

The Size of “Large” Firms

The largest firms in Latin America are small by world standards, even among the developing countries. This chapter will explore what this can tell us about the obstacles to business development in the region.

Why are we interested in the size of large firms? It would be preferable to make an international comparison of all businesses in the various countries, not merely the largest. There is no information that would make such comparisons possible, but if it did exist, the analytical and statistical difficulties would make it necessary to limit the analysis to some subgroup of companies. Limiting the analysis to the largest firms in each country is illustrative because presumably these companies are at the outer edge of the possibilities of development offered them by the milieu in which they operate. Their size may be limited by factors that also affect companies of other sizes. This does not mean that large companies are preferable, or that they are necessarily more efficient or productive. Nor does it entail ignoring that some countries can be competitive with companies that are smaller than those in other countries.¹ It simply means that the analysis assumes that for some sectors or activities, size is beneficial in terms of economies of scale or diversification, access to markets, inputs, information, power, or for any number of other reasons.

The objective of the analysis is to identify which factors limit the growth possibilities of large firms, which may also affect firms of other sizes. It should be noted that the severity of the problems affecting companies varies much more from one country to another than within the same country, as discussed in the previous chapter. Hence, although comparative indicators can be obtained only for the largest companies in each country, analyzing them is relevant for understanding the factors that affect companies of other sizes.

To determine the size of large companies in Latin America in comparison with those elsewhere in the world, information was used from 52 countries, 33 of them in the developing world.² The largest firms in Latin America are very small in comparison with other regions in the world. Among seven regions, Latin America comes in last in average size in terms of total assets of the countries' 25 largest companies. The sample includes 13 countries in Latin America with rather heterogeneous conditions, ranging from Brazil to Mexico, Honduras and Guatemala (see Figure 3.1). Countries from other regions included in the sample were those with greater business development, and not necessarily those most representative of the regions.³ Still, large companies in Latin America are significantly smaller than those in the developed countries and in developing countries as a whole (see Table 3.1).

The small size of Latin American companies is evident in both the nonfinancial and financial sectors. The distinction is important not only because of the different nature of the two types of firms, but because a high

¹ For example, Taiwan has been very dynamic on the basis of companies that are small by the standards of other successful Asian countries. Nevertheless, Amsden (2000, p. 201) reports that Taiwan also ranked high in its share of big businesses, with many more entries on the list of the world's largest firms than Argentina, Mexico or Brazil, which have larger populations.

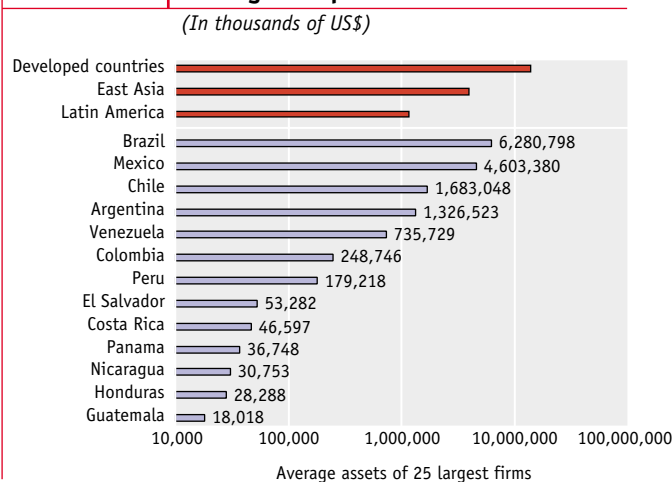
² The information comes primarily from WorldScope, which includes financial data on over 22,000 open companies from all regions of the world. It is complemented with data on the largest companies in Central America, published by *América Economía* (not all companies in Central America are traded on the exchange). The measurement unit is the company, and hence conglomerates are not included. For more detail, see Lora, Cortés and Herrera (2001).

³ This is especially important in the case of Africa, where the countries considered (Morocco and South Africa) have substantially higher income levels than the regional average.

percentage of the largest firms included in the sample are financial entities (44 percent), most in the developed world (82 percent). However, Latin America is in last place among all regions of the world in terms of the size of both its financial and nonfinancial entities, with significant size differences in comparison with both developed and developing countries. Because the development of the financial sectors depends largely on conditions specific to this sector (see Part II of this Report), the rest of this chapter focuses on nonfinancial companies.

The small size of Latin American companies is not simply a reflection of the size of the economies (see Table 3.1). As a proportion of the size of the economies, the largest companies in Latin America are still among the smallest in the world with statistically significant differences in relation to the developed countries and to developing countries as a whole. Similar conclusions are reached if the comparisons are based on the employment generated as a proportion of the working age population. The low employment generation of large Latin American countries can also be seen in ratios between employment and assets. Given the relative abundance of the labor factor, one would expect greater ratios between employment and assets than in the developed countries. What is found, however, is ratios that are slightly smaller than in those countries

Figure 3.1 Regional Comparison of the Size of Large Companies



Source: IDB calculations based on WorldScope and *América Economía*.
Note: In some countries, the database includes less than 25 firms.

and substantially lower than in the average of the developing countries (although the differences are not statistically significant).

By contrast, large companies in Latin America are *not* small in the amounts of capital and reserves for the size of the economies. The implication is that large Latin American companies are very little leveraged, inasmuch as they mobilize few total assets for the capital they

Table 3.1 Size of Businesses in Latin America

| Under the following criteria: | Are Latin American firms smaller than: | | | |
|----------------------------------|--|------|---|------|
| | In the developed countries? Yes/No In what %? | | In the other developing countries? Yes/No In what %? | |
| Real and financial firms | | | | |
| Total assets | Yes *** | 98.4 | Yes ** | 82.4 |
| Financial firms | | | | |
| Total assets | Yes *** | 95.6 | Yes * | 69.3 |
| Real firms | | | | |
| Total assets | Yes *** | 96.1 | Yes ** | 70.8 |
| Assets/GDP | Yes ** | 57.8 | Yes * | 55.4 |
| Employees/Working age population | Yes *** | 91.9 | No | - |
| Employees/Assets | No | - | Yes ** | 56.9 |
| Capital/GDP | No | - | No | - |
| Assets/Capital | Yes | 37.2 | No | - |
| Capital | Yes | 69.3 | No | - |
| Employees | Yes *** | 81.9 | No | - |

* Significant at the 10% level.

** Significant at the 5% level.

*** Significant at the 1% level.

possess. Thus, in effect, Latin America is the region with the lowest level of leveraging, with differences that are significant with respect to the developed countries (although not with respect to the other developing countries as a whole).

In short, with respect to other regions in the world, the large Latin American companies in the non-financial sectors mobilize few assets and generate little employment, even though their levels of capital are normal. It may thus be asked what determines the size of companies?

Factors that Affect the Size of Companies

What factors may limit the size of companies? Although this has been a central issue in economic theory since the time of Adam Smith, very few studies have taken up this question empirically on an international level, and those that have done so have focused on comparisons between the developed countries (Kumar, Rajan and Zingales, 1999). This section provides a brief theoretical review of the main variables that will be used in the empirical analysis in the subsequent section. The analysis is limited to macro determinants of firm size, largely leaving aside micro or sector determinants that may differentially affect companies in different sectors (such as specific technological or organizational characteristics).

Demand Factors

The macro determinants that limit the size of companies may be conveniently classified into demand, supply and institutional environment factors. In *The Wealth of Nations*, Adam Smith argued that the division of labor depends on the size of the market. Because specialization incurs fixed costs such as physical investment and learning, it is to be expected that the size of the market will be reflected in the size of companies. However, the fact that there are fixed specialization costs does not mean that unit costs will drop indefinitely. The size of the company can be limited at some point by limitations in the supply of some factor or by growing coordination or supervision costs within the company (Becker and Murphy, 1992; Rosen, 1982). Hence

whether or not company size increases in proportion to the size of the market is an empirical question.

What constitutes the size of the market is also an empirical question. Because the income elasticity of demand is typically low for mass consumption goods and high for luxury goods, two economies of equal size but different per capita income levels represent markets of very different sizes for companies offering one type of good or another. To this should be added that mass consumption is concentrated on a few goods, whereas luxury consumption tends to be spread over a broad range of goods and services. Hence, the size of companies must depend not only on the size of the economy, but also on the per capita income level (presumably inversely).⁴ Nevertheless, per capita income is also an indicator of the quality of productive resources, whose relationship to the size of companies should be positive.

Moreover, depending on communication and transportation possibilities and on the existence of trade barriers, companies can have a local, national or global market for their goods. Especially in the case of larger companies, it could be expected that their possibilities for expansion would depend on the country's access to world markets (measured, for example, as the coefficient of the country's trade penetration—i.e., exports and imports as a percentage of GDP—or the size of the economies with which the country has free trade agreements).

Supply Factors

Inasmuch as at least some sectors enjoy economies of scale up to very high production levels,⁵ and given the decline in international transportation costs and other barriers to trade throughout the world,⁶ differences in the size of companies cannot be explained only by demand factors. Limitations in the supply of productive

⁴ Patterns of luxury consumption also lead to differential quality by product. Nevertheless, this type of differentiation does not necessarily affect firm size, because although it can reduce the scale of production of each differentiated product it can create economies of scope by jointly producing a number of related goods.

⁵ This is especially true for mining and basic raw material processing industries, which are relevant for developing countries, as well as for sophisticated industries, such as autos, where profitable scales tend to be above the markets of developing countries.

⁶ See Chapter 11.

resources such as financing, infrastructure and human capital, to mention the more important ones, may also be decisive.

As expressed by business communities in the region, the supply of credit is one of the factors that most constrain the development of Latin American businesses. Although differences are much greater between countries than by firm size within each country, access to financial markets is differentiated for firms of different sizes and according to their ownership and control structure. Given the globalization of financial markets, larger firms might have advantages over smaller-sized competitors when facing national financial restrictions. Therefore it is open to empirical debate whether low development of financing is a constraint to the development of larger companies, and to what degree.

Latin American business communities do not perceive deficiencies in infrastructure to be a major constraint to business development. This is a surprising finding that does not seem consistent with the results of various empirical studies that have found infrastructure to have a significant impact on aggregate productivity and growth (Easterly-Rebelo, 1993; Canning, Fay and Perotti, 1994; Canning and Pedroni, 1999; and Sánchez-Robles, 1998). The explanation of this apparent inconsistency may simply be an observation bias: the only opinions that can be known are those of companies that exist, not those of companies that were unable to survive or that never existed, perhaps because of deficiencies in infrastructure. The empirical results that we will present fully bear out this interpretation.

The availability and quality of human resources may have a great influence on the size of firms, but on the basis of theory it cannot be easily predicted whether greater levels of human capital lead to larger or smaller companies. According to Lucas (1978), shortage of management talent (or of any other critical human resource) may bring about the organization of larger productive units to better utilize this scarce resource. If capital and labor are imperfect substitutes, the average wages of workers will tend to be greater when capital increases. If management ability is distributed in the usual manner, this will tend to heighten the relative shortage of managers, because those who have less pronounced management abilities will prefer to be employees. If management talent is not reproducible, firms will be larger in size to the extent that their countries have

more capital. Therefore, the relative shortage of a critical human resource leads to companies that are larger insofar as the wealth of the economy increases.

Nevertheless, it can also be argued theoretically that companies are larger when qualified human resources are more abundant. Greater qualification makes it possible to successfully perform more complex tasks, and therefore allows companies to use technologies that demand larger and more complicated processes. According to Kremer (1993), there is a positive correlation between the number of tasks and the number of workers by firm, which must mean that countries with more human capital will specialize in more complex goods and have larger companies. However, workers with more education can use more flexible technologies that make production on smaller scales possible. These workers may be better able to take responsibility for more creative activities that require greater motivation and are attained better in smaller units (Brynjolfsson, 1994).

Institutional Factors

The environment in which a firm operates can have a great influence on its size. The ways through which the supply and demand factors considered above influence size are basically technological, since they primarily involve characteristics of production functions. But these production scale factors are not sufficient to explain firm size. In principle, every firm has the option to produce internally or to buy from a provider any of its inputs or stages in its production process. Firm size accordingly must be affected not only by the production process, but also by the factors that may influence the decision to buy or produce. Different theories suggest the importance of institutional factors in this decision.⁷ An uncertain legal environment should lead to larger firms: the firm replaces the market, because contracts outside the firm become riskier. On the other hand, the legal environment can offer different protection to different types of assets or rights over the firm. From a legal standpoint, physical assets are easier to protect than intangible assets, such as trademarks or knowledge. The rights of the owners of a limited company can be better protected legally than the rights of shareholders, and depending on legislation, the rights of bank

⁷ See Kumar, Rajan and Zingales (1999).

creditors may or may not be protected vis-à-vis conflicts with shareholders, workers or the government. Hence, the institutions that protect contracts and property rights may have an influence on the size of firms and on the kinds of firms best able to develop.

Other aspects of the institutional environment may also affect firm size. Tax and regulatory loads tend to favor small firms, which can evade monitoring. But they also grant relative advantages to larger firms, because their size enables them to more easily absorb the fixed costs represented by regulation and opens them up to the possibility of influencing government decisions and application of the rules.

Finally, the informal rules of interpersonal cooperation may also influence firm size. Fukuyama (1996) has argued that societies with greater social capital, where trust and the spirit of cooperation between individuals is greater, favor the development of larger companies, because the cost of coordinating and supervising employees within firms tends to be less. Although some analysts have found evidence to support this hypothesis,⁸ another argument is that social capital facilitates relationships outside the firm, and therefore fosters purchasing instead of producing.

Empirical Results

An econometric analysis corroborates the importance of several of these factors to the size of companies. The analysis is based on the size (in total assets) of the 25 largest companies of 52 countries at different levels of development.⁹ The main conclusions are summarized below.¹⁰

Market Size

The size of the economy where companies operate has a great influence on firm size. Nevertheless, the relationship is not exactly proportional: if one economy is double the size of another it will tend to have companies 80 percent larger, thereby indicating increased organization and coordination costs for large companies, and more generally diseconomies of scale.

As has been mentioned, per capita income could be interpreted as an indicator either of diversification of demand or a measure of the abundance, quality and variety of factors of production. In the first case, one

would expect a negative relationship with company size, and in the second a positive relation. Econometric results tend to support this latter interpretation. (This is also consistent with the fact that the significance of this variable disappears when alternative measurements of the availability of factors of production, such as infrastructure quality, are included.)

For large companies, development possibilities may go beyond national borders. Therefore, countries with greater trade penetration (i.e., the ratio between exports and GDP or between exports and imports and GDP) should be expected to have larger companies. No statistically solid effect is found, however. The same is true of other alternative measurements of access to world markets, such as the size of the combined market to which each country can have access without tariff restrictions by virtue of free trade treaties, or geographic variables of access to markets, such as the distance to the great world economic centers, the percentage of the population in each country located less than 100 kilometers from the coast, and access to the sea. None of these variables seems to influence the size of large firms.

In short, from the standpoint of demand limitations, the size of the domestic market seems to be the fundamental variable. Although this finding is intuitively obvious, it is still surprising because the analysis is limited to the 25 largest companies in each country, which would have a better chance to be integrated into global markets. These findings do not change when the regressions are limited to the developed countries or to large companies in industrial sectors, which tend to be regarded internationally as tradables.

It is important to point out that the variables of market size do not thoroughly explain why Latin American companies are so small. By these findings, the size of the large companies in the region is at least one-third smaller than might be expected from world patterns.

Access to Factors of Production

The explanation for the small size of Latin American companies is to be found in the availability of and access to

⁸ See La Porta et al. (1997).

⁹ The size of the sample is smaller in some of the regressions due to gaps in information on explanatory variables. See Appendix Table 3.1.

¹⁰ The regression results are presented in Appendix Table 3.1. A broader set of regressions is found in Lora, Cortés and Herrera (2001).

factors of production, particularly credit and infrastructure. The financial depth (measured as the ratio between total credit to the private sector and the GDP) is a very robust determinant of the size of large companies. Given the estimated coefficients, an increase of the standard deviation in the financial depth of a country (which equals 46 percent of GDP) is associated with an increase of between 26 percent and 44 percent in the size of its large companies.¹¹ The magnitude of this effect is surprising because presumably large companies would have better possibilities of having access not only to domestic but also to international financial markets.¹² Consequently, it is to be expected that the effects will be even more pronounced for medium-sized and small companies.

The quality of infrastructure is another domestic factor that has an enormous influence on the development possibilities of companies. To measure infrastructure quality, a subjective index provided by *The Global Competitiveness Report* for 2000 was used.¹³ The index is a combined measurement that correlates very well with the various objective indicators of different kinds of infrastructure.¹⁴ The estimated coefficient is quite stable and indicates a very important effect of infrastructure: an improvement of the index in a standard deviation (1.4) is associated with an increase of approximately 50 to 75 percent in the size of large companies.

Consequently, the supply of financial resources and the availability of infrastructure are decisive factors for the size of large companies around the world, and they presumably also affect the development possibilities of other companies. Together with the size of the economy, these variables explain 85 percent of differences in the average size of large companies. Once these variables are considered, the small size of Latin American companies ceases to be a mystery. In fact, the econometric results show that given the precariousness of the financing and infrastructure development of the region, the size of large companies is somewhat greater than might be expected.

The influence of the availability of human capital is not so easy to discern. In the estimations, the average education of the labor force is found to have a positive effect on the size of companies, a finding that would support the hypothesis of Kremer, according to which greater levels of education go hand in hand with more complex processes and larger firms. Nevertheless, the coefficient is not significant and is not robust to alternative specifications. The results are weaker with

other measurements of human capital, such as proportions of the population by education levels. Nor was the ease with which companies access the labor market (which can be measured by *The Global Competitiveness Report* index) found to have an influence on company size. As has been pointed out, the influence of regulation on the size of companies is ambiguous. Labor regulation tends to have a greater effect on larger companies, which tend to be more monitored. On the other hand, more rigid labor legislation can offer large companies a competitive advantage over medium-size ones, since some rules are less restrictive for them than for medium-size companies. For example, the imposition of minimum wages has less of an impact on large companies, which tend to operate with more highly qualified staff and pay higher salaries for reasons of efficiency. Larger companies may use more capital-intensive technologies, so a relative tightening of labor favors them over medium-size companies.¹⁵ Finally, larger companies may have more possibilities than other firms to influence legislation and how it is applied. Our findings suggest that these factors may be important, since labor laws that constrain the hiring and firing of workers are statistically associated with larger companies. Nevertheless, this relationship is not significant. Nor did we find significant results with alternative indicators of the quality of labor legislation.¹⁶

Institutional Variables

The institutional environment in which companies operate is determined by political stability, efficacy, com-

¹¹ Because this elasticity comes from cross-sectional regressions for countries with very different conditions, it should be interpreted as the long-term equilibrium effect.

¹² Access of countries to international financing does not seem to have an additional influence on the size of companies.

¹³ The index ranges between one and seven, where the largest values represent the highest ranking.

¹⁴ The simple correlations calculated are 0.83 with phone lines per 1,000 inhabitants, 0.80 with personal computers per 1,000 inhabitants, -0.59 with losses in transmission and distribution of electric power (as a percent of electricity production), and 0.54 with the percentage of roads that are paved.

¹⁵ Milgron and Roberts (1992) review the literature on the influence of these variables on company performance.

¹⁶ We are using the labor security index (Heckman and Pagés-Serra, 2000) and information from the World Bank's World Business Environment Survey about the level of state intervention in wage and hiring decisions and on labor regulation as an obstacle to firm growth.

pliance with the law, effectiveness of governance, control over corruption, and the quality of the regulatory framework. All these dimensions of institutional quality have been measured in the studies by Kaufmann, Kraay and Zoido-Lobaton already cited (1999a and b). None of these variables appears to have *direct* influence on the size of companies,¹⁷ but there are very powerful channels of *indirect* influence through the variables of financial depth and infrastructure quality. The rule of law, which measures respect for rules and consequently the ability of economic agents to operate in an atmosphere of known, stable and accepted rules, is particularly influential on these two variables.¹⁸ Finally, contrary to the evidence of studies already cited, our economic findings do not support the hypothesis that social capital is decisive for the size of large companies. As additional measurements of the environment in which firms operate, different variables of a macroeconomic nature, such as control over inflation, stability of growth, interest rates, or exchange rates, could be taken into account. However, there is no evidence that these variables directly influence firm size (although they may do so indirectly).

In short, the size of the domestic market, financial depth, and the quality of infrastructure are the most important variables that statistically explain the differences in the size of large companies, and that help to understand why Latin American companies are so small.

It is important to point out that these results are not influenced by the number and type of companies surveyed in each country. The results are based on the 25 largest companies in each country simply because this number allows for better utilization of information available for the developing countries. The findings are very similar (although less statistically reliable) when the same procedure is applied to larger or smaller numbers of firms for which information is available. The findings described are based on average sizes of non-financial companies, without controlling for possible differences between one sector and another.¹⁹ We have also proven that the results are not affected by this fact. Finally, inasmuch as our size averages come from a mix of manufacturing and service companies that produce goods of a different nature, we limit the exercise to manufacturing companies. The findings show that the significance and approximate magnitude of the coefficients of the relevant variables is maintained. In conclusion, various robust runs show that the variables identified as explanatory maintain their influence.

Table 3.2 Effects of Gaps in Infrastructure and Financial Depth on the Size of Businesses

(In percent)

| Country | If gap were closed, firm size would increase by: | |
|-------------|---|-----------------------|
| | Infrastructure | Financial development |
| Argentina | 0.0 | 29.1 |
| Brazil | 5.8 | 22.2 |
| Chile | 0.0 | 0.0 |
| Colombia | 55.6 | 17.7 |
| Costa Rica | 48.4 | 31.3 |
| El Salvador | 39.6 | 0.0 |
| Guatemala | 18.9 | 31.8 |
| Honduras | 52.9 | 21.1 |
| Mexico | 0.0 | 30.3 |
| Nicaragua | 74.3 | 15.0 |
| Panama | 19.4 | 0.0 |
| Peru | 24.4 | 28.9 |
| Venezuela | 6.6 | 35.5 |

Notes: Infrastructure gaps are calculated with respect to Chile, Argentina and Mexico. Financial depth gaps are calculated with respect to Chile, Panama and El Salvador. Simulations are based on regression 4 of Appendix Table 3.1.

The econometric results described in this chapter can be used to analyze the potential impact of better access to financial resources and improved infrastructure on business development. The size of large companies in the Latin American countries in terms of their assets is only 8 percent of that of companies in the developed countries (see Figure 3.1). Some 58 percent of the difference in size is due to the fact that the economies of the developed countries are larger; 31 percent to deficiencies in infrastructure quality; and 11 percent to the lack of financial depth of Latin American economies. Naturally, these comparisons may not be rel-

¹⁷ Appendix Table 3.1 presents only one regression, which uses as an explanatory variable the *average* of those indicators. The complete regressions are found in Lora, Cortés and Herrera (2001).

¹⁸ The simple correlations between the rule of law and financial depth and infrastructure quality are 0.68 and 0.82, respectively, thereby suggesting the importance of this indirect influence.

¹⁹ Whether there should be prior control by sector to compare the average size of firms between countries is open to question. The argument is that there are technological, scale and organizational differences specific to each sector that influence the size of firms. However, the counter-argument is that when the objective is to compare the average size of all large firms between countries, and not those of each sector in particular, such a control would undermine the result, because the fact that the firms develop in certain sectors and not in others may be precisely the result of macro factors.

evant, given the great differences in development between the two groups of countries. Hence, it may be illustrative to consider the effects of gaps in infrastructure and financial depth between different countries in the region. Table 3.2 presents the effects on the size of large companies caused by gaps in infrastructure quality of the various countries in comparison to the average of the three best countries in the region (Argentina, Chile and Mexico). In countries most affected by infrastructure deficiencies, such as Nicaragua, Colombia and Honduras, the size of the large companies could increase by 50 percent or more if those gaps were closed. The table also presents the effect of gaps in financial depth (in this instance the best cases are Chile, El Salvador and Panama). The effects are less pronounced, but they

would still represent 30 percent of the current size of large companies in several countries. Although these calculations should not be interpreted as exact simulations, they do suggest the major importance that greater development of financing and infrastructure might have on business development in some countries in the region. The analysis in this chapter has also shown that the access of companies to certain key factors of production determines their development possibilities much more than external factors such as access to international markets or foreign financing. Despite globalization, business development continues to be essentially determined by factors proper to the countries, and that is where governments ought to continue to place emphasis.

Appendix Table 3.1 **Determinants of Real Sector Firm Size**

(Estimates based on averages of the 25 largest firms by country, according to assets)

| Independent variables ¹ | Dependent variable: total assets (log) | | | | | | | |
|---|--|-----------|-----------|------------|------------|------------|------------|-----------|
| | Reg. 1 | Reg. 2 | Reg. 3 | Reg. 4 | Reg. 5 | Reg. 6 | Reg. 7 | Reg. 8 |
| Market size | | | | | | | | |
| GDP (log) | 0.835 | 0.967 | 0.883 | 0.840 | 0.828 | 0.787 | 0.831 | 0.905 |
| standard deviation (sd) = 1.489 | (9.92)*** | (9.30)*** | (8.32)*** | (11.67)*** | (11.42)*** | (10.15)*** | (11.93)*** | (9.26)*** |
| Per capita GDP (log) | 0.630 | 0.441 | 0.427 | | | | | |
| sd = 0.738 | (3.67)*** | (2.32)*** | (2.34)*** | | | | | |
| Trade ratio (Exports plus imports/GDP) | | 0.146 | 0.077 | | | | | |
| sd = 0.468 | | (2.04)*** | (1.03) | | | | | |
| Access to productive resources | | | | | | | | |
| Financial depth (credit to the private sector/GDP) | | | 0.696 | 0.620 | 0.693 | 0.760 | 0.634 | 0.519 |
| sd = 0.461 | | | (2.29)*** | (2.15)*** | (2.54)*** | (2.60)*** | (2.29)*** | (1.32) |
| Infrastructure quality index (0 - 7) | | | | 0.360 | 0.274 | 0.369 | 0.229 | 0.301 |
| sd = 1.43 | | | | (3.54)*** | (2.35)*** | (3.61)*** | (1.63)** | (2.06)*** |
| Labor force education (Years) | | | | | 0.095 | | | |
| sd = 2.092 | | | | | (1.53)* | | | |
| Labor restriction index (1 - 7) ² | | | | | | -0.163 | | |
| sd = 1.002 | | | | | | (-1.49)* | | |
| Institutional framework | | | | | | | | |
| Institutional quality index (-2.5 - +2.5) | | | | | | | 0.329 | |
| sd = 0.753 | | | | | | | (1.40)* | |
| Trust index (0 - 1) | | | | | | | | 0.310 |
| sd = 0.165 | | | | | | | | (0.24) |
| Dummy for Latin America | -0.515 | -0.330 | -0.194 | 0.046 | 0.227 | 0.350 | 0.045 | 0.068 |
| | (-1.75)** | (-1.10) | (-0.66) | (0.15) | (0.76) | (1.03) | (0.15) | (0.16) |
| R ² | 0.85 | 0.86 | 0.88 | 0.88 | 0.90 | 0.86 | 0.89 | 0.88 |
| No. of observations | 52 | 52 | 52 | 52 | 49 | 46 | 52 | 40 |

Notes: In some countries, the database includes less than 25 firms; t-statistics in parentheses.

¹ All regressions include a constant not reported in the table.

² Higher index means less restrictions.

* Significant at the 10% level.

** Significant at the 5% level.

*** Significant at the 1% level.

sd= standard deviation.