher education attainment and more work experience than the self-employed; they come from families with higher wealth, being more likely to take after a father who was also an entrepreneur; they make a higher average income and are more satisfied with their job; and while both of these entrepreneurial types boast higher risk tolerance and goal orientation than the non-entrepreneurs, employers are more creative and innovative and have greater managerial skills, measured by their multi-tasking ability.

Understanding the heterogeneity of entrepreneurial population is critical to design entrepreneurship policies, since not all the entrepreneurs possess the potential and ambition to create value-added ventures or a large number of jobs. ■

³ The rest continue to be unemployed or leave the workforce while a minority become employers.

⁴ Latin America's data were calculated using annual job transitions in Argentina, Brazil and Venezuela over the past decade.

Entrepreneurial Latin America: Subsistence or dynamic entrepreneurship?

Not all enterprises are the same. While some can be categorized as "subsistence" enterprises, others can be said to be "transformational" or "dynamic". In any given country, the share of each type of enterprise will be defining of its economic growth. This is because it is "transformational" or "dynamic" enterprises that have the scale and capabilities needed to innovate and create quality jobs.

Latin America has a high rate of entrepreneurship among its workforce. However, 75% of its entrepreneurs are

actually micro-entrepreneurs (running enterprises with less than five employees) who account for about 40% of salaried private employment. In other words, there are many microenterprises employing a very large share of the workforce, mostly informally. Moreover, on average 27% of the employed population is made up by non-professional, self-employed workers—i.e., often just individuals behind stalls on the street or in improvised businesses within their family homes. Furthermore, many micro-enterprises have a low probability of becoming large and

productive and, many times, they are founded by individuals who were formerly unemployed.

The large number of micro-entrepreneurs in Latin America, their personal traits, and the characteristics of their businesses raise questions as to how they came to be: are they potentially successful entrepreneurs, only hindered by external restrictions? or is it that these entrepreneurs do not have any better employment options and start their own businesses only for this reason? These two questions imply

two different approaches to micro-entrepreneurship. An affirmative answer to the first question would support the argument that blames property rights restrictions and low access to credit for the sluggish growth of micro-enterprises⁵. In contrast, an affirmative answer to the second question would suggest that micro-entrepreneurs are actually “hidden unemployed workers” who would rather have a salaried job, and for whom access to credit is not the main constraint to expand their businesses or innovate to increase their productivity.

In reality, Latin American micro-entrepreneurs are very diverse, and neither of these extreme positions can explain them all. Therefore, in order to design entrepreneurship policy it is crucial to know which percentage of micro-entrepreneurs have potential to grow, and which percentage comes closer to the idea of subsistence entrepreneur-

ship. Although this is no easy task, observing the productive and socio-economic differences among enterprises can help understand the relative importance of each group. For example, a statistical analysis of group separation (discriminant analysis) based on the features that differentiate each set –using the ECAF 2012 data on 17 cities in Latin America⁶– indicates that about 75% of micro-entrepreneurs are actually subsistence entrepreneurs (see Figure 1). This type of micro-entrepreneur resembles a salaried worker more than a proper entrepreneur (running a medium or large enterprise). Moreover, within subsistence micro-entrepreneurs, more than 70% resemble informal salaried workers more than formal salaried workers (i.e., they are less educated and come from poorer socio-economic backgrounds).

Although these results indicate that most micro-enterprises are just a mere refuge from unemployment, they also show that about a quarter of the entre-

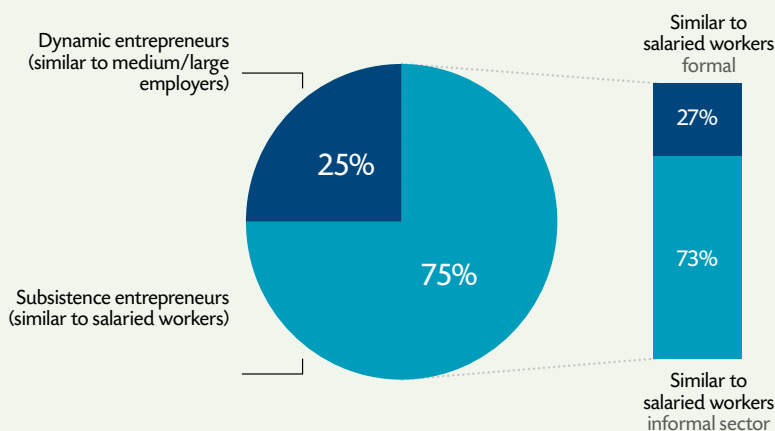
preneurs would indeed have potential to grow. Relaxing their financial constraints and supporting them to improve their business practices could be key engines for higher performance and the resulting creation of new jobs.

In turn, if the entrepreneurs with potential indeed created new jobs, hopefully they could employ those who are currently self-employed out of need. However, given that less than 30% of subsistence entrepreneurs have good “employability” (they resemble formal salaried workers more than informal ones), this transition between occupations may be limited. Public policies oriented toward bolstering human capital among subsistence entrepreneurs may improve their employability, in turn facilitating their passage to the salaried jobs that more dynamic micro-enterprises or bigger companies could create.■

⁵ This vision is epitomized by Hernando de Soto’s work.

⁶ Buenos Aires, Cordoba, La Paz, Santa Cruz, San Pablo, Rio de Janeiro, Bogota, Medellin, Quito, Guayaquil, Panama City, Lima, Arequipa, Montevideo, Salto, Caracas and Maracaibo.

Figure 1. Subsistence microentrepreneurs versus dynamic microentrepreneurs in selected cities of Latin America (2012)^{a/}



a/ Buenos Aires, Cordoba, La Paz, Santa Cruz, Sao Paulo, Rio de Janeiro, Bogota, Medellin, Quito, Guayaquil, Panama City, Lima, Arequipa, Montevideo, Salto, Caracas and Maracaibo.

Source: Chapter 3. RED 2013.

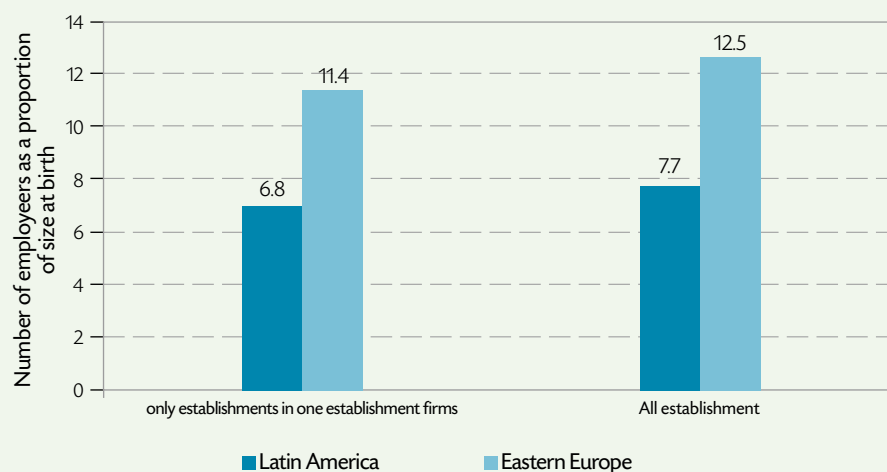
Dynamic enterprises and productive transformation in Latin America

One of the most prominent features of the productive structure in Latin America is the lack of high-quality jobs. This phenomenon stems not only from the low creation rate of transformational⁷ enterprises but, mainly, from the disinclination of existing formal enterprises to increase their productivity and employment. Figure 2 illustrates the slow dynamism of the Latin American manufacturing sector. It shows the average size of establishments older than 26 years old as a proportion of their size at birth for a sample of countries in Latin America and in Eastern Europe. Establishments older than 26 years old in Latin America are about 7 times larger than their size at birth whereas in European countries they are about 12 times larger than their size at birth.

The lack of dynamism and job creation in formal enterprises has significant costs in terms of aggregate productivity. Among other things, it condemns large parts of the population to take refuge in subsistence enterprises, typically informal one-person businesses with low productivity. Consequently, taking the workforce from self-employment and informality to jobs at firms that, even at a modest scale, are oriented towards innovation would generate a substantial productive transformation in Latin America.

⁷ When referring to transformational enterprises we do not restrict ourselves to large corporations that shift the technological frontier and promote major innovations in products and processes. We also refer to production units which, although small in scale, are able to generate value.

Figure 2. Size of the manufacturing sector of Latin America versus Eastern Europe^{a/} (mean 2006 and 2010)



a/In Latin America, the averages include data from: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Trinidad and Tobago, Uruguay and Venezuela, RB. In Eastern Europe the averages include data from: Lithuania, Slovakia, Slovenia, Estonia, and Croatia.

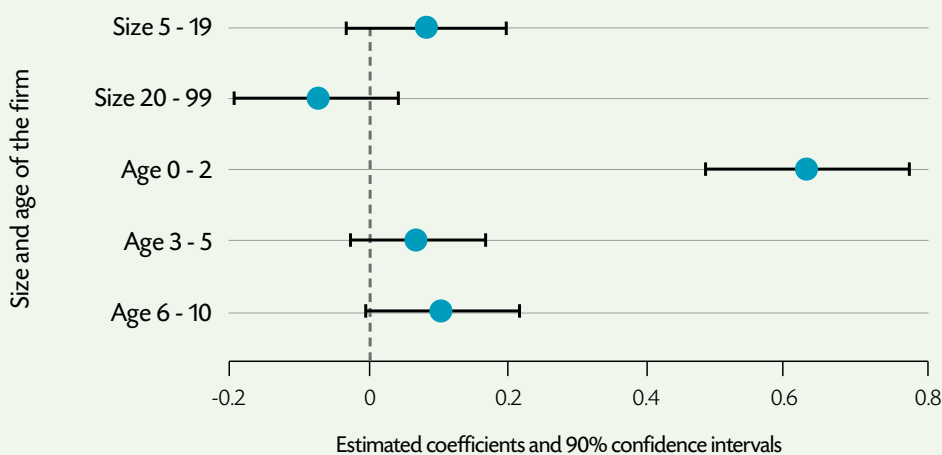
Source: Chapter 4. RED 2013.

Designing public policies that promote this transformation requires a clear understanding of the origin and nature of firm-level productivity. The CAF Economics and Development Report 2013 address just this, among other things.

One of the questions addressed by the report is how the size and the age of a firm impact are related to its ability to create jobs. On one side, small firms tend to boast a higher growth rate than large firms. On the other side, young firms grow more quickly than old ones.

Since young firms are typically smaller than old firms, it is not clear whether size or age is actually associated with higher employment growth. Figure 3 summarizes an exercise that explores whether smaller firms maintain their employment growth differential with respect to larger ones, after controlling for age. The graph shows each estimated coefficient and a confidence interval. When this confidence interval includes zero, it means that the coefficient is not statistically different from zero. The results suggest that, after

Figure 3. Growth: size versus age (2006-2011)^{a/ b/}



a/It refers to the growth of the number of permanent workers in a company calculated according to Davis, S.J., Haltiwanger, J. y Schuh, S. (1996). Small business and job creation: dissecting the myth and reassessing the facts. *Small Business Economics*, 8(4), 297-315.

b/ The countries in the sample are: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Trinidad and Tobago, Uruguay and Venezuela.

Source: Chapter 4. RED 2013.

controlling for age, small enterprises do not grow more quickly than larger ones. Thus, it is the youth of the firm that is associated with greater dynamism.

The report also shows there is a high heterogeneity of growth rates even within young firms. This could be associated, among other factors, with the characteristics of those who manage and/or fund these firms. Indeed, the report highlights that behind a dynamic quality enterprise, there is an entrepreneur with the appropriate skills, experience, right motives, and accurate perceptions. For example, among the reasons given for starting a new business, two were positively associated with the business's size ("making more money" and "improving an existing product or service") whereas two were negatively associated ("working from home" and "difficulties in finding suitable employment").

Regarding how previous work experience affects the creation and the characteristics of new businesses, the report found that over 30% of entrepreneurs in Latin America⁸ emerge from spin-offs, that is, capitalize on ideas, resources, knowledge, or contacts from another firm. Moreover, the report found that spin-offs are 7 percentage points more likely to become employers (as opposed to self-employer) and, among employers, 13 percentage points more likely to have 5 or more employees.

In addition to these factors, which are internal to the firm⁹, the environment or "entrepreneurial ecosystem" also affects the development of enterprises. Unfortunately, Latin America has a series of features that discourage firm innovation and transformation. For example, firms not only find it hard to innovate and implement certain management

practices due to lack of high-skilled labor, but also, even if they innovate, they face impediments to fully exploit the gains from their growth because of poor trade infrastructure. Attacking these problems requires major reforms that, among other things, improve how factor markets operate and promote a more competitive environment that facilitates the timely exit of inefficient firms and the development of firms with potential. This is perhaps one of the most complex steps, but also an unavoidable one, on the path to the productive transformation of Latin America. ■

⁸ The results come from the ECAF 2012 Survey in 17 cities in the region (Buenos Aires, Cordoba, La Paz, Santa Cruz, San Paulo, Rio de Janeiro, Bogota, Medellin, Quito, Guayaquil, Panama City, Lima, Arequipa, Montevideo, Salto, Caracas, Maracaibo) and in the city of Los Angeles (US).

⁹ In Chapter 4 of RED 2013 we show the influence of other internal factors, such as management practices and innovation, on the characteristics and performance of firms.

Policies for entrepreneurship , employment, and productivity

The problem of productivity in Latin America comes down to strengthening at the same time the employability of the workforce and the job-creating ability of firms. On one side, many teenagers choose to drop out from school and join the informal workforce, often creating their own businesses, because their prospects of getting quality formal employment are very low. Unfortunately, when making that decision, they slowly lose the skills that a good job requires. On the other side, poor growth among new and existing enterprises results not only from poor access to finance and technology and other restrictions, but also from the limited capabilities of the available workers, both in terms of technical skills and in terms of basic work habits (following directives, meeting deadlines, etc.). As

a consequence, the region finds itself in an informality and low-productivity trap: firms do not grow much because, among other things, workers are poorly skilled; and, at the same time, workers are poorly skilled because there are not enough transformational firms generating the kind of job opportunities that would discourage informal micro-entrepreneurship.

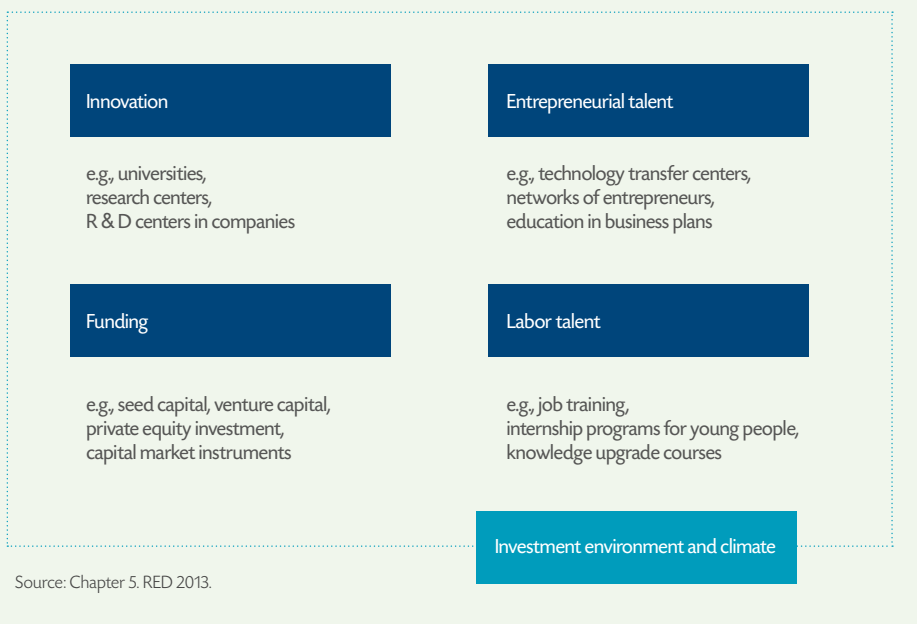
Latin America is thus plagued by micro-enterprises that do not provide opportunities for economic and social progress. Only a quarter of those micro-entrepreneurs have family and personal characteristics similar to those of entrepreneurs capable of employing other people, growing, and becoming more productive. The rest resembles salaried employees so that, for many of

them, having a formal job would probably be a better option. Some of the reasons why job-creating firms, both young and old, grow slowly in Latin America in comparison with developed countries include fewer opportunities for management training, low access to capital, and a low-skilled workforce –all of which, directly or indirectly, increases production costs and undermines the scale of operations that firms find suitable for their businesses.

To promote productive and sustainable entrepreneurship, public policy should have a multidimensional approach and, as illustrated in Figure 4, should integrate entrepreneurial talent, labor talent, innovation, and financing. The history of some global entrepreneurship landmarks, such as Silicon Valley and the technology corridor in Massachusetts in the United States, Israel, Singapore, Taiwan, and Ireland, shows that the public sector can play a significant role in creating an environment favorable to entrepreneurship in a variety of ways: from improving the environment for business creation to supporting innovation with targeted policies.

Entrepreneurial development policies must be accessible to all enterprises with growth potential, which may require innovation in the selection of the beneficiaries –for example, selecting them according to age rather than size. Moreover, policy-makers should recognize the social nature of those policies oriented toward subsistence micro-enterprises, the growth potential of which is much lower, calling for a holistic approach that targets the whole family rather than just the economic activity of the head of the household. Furthermore, employa-

Figure 4. The support system for productive entrepreneurship



bility should be a key objective, and it could be bolstered with programs targeting the transition from school to the labor market, such as first-job initiatives, internship programs, and training programs attending to the demand of productive sectors.

There is no guarantee that the most talented individuals in society will engage in socially productive activities: they could also engage in rent seeking. It will all depend on their incentives because, above and beyond their regard for collective welfare, people usually make their occupational choices prioritizing their own welfare (Baumol, 1990 and 2010; Murphy et al., 1991)¹⁰. These incentives will be determined, to a large

extent, by the productive and institutional regulatory environment in which productive activity takes place. An economy without a favorable environment for productive entrepreneurship (i.e., a legal and regulatory framework that facilitates the creation of enterprises, arbitration services, among other factors) will fail to generate more and better enterprises through public policy.

Summing up, there is a lot of room for public policy to improve the productivity of Latin American economies. The completion of certain missing markets and the access to financial services can be important for the creation and growth of quality enterprises. This is also true for enterprises across the full

spectrum, from those whose full potential is to create a few quality jobs for the local market, to those who can compete in international markets at a much larger scale. Policies, moreover, need to also consider the importance of programs that stop the leakage of young adults from the education system to the informal sector, not only for the sake of social inclusion, but also in the interest of growth and the productivity of the formal sector. ■

¹⁰ Baumol, W. (1990). Entrepreneurship: Productive, Unproductive, and Destructive. *Journal of Political Economy*, 98(5), 893-921.
 Baumol, W. (2010). *The Microtheory of Innovative Entrepreneurship*. Princeton: Princeton University Press.
 Murphy, K., Shleifer, A. y Vishny, R. (1991). The Allocation of Talent: Implications for Growth. (NBER Working Papers N°3530). Cambridge: National Bureau of Economic Research.

CAF 2012 Survey The entrepreneur's personality

Apart from certain socioeconomic and demographic characteristics, there are psychological traits that distinguish not only the individuals who decide to realize a business idea from those who do not, but also some entrepreneurs from others. This article uses data from the ECAF 2012¹¹ to analyze whether there are psychological characteristics that distinguish entrepreneurs from non-entrepreneurs in Latin America and if these same traits are associated with the size and success of their businesses.

The left panel of Figure 5 shows how certain indicators of psychological traits are associated with the probability to be an entrepreneur (be it an employer or a self-employed), controlling for other demographic and socioe-

conomic characteristics. The results show that entrepreneurs stand out for having greater need for achievement and risk tolerance than non-entrepreneurs. Other psychological traits, such as autonomy, internal locus of control, innovation and creativity, self-efficacy and multi-tasking ability, are not significantly different between entrepreneurs and non-entrepreneurs.

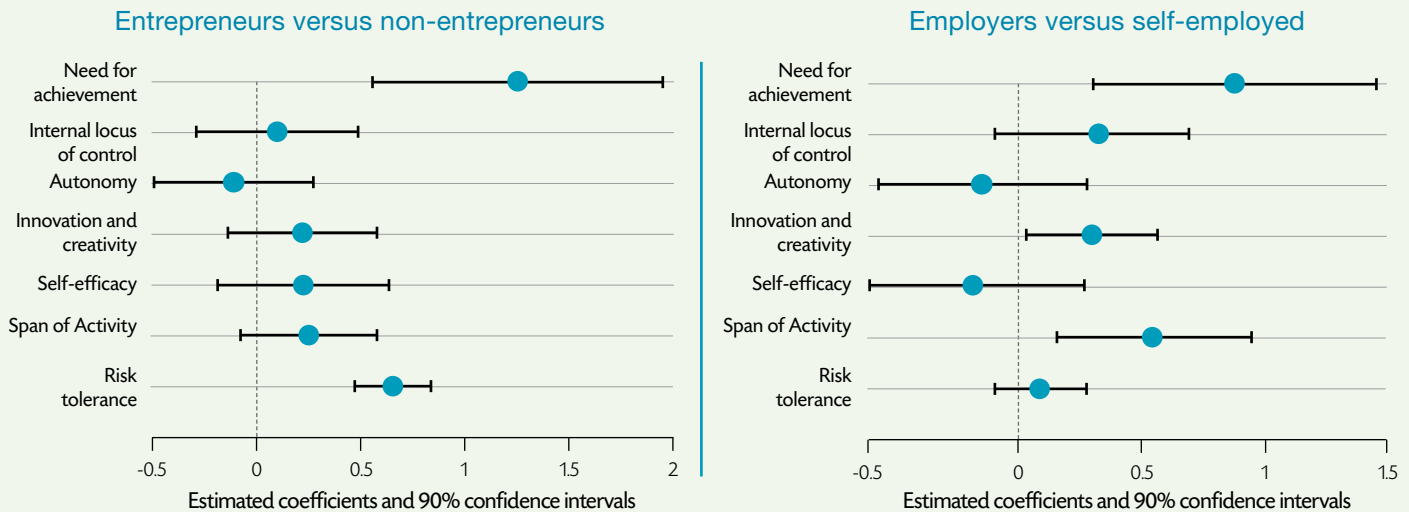
The right panel of Figure 5, considering only entrepreneurs, shows which of these features are associated with better performance—proxied by the ability to create jobs—and thus with greater entrepreneurial potential, also controlling for other relevant characteristics. The results indicate that within the set of entrepreneurs, those with higher need for achievement, innovation and

creativity, and multi-task ability, which in part may reflect their managerial ability, are more likely to manage larger companies and to have employees. Other relevant psychological traits for becoming an entrepreneur, such as the willingness to take risks, are not significantly different between the entrepreneurs who employ other workers and the entrepreneurs who are self-employed.

In summary, this evidence suggests that some traits and skills could characterize individuals who have a greater inclination for entrepreneurship and, among them, those who have more potential to grow. In particular, having high need for achievement and risk tolerance may influence an individual's decision to become an entrepreneur, but other features, such as managerial skills and the ability to innovate, will help him attain business growth. ■

11 ECAF 2012 includes a special module for measuring the presence of certain personality characteristics of individuals that are usually associated with a greater inclination towards entrepreneurship.

Figure 5. Psychological traits and probability of becoming an entrepreneur in selected cities of Latin America and the U.S.^{a/ b/} (2012)



a/ The graphs report the coefficients and confidence intervals at 90% estimated by ordinary least squares (OLS). On the left graph, the dependent variable is a binary variable that takes the value 1 if the individual is an entrepreneur (be it an employer or a self-employed worker) and 0 if the individual is a non-entrepreneur (salaried worker). On the right graph, the dependent variable is a binary variable that takes the value 1 if the individual is an employer and 0 if the individual is self-employed. Regressions were controlled for gender, age, educational level, marital status, number of household members, presence of children under 5 years old, educational level of parents, the fact that a parent has been an entrepreneur, the family wealth level when the individual was under 18 years old (measured by holding at least one property owned by their parents) and the city of residence.

b/ Buenos Aires, Cordoba, La Paz, Santa Cruz, Sao Paulo, Rio de Janeiro, Bogota, Medellin, Quito, Guayaquil, Panama City, Lima, Arequipa, Montevideo, Salto, Caracas, Maracaibo and Los Angeles.

Source: Chapter 2. RED 2013.

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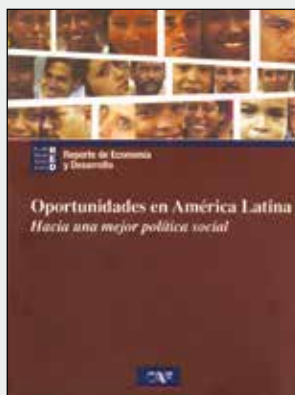
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