The Cornerstones of Competitiveness: A Vision for the Americas to 2020

(Discussion Paper prepared for the Annual Meeting of the
Red Interamericana de Competitividad
Atlanta, Georgia, November 14-16, 2010)

prepared by José María Figueres and Augusto López-Claros

This paper presents key elements of a competitiveness strategy for the Americas. It is organized as follows. Section 1 provides an analysis of the global context against which countries are formulating and implementing policies and reforms aimed at boosting productivity and laying the foundations for sustainable growth. What are some of the forces and trends which are determining the broad parameters of the global economic environment and the emerging factors which will best enable countries to thrive in an increasingly complex international marketplace? Section 2 argues that the global economic crisis has created special challenges and opportunities for Latin American and the Caribbean and that the region is well poised to set in motion initiatives aimed at significantly strengthening those factors which could contribute to boost overall levels of competitiveness. Sections 3 provides a conceptual framework to look at the various factors and policies which are essential to strengthen competitiveness, with particular reference to the role of institutions, the regulatory framework, education, the adoption and use of information and communication technologies, as well as the increasingly important questions of gender equity and sustainable management of the environment. Section 4 builds on this framework to ask the question: how competitive are Latin America and the Caribbean, examining closely the region's performance in a number of critically important areas. Finally, section 5 concludes by providing a number of specific recommendations as to the various ways in which RIAC could catalyze the promotion of a competitiveness agenda in the region.

I. The global context

The global economy has been transformed in a number of fundamental ways in the past three decades. Spurred by progress in transport and communication technologies, the process of globalization has led to a remarkable expansion of international trade and has permitted the achievement of important progress in the battle against poverty. The rapid reduction in barriers to the flow of goods and services, capital and labor has not always been orderly and has proceeded at different speeds in different parts of the world but there is little doubt that, to a greater or lesser extent, it has now become a permanent feature of the international economic landscape. Not only has it emerged as an important driver of global economic growth, but greater openness and stronger links with the world economy have imposed on domestic producers everywhere the valuable discipline of international competition and attracted much needed capital and expertise, thus enhancing the prospects for growth.

Alongside the quickening pace of global economic integration, there has been a marked acceleration in the pace of technological and scientific progress. Advances in information technology, in particular, have created new opportunities for businesses against the background of an increasingly complex global economy. Reductions in the cost of communication are facilitating the shift of backroom operations to the developing world. The multinational corporation, already operating with a global outlook as regards the location of its markets and the sources of supply, is also now operating globally in terms of sources of finance and physical location. With reduced transport costs, location is becoming less important and political and economic stability, a well-trained labor force, and strong institutional underpinnings are emerging as the key drivers of competitiveness and prosperity. These developments are also leading an increasing number of governments around the globe to be more assertive in pursuing productivity-enhancing policies.

Harvard professor Richard Cooper makes a compelling case that at the outset of the 21st century technical change and innovation have become "the dominant characteristic" of our time. "New technological ideas," he adds, "combined with social order and the trained human beings who generate and apply them, are the basis for modern economic prosperity." The traditional sources of power and influence—territory, resources, raw manpower, and military might—for centuries the chief determinants of nations' prosperity, are far less important today than they used to be and have given way to a new world in which successful development is increasingly linked to sound policies, to good governance, to effective management of scarce financial resources, and, most important, to the extent to which societies are able to harness the latent capacities of their populations. Successful countries today are not necessarily large geographically or richly endowed with natural resources, nor able to project military power beyond their borders. Increasingly, they are countries that have managed to expand opportunities for their populations through the full exploitation of the opportunities afforded by the world economy through international trade, foreign investment, the adoption of new technologies, macroeconomic stability, and high rates of saving.

The above considerations notwithstanding, the global financial crisis, "by any measure the deepest global recession since the Great Depression,"[1] has highlighted the presence of risks to a scenario that, earlier in the decade, envisaged sustained economic growth and prosperity. The crisis, which got underway in the developed markets, has shown that the advanced economies are not free of the vulnerabilities and rigidities that had come to be recognized as structural features of the developing world. More important, a key lesson to emerge from the financial crisis is that we have global financial markets but no global rule of law. In the past 30 years the global economy has become both more complex and more interconnected, but the mechanisms and institutions that we have to deal with crises have not kept pace with the tempo of change and what has emerged is a "governance gap", an inability to cope with complex global problems either because the institutions we have are woefully unprepared or, in some cases, because we do not even have an institution with relevant jurisdiction and adequate resources to address the problem in question (e.g.,

[1] This is the characterization made by the IMF in its October 2008 *World Economic Outlook*.

climate change). It is becoming increasingly clear that systemic crises cannot be solved outside a framework of global collective actions involving supranational cooperation on a much greater scale than has been the case in the past.

II. Latin America and the economic crisis

The latest forecasts put out by the IMF (issued in April of 2010) for global economic growth are cautiously encouraging. Following a 0.6 percent contraction in 2009 (more brutal in the United States, Europe and Japan, softened by rapid growth in Asia, particularly China and India), world output is expected to expand in 2010 by 4.2 percent and to continue at that pace in 2011. These forecasts assume that interest rates in the advanced economies will remain at near zero levels for the foreseeable future and that public debt levels will rise from 75 percent of GDP in 2008 to some 110 percent of GDP by 2014.

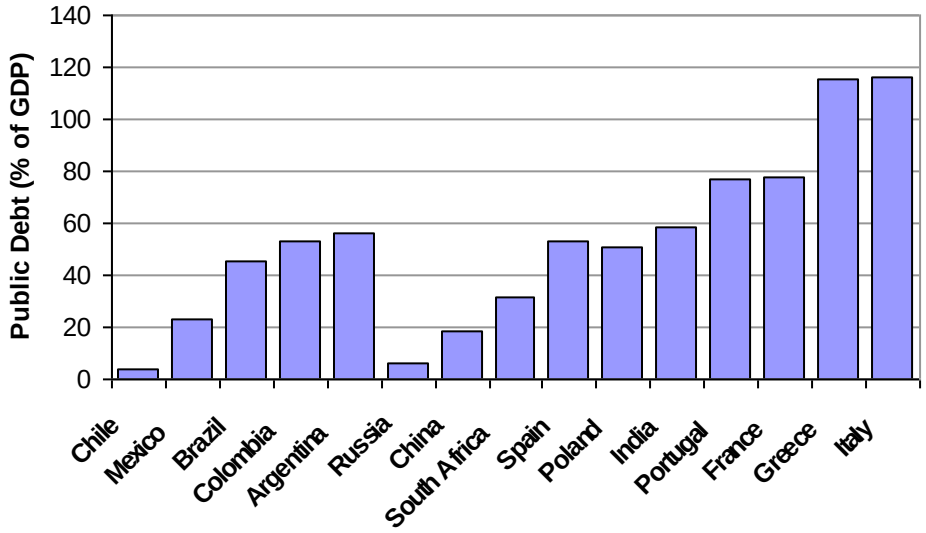
As Table 1 below makes clear, the crisis has been particularly harsh in its consequences for the advanced economies, countries that over the last couple of decades have tended to be islands of relative stability and locomotives of global economic growth. While Latin America and the Caribbean (LAC) have not been unaffected by the crisis, the impact has been more muted. The region's banks were less exposed to the kinds of toxic assets which have wreaked havoc on the financial systems of the industrial world and, with more solid banking sectors, the region was able to cushion better the impact of the credit crunch. Furthermore, in a most interesting development—particularly against the historical background of repeated fiscal crises in many countries in Latin America—its levels of public indebtedness are now lower, on average, than those of many developed nations (Figure 1) . These facts would suggest that beginning in 2010 countries in Latin America and the Caribbean have a unique opportunity to set in motion initiatives aimed at significantly strengthening those factors, policies and institutions which could contribute to boost overall levels of competitiveness.

Table 1. Macroeconomic Outlook (% GDP Growth)

	2009	2010	2011
World Output	-0.6	4.8	4.2
Advanced Economies	-3.2	2.7	2.2
US	-2.6	2.6	2.3
Euro Area	-4.1	1.7	1.5
Japan	-5.2	2.8	1.5
Latin America and Caribbean	-1.7	5.7	4.0
Brazil	-0.2	7.5	4.1
Mexico	-6.5	5.0	3.9
Argentina	0.9	7.5	4.0
Colombia	0.8	4.7	4.6
China	9.1	10.5	9.6
India	5.7	9.7	8.4

Source: World Economic Outlook, IMF, October 2010

Figure 1. Public debt (in % of GDP)



III. A competitiveness profile for LAC

Two questions that suggest themselves immediately are what are those factors which are fundamental to boosting competitiveness in the region and that both theoretical considerations and empirical experience have shown to be primary determinants of productivity and, hence, economic growth? The second question is, given these factors, how do countries in LAC perform, both in relation to each other and against top performers in the world? In this paper we discuss briefly the importance of a range of such factors and then present a competitiveness profile for the region, looking specifically at the regulatory and legal framework, the region's human and environmental capital, the adoption and use of information and communication technologies, and the institutional environment. Rather than merely showing the relative rankings of an established competitiveness index, we instead opt for framing our discussion of competitiveness in the region in terms of 4 key and distinct areas (as noted above), tapping into the latest data available from credible internationally comparable sources. The competitiveness profile is followed by a discussion of ways in which RIAC could better leverage the promotion of a competitiveness agenda for the Americas.

What matters for competitiveness?

A number of observations can be made when examining the factors, policies and institutions that contribute to improve a country's economic performance. The first and perhaps most self-evident is that the factors are many and span several different areas. For example, there already exists considerable empirical literature documenting the central importance of macroeconomic stability for economic growth. There are no known cases of countries—at least during the post-war period, when the existence of a system of national

accounts and the emergence of national statistics has permitted the development of tracking mechanisms—in which high economic growth rates on a sustained basis has taken place against the background of runaway inflation or disorderly management of the public finances. In fact, there is overwhelming evidence that in the *absence* of a solid foundation of macroeconomic stability, growth will be anemic or, at best, volatile. What are, in fact, the key building blocks of competitiveness?

Institutions

There is increasing recognition that a solid foundation of macroeconomic stability *alone* is not sufficient to ensure rapid economic growth. Institutions matter a great deal. By institutions we mean the system of rules that shapes incentives and defines the way economic agents interact in an economy. The institutional framework has a crucial bearing on growth and development. It plays a central role in the ways societies distribute the benefits and bear the costs of development strategies and policies, and it has a bearing on investment decisions and on the organization of production. Of course, laying a sound institutional foundation is not an easy task, nor something whose results can be observed quickly, as is often the case with purely macroeconomic measures, an interest rate hike here, a tax cut there. Attempts at institutional reform often run against strenuous opposition, as such reforms often challenge powerful, deeply entrenched vested interests.

Property rights, for instance, are of central importance. A weak property rights environment discourages investment and creates uncertainties which complicate long-range planning. In developing countries in particular, they hamper the ability of budding entrepreneurs to access the financial system using physical assets as collateral. It is of fundamental importance whether governments are accountable to their respective populations. Investors care enormously whether judges and courts are reasonably independent, or whether they are subject to undue interference or, God forbid, are for sale to the highest bidder. Do businesses have to pay bribes to settle their tax obligations? Do they have to hire private security details because police services are ineffective and unreliable? Do governments show favoritism in their decisions, or are they fairly even-handed in their relations with the business community, playing more the role of impartial formulators of transparent rules? Are public resources being allocated to education and essential infrastructure, or spent on wasteful and unproductive projects or schemes?

Extensive research at the World Bank and elsewhere has shown the central importance of the establishment of an institutional environment characterized by openness and transparency in the management of public resources. Corruption poisons the development process. It leads to resource misallocation as funds are no longer directed toward their most productive ends, but are instead captured for private gain. It undermines the credibility of those who are perceived as being its beneficiaries (e.g., public officials, government ministers, and business leaders) and thus sharply limits their ability to gain public support for economic and other reforms.

Other elements of the institutional environment are also key. For instance, as with property rights, there is a burgeoning literature and a large body of country-specific experience on

the importance of an efficient judicial system. It matters significantly for productivity and competitiveness whether firms are able to resolve legal disputes through a court system that operates transparently, with reasonable speed, and in which decisions are broadly consistent with the letter of the law, as opposed to a system where legal disputes can last a decade, drain huge financial resources, and deliver outcomes reflecting vested interests. In the latter case firms will face a higher cost structure and lose competitiveness vis-à-vis more fortunate competitors operating in friendlier legal environments.

The regulatory framework

Related to the legal environment is the overall regulatory framework and the burdens it can impose on existing businesses and the discouraging effect it can have on the creation of new ones. Freedom to enter markets can make a significant contribution to development—indeed, not an inconsiderable share of the progress made in India and China in the past twenty years reflects a reorientation of policies which significantly relaxed the barriers to entry to goods, labor, and financial markets.

This is perhaps one area where we in Latin America—with the possible exception of Chile—are at our most vulnerable. The picture that emerges from the 2009 *Doing Business Report* published by the World Bank is not a pretty one. The scope of this Report, which now covers 181 countries, has expanded significantly and now, in addition to the usual indicators on opening a new business (number of procedures, time taken, cost) one can also look at such things as: which countries make it easy to pay taxes, or to get licenses, where it is easier or more difficult to enforce contracts, who regulates property registration the most, who provides investors the greatest protection, or has the most restrictive labor legislation making it very difficult, for instance, to adjust the size of the payroll. The sobering irony of this study is that those countries with the greatest need for entrepreneurship and private sector development are those that generally put the greatest obstacles to the creation of new enterprises, or that otherwise intervene in ways that retard the emergence of entrepreneurial capacities which are so central to the development of an enabling environment for competitiveness and innovation.

Education

Beyond these institutional factors, many others are also known to play a role in enhancing productivity growth. Education is of course absolutely critical for development and for nurturing a capacity for innovation and commendable progress has been made in the past 50 years. By 1990 about half of the world's countries had primary enrolment rates of 100 per cent as opposed to only 28 percent in 1960. Yet much remains to be done, as illiteracy is still a fact of life in many developing nations. For example, according to UNESCO, almost 40 percent of India's population still cannot read or write. Lack of such basic skills severely limits the possibilities of citizens to participate in the development process, to be gainfully employed, to be well-informed judges of government policies and politicians, and not to fall captives to the manipulations of demagogues. From a business perspective, without access to workers with a basic education, companies are limited to resource- or

basic labor-intensive industries, and constrained in their ability to grow and to move up the value chain.

However, enrolment rates in themselves do not tell the whole story, as they disguise important differences in the *quality* of education. An artificial focus on quantitative targets, such as enrolment rates, has often obscured the importance of the quality of learning, and the role of incentives and motivation of teachers, students and parents. Education and training are thus emerging as key drivers of competitiveness. As the global economy has become more complex, it has become evident that to compete and maintain a presence in global markets it is essential to boost the human capital endowments of the labor force, whose members must have access to new knowledge, be constantly trained in new processes and in the operation of the latest technologies. Porter provides useful insights in his discussion of the role of education in contributing to an upgrading of an economy's productive apparatus. Worth highlighting are the emphasis he places on high educational standards—which typically require some form of state involvement in the setting of norms—as well as the need for students to receive education and training that has a strong practical orientation. He also notes that when teaching is perceived to be a prestigious job—hence, adequately compensated—it can have a measurable impact on the quality of the teaching staff and, more generally, the excellence of the education system. Porter highlights the importance of close collaboration between the educational institutions and potential employers, with universities and other institutions of higher education called upon to adapt to the changing needs of industry. Not to be neglected as well is the need for firms to "invest heavily in ongoing in-house training through industry associations or individually." He also praises the role of technical and vocational education, and highlights the benefits of inward migration policies that allow the movement of workers with specialized skills. As coverage of primary education has expanded rapidly in the developing world, higher education has gained importance. Thus, countries which have invested heavily in creating a well-developed infrastructure for tertiary education have reaped enormous benefits in terms of growth. Education has been a particularly important driver in the development of the capacity for technological innovation, as the experience of Finland, Korea, Taiwan, and Israel clearly shows.

Adoption and use of the latest technologies

An increasingly important factor in explaining successful economic development concerns the agility with which an economy adopts existing technologies to enhance the productivity of its industries. This is critical because technological differences have been shown to explain much of the variation in productivity between countries. In fact, the relative importance of technology for competitiveness has been increasing in recent years, as progress in the dissemination of knowledge and the increasing use of information and communications technologies have become increasingly widespread. For example, the strong productivity growth recorded in the United States over the past decade has been linked to the high adoption of information technologies, with productivity increases registered particularly in sectors using ICT extensively, such as financial services, retail and wholesale.

We also note that technology-intensive FDI not only provides strong productivity gains and improvements in business processes, but also has a number of important spillover effects, including improvements in management practice and positive effects on human capital where new technologies provide the incentive for employees to acquire new skills. At the same time, other companies become increasingly aware of the advantages of upgrading technology, with positive repercussions for the productivity of the sector as a whole.

Innovation becomes more important as countries move up the technology chain. While less advanced countries, such as those operating still mainly as producers of primary commodities, can still improve their productivity by adopting existing technologies or making incremental improvements in other areas, more advanced countries will need to do more to increase productivity. Firms in these countries must design and develop cutting-edge products and processes to maintain a competitive advantage. This requires an environment that is conducive to innovative activity, supported by both the public and the private sectors. In particular, this means sufficient business investment in research and development, high-quality scientific research institutions, investments in advanced human capital, collaboration in research between universities and industry, and protection of intellectual property.

Gender equity

A number of studies have shown that there is a close connection between national economic performance and the degree to which societies have succeeded in integrating women into the economy and have allowed her to increasingly participate in decision making, particularly in the case of representation in parliaments, cabinets and other executive bodies, and have made it possible for her to avail herself of opportunities for education and the building up of her human capital.[2]

International competitiveness and productivity have much to do with the efficient allocation of resources, including, of course, human resources. The efficient operation of our increasingly knowledge-based economy is not only a function of adequate levels of available finance, a reasonably open trade regime for goods and services, but, more and more, is also dependant on our ability to tap into a society's reservoir of talents and skills. When, because of tradition, a misunderstanding of the purpose of religion, social taboos or plain prejudices, half of the world's population is prevented from making its contribution to the life of a nation, the economy will suffer. The skills set to which the private sector can tap will be necessarily narrower and shallower and productivity, the engine of sustainable growth, will be impaired. It is indeed not a surprise that the most competitive countries in the world, those that have better been able to operate on the boundaries of the technology frontier, are also those where women have been given the greatest opportunities to be equal partners with men. Thus, gender equality does not purely have an

[2] See, for instance, López-Claros and Zahidi (2005) "Women's Empowerment: Measuring the Global Gender Gap", a Special Report, Harvard Business Review.

ethical or moral dimension, but, in fact, is an issue of economic efficiency and, thus, may be at the very basis of creating a more prosperous world.

Sustainable management of the environment

Notwithstanding buoyant world economic growth in the post-war period and important gains in the past twenty years in the fight against poverty, scientists have begun to ask themselves: are the processes underlying our current development path sustainable? Even if one accepts that remarkable progress has been made during the past half century in improving the lot of vast segments of humanity, are the processes and the policies which have produced these trends sustainable? How we manage the world's resources and whether economic growth and its supporting policies are framed in a context of sustainable development is now emerging as a key consideration in the debate over what matters for competitiveness.

To a growing number of scientists our present development path is urgently in need of correction. Frequent areas of focus, where important corrective measures are needed, have been climate change, biodiversity loss and pollution. That the earth has self-correcting mechanisms, that the physical processes underpinning changes in the environment have huge inertia, has not obscured the growing consensus in the scientific community that, at the margin, the latest trends are not sustainable. To take just a few examples: global carbon dioxide emissions from fossil fuels have sharply accelerated since 2000, reflecting a quickening in the pace of growth of the global economy,[3] a sharp rise in energy consumption in China and the weakening of natural carbon sinks, such as forests and seas.[4] Not surprisingly, large volumes of the Arctic ice have melted and accelerated flow in Greenland glaciers is contributing to a rise in sea levels. Satellite observations of the Arctic ice cap show a significant reduction in the ice cover. The decline between 2004 and 2005 was 14 percent, 18 times the rate seen over the previous years. In 1996 the volume of ice melted in Greenland was 22 cubic miles. By 2005 this figure had risen to 53 cubic miles and has picked up speed more recently.[5]

Even with the slowdown in global growth in 2009, the above trends are unlikely to be reversed since the present scale of human activity appears to have been only marginally and temporarily affected. In the absence of other measures aimed directly at reducing emissions, only a sustained, deep depression such as that witnessed during the 1929–1933 period might have an impact on the pace of accumulation of carbon dioxide emissions.

[3] According to the IMF's *World Economic Outlook*, average annual global economic growth between 2000 and 2003 was 3.3 percent before accelerating quickly to 5.0 percent during the period 2004–2007. This pickup in the pace of economic growth was associated with a remarkable increase in the price of oil and other commodities. Although there was a slowdown in 2009, annual growth, as noted earlier, is expected to be a robust + 4 percent in 2010 and 2011.

[4] In the 20-year period to 2000, CO_2 emissions rose at an average rate of 1.6 percent per year. By 2004, however, they were rising by 5.4 percent, with Asia and North America leading the way.

[5] For some impressive photos of declining ice cover see http://www.nasa.gov/centers/goddard/news/topstory/2005/arcticice_decline

Furthermore, expecting an economic depression to help temporarily mitigate the challenges of global warming is hardly a commendable solution, involving incalculable social costs.

But even beyond purely environmental concerns, there are other forces at work which are already having a major impact on our economic system's institutional underpinnings, and which have been at the center of the progress achieved during the past half century. Key among these is population growth and the corresponding pressures on resources. According to the latest *World Energy Outlook* published by the International Energy Agency, energy demand will grow by 40 percent by 2030, reflecting the addition of some 2.2 billion people to the world's population and the corresponding needs for housing, transportation, heating, illumination, food production, waste disposal, and the push for sustained increases in the standards of living. This is a remarkable forecast, given that it was released in November of 2009, in the middle of an emerging global recession and relies on assumptions about a sharp economic slowdown that year.[6] Because the mothers that will bear these 2.2 billion children are already alive today, this expected increase in the world's population—barring some unexpected calamity—will materialize and will be largely concentrated in urban environments in developing countries.

Beyond the inevitable pressures on resources, rapid population growth in the next couple of decades will lead to a broad range of challenges for governments, businesses, and civil society. For instance, in the Middle East and North Africa (a region of the world which includes Iran), high fertility rates and the highest rates of population growth in the world will put enormous strains on labor markets. These countries already suffer from the highest rates of unemployment in the world. Simply to prevent these rates from rising further it will be necessary to create well over 90 million new jobs within the next decade and a half, an extremely tall order. Failure to do so could well lead to major political and social instability. In sharp contrast, the populations of countries such as Italy, Japan, and others in the industrial world will continue to shrink, a demographic trend which, in turn, will put huge pressures on public finances, as states attempt to cope with growing numbers of pensioners putting major pressures on budgetary resources.

Powerful demonstration effects are also at work: the spread of instant communication and the Internet have led billions of people in China, India, Latin America, and other parts of the developing world to aspire to lifestyles and patterns of consumption similar to those prevailing in the industrial world. Furthermore, these populations are often unwilling to postpone such aspirations and increasingly expect their governments to deliver rising levels of prosperity, implicitly pushing for a more equitable distribution of the world's resources. At present, 20 percent of the world' population living in the 30 richest countries consume over 80 percent of the world's goods and services.

As if these demand pressures were not enough, there are emerging supply constraints as well. World cereal production per person has been on a downward trend since the late

[6] See www.iea.org and the press release posted there on November 10, 2009, the day of the launch of the latest *World Energy Outlook*.

1980s. It is estimated that by 2025 the number of people living in regions with absolute water scarcity will have risen to some 1.8 billion. Climate change, soil erosion, and overfishing are expected to dampen food production and are known to have been a driving force in the major surge in food prices in 2007-2008.

Thus, the fundamental development question which we face is how to reconcile the legitimate aspirations of citizens in the developing world for the high economic growth rates that in the post-war period led to such remarkable improvements in the global standards of living, with the challenges of an economic system under severe stress as a result of the pressures put on it by that very economic growth? Without doubt, issues of environmental sustainability will now become central to any discussion on the sort of public policies that are to be formulated to improved national competitiveness. Within this debate, we expect that there will scope for deliberations on the opportunities that green innovation, biotechnology, and renewable energy could offer to countries in LAC, as climate change begins to create increasing incentives for the development of new technologies to address pressing environmental challenges.

A competitiveness framework

The above discussion is not meant to be exhaustive. The list of other factors which contribute to create an enabling environment for competitiveness is long and our intent has been to highlight a few of the key ones, without attempting to make a comprehensive analysis, which is beyond the scope of this paper. Questions that are also relevant include: What is the legal basis for secure intellectual property and contract rights? What is the structure and level of sophistication of the financial sector, and of the policies and regulations that affect it? Is the financial sector deep enough to allow reasonably free access to finance and the emergence of venture capital? Is the trade regime unduly restrictive, or it is reasonably open, encouraging competition and gains in efficiency? What are the levels of spending in education, both in absolute terms (percent of GDP) and in relative terms (as percent of total government expenditure)? What is the proportion of university students enrolled in science and engineering? Is regulation of the labor market appropriate, or does it provide perverse incentives for both employers and workers? What are the penetration rates of the latest technologies? How effective is the government in providing information and public services for the people, and is this done through an electronic platform? Are public procurement policies and systems open and transparent and do they encourage the adoption of new technologies and reward innovation? What is the degree of collaboration between industry and the universities? Do they work independently from each other, or do they consult and give each other feedback?

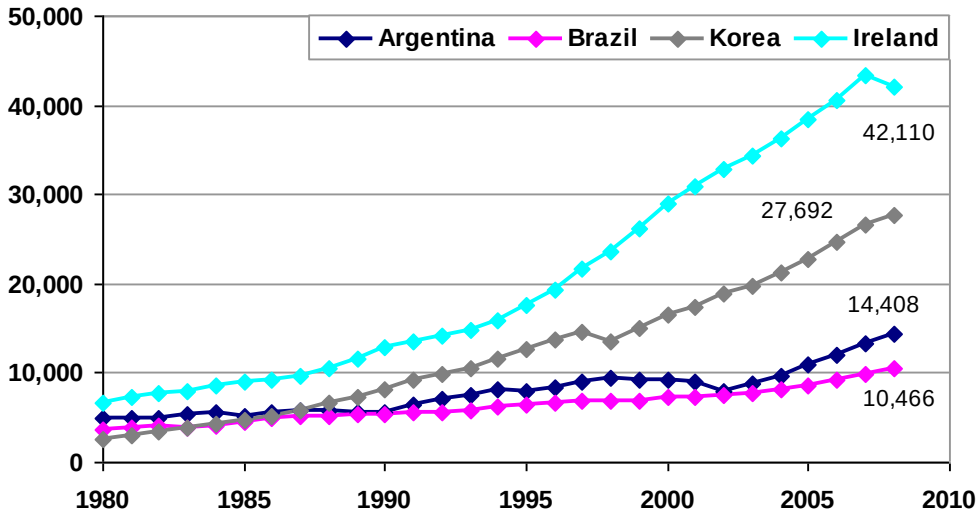
One way to synthesize the above discussion is to lay out these various factors in four component elements of competitiveness, each capturing a distinctive dimension. While there is no unique way to do this, we believe that the four components identified in Appendix I below provide a reasonably comprehensive framework that provides sufficient analytical content, with the added advantage that it can be estimated from existing data sources. In the section that follows we choose key elements of this framework—again,

with no attempt to be comprehensive but mainly to provide an overview—and ask ourselves how competitive are the economies of Latin America and the Caribbean?

IV. How competitive are we?

Figure 2 below shows GDP per capita over the period 1980-2008 for Argentina, Brazil, Korea and Ireland. If the primary purpose of implementing productivity-enhancing policies and reforms to boost competitiveness is to generate processes of sustainable growth in income per capita, what this figure shows is that Argentina and Brazil have succeeded to some extent, but Korea and Ireland have succeeded to a much, much greater extent. Indeed what is a little perturbing about this figure is that in 1980 Korea's GDP per capita was actually *lower* than that of Argentina and Brazil; today it is 2 times larger than that of Argentina and 3 times larger than that of Brazil—an impressive divergence over a relatively short span of time. This graph encapsulates in a nutshell one of the key lessons that comes out of a thorough examination of a broad range of competitiveness indicators in LAC over the past couple of decades: we have generally made improvements with respect to our past, but not nearly as much as the Koreas of this world and, therefore, we have fallen behind on a relative basis. Let us take a look at where we stand with respect to some of the key pillars of competitiveness.

Figure 2. GDP per capita 1980-2008 (PPP in US$)



Education

Table 2 shows the results of the OECD's Program for International Student Assessment (PISA) scores for a handful of countries in the OECD and for all the countries in Latin America which, following Chile's path-breaking example, have asked the OECD to carry out these evaluation tests in their countries as well. As is well known PISA is an

assessment of student skills in three critical areas: reading comprehension, mathematics and science—it is a predictor of the kinds of skills which will be found in the country's labor force. Several observations are immediately apparent. First, Chile and Uruguay—in that order—are the best performers in Latin America, followed by Mexico, Argentina, Brazil and Colombia. Second, there is a significant gap (about 41 points on average) between Chile and Portugal and Spain, two of the more mediocre performers in the OECD and near the bottom in the EU. So, even Chile does not measure up. Third, the gap is huge with respect to Finland (about 122 points on average), the OECD's top performer. Finally, there appears to be an extremely close correspondence between performance in the PISA and the Innovation Capacity Index, highlighting the critical role that skills and training have for an extremely important dimension of competitiveness.

Table 2 **PISA (Program for International Student Assessment)***

	Science		Reading		Math		Innovation Capacity Index	
	Score	Lower and Upper Ranks (57) **	Score	Lower and Upper Ranks (57) **	Score	Lower and Upper Ranks (57) **	Score	Rank (131)
Chile	438	40-42	442	37-40	411	44-48	59.4	29
Uruguay	428	42-45	413	41-44	427	42-43	52.8	49
Costa Rica	-	-	-	-	-	-	51.5	58
Peru	-	-	-	-	-	-	50.6	60
Mexico	410	48-49	410	41-44	406	46-48	50.5	61
Argentina	391	50-55	374	51-53	381	50-53	49.2	66
Colombia	388	50-55	385	48-53	370	52-55	48.0	72
Brazil	390	50-54	393	46-51	370	53-55	45.2	87
Guatemala	-	-	-	-	-	-	44.5	89
Paraguay	-	-	-	-	-	-	44.3	90
Ecuador	-	-	-	-	-	-	44.2	91
Venezuela	-	-	-	-	-	-	40.9	102
Finland	563	1-1	547	2-2	548	1-4	77.8	2
New Zealand	530	3-11	521	4-6	522	8-13	73.4	10
Ireland	508	15-22	517	5-8	501	17-23	70.5	18
Spain	488	26-34	461	34-36	480	31-34	60.3	28
Portugal	474	35-38	472	29-34	466	35-38	57.2	35

* PISA 2006: Science Competencies for Tomorrow's World, Executive Summary; OECD 2007.

** Rankings for all participating countries. On the basis of the samples of students assessed by PISA, it is not always possible to say with confidence which of two countries with similar performance has a higher mean score for the whole population. However, it is possible to give a range of rankings within which each country falls.

These results are sobering for our region and they are generally consistent with other data which paints a broadly similar picture (see Table 3). For instance, tertiary enrollment rates are quite low. Among 131 countries ranked, Brazil is placed 68th, Mexico 67th, compared to Korea (3rd), and Portugal (32nd). Annual expenditure on education in LAC is, on average, 3.6 percent of GDP, compared to 6.5 percent of GDP in Finland and 7.4 percent of GDP in Sweden. So, without question, education has to be one of the key priority areas for action in LAC and RIAC could play an important catalytic role in raising awareness among the authorities that the region is falling behind. For a start, it would be vital to expand the number of countries in LAC that participate in the PISA. This is an extremely important benchmarking exercise and an excellent way to focus the attention of the authorities on deficiencies in the educational system. Incidentally, there is not a single Latin American

university among the best 220 in the world.[7] According to this particular set of rankings, the Universidad Nacional Autónoma de México (UNAM) is the best in the region, with a rank of 222, and there are no others among the top 250. There are relatively low levels of R&D spending in the region, which, as might be expected, has a counterpart in the inadequate funding provided by the government and the business community to the universities. There is no well-established tradition in Latin America of active collaboration between the universities and the business sector, a fertile source of innovations in those countries that have succeeded in nurturing this critical relationship.

Table 3. Human and Environmental Capital--Key variables

	Public expenditure in education (% of GDP)	Tertiary enrollment rate (%)	Gender equity*	Environmental performance**	Inequality Gini index
Argentina	3.8	63.8	26	70	50.0
Brazil	4.4	25.5	80	62	55.0
Chile	3.5	46.6	73	16	52.0
Colombia	4.8	30.8	82	10	58.5
Costa Rica	4.9	25.3	29	3	47.2
Ecuador	1.0	15.9	45	30	54.4
Guatemala	1.3	8.7	78	104	53.7
Jamaica	5.3	19.0	69	89	45.5
Mexico	5.4	26.1	48	43	48.1
Paraguay	4.3	25.5	92	60	53.2
Peru	2.4	35.1	37	31	49.6
Uruguay	2.6	46.3	64	83	46.2
Venezuela	4.6	52.0	55	64	43.4
Finland	6.5	93.2	3	12	26.9
India	3.8	11.8	89	123	36.8
Ireland	4.8	58.8	22	44	34.3
Korea	4.6	92.6	66	94	31.6
New Zealand	6.5	79.7	13	15	36.2
Portugal	5.7	54.5	20	19	38.5
Spain	4.3	67.4	12	25	34.7
Sweden	7.4	79.0	1	4	25.0

* Rank of 131

** Rank of 163

Regulatory framework

The private sector in Latin America labors under the onerous weight of mindless levels of bureaucracy and red tape (Table 4). With few examples, the region scores extremely poorly on the *Doing Business* indicators compiled by the World Bank which capture obstacles to the creation of new businesses and the costs of over-regulation. It takes 18 procedures in Brazil to start a new business. Together with Bolivia and Venezuela, Brazil

[7] According to: http://www.topuniversities.com/world-university-rankings

is among the bottom 10 in the 181 countries ranked. It takes 152 days to comply with these 18 procedures, also a bottom 10 rank for Brazil. Do you want to pay taxes? Bolivia and Venezuela have a rank of 172 and 174 respectively, in terms of making this difficult. But, just in case the reader is thinking that these are special cases, here are the ranks for some of the others: Argentina 147, Brazil 137, Colombia 167, Costa Rica 140, Mexico 135, Uruguay 131. Chile is 34, more than 100 places ahead of the rest. Chile aside, most other countries seem to be saying: "want to pay your taxes: please don't bother, we are too busy!" Registering property? It takes 14 procedures in Brazil and 45 days. Enforcing contracts? 616 days in Brazil, compared to 590 days in Argentina, versus 20 days in Ireland. In Argentina it takes 28 procedures to get a license, demanding 338 days and costing the applicant, on average, 234 percent of income per capita, indicators which earn Argentina a rank of 165 in this indicator.

Table 4. Doing Business Report: A regulatory nightmare in Latin America

	Argentina	Brazil	Mexico	Venezuela	India	China	New Zealand
Ease of doing business*	113	125	56	174	122	83	2
Starting a business*	135	127	115	142	121	151	1
Number of procedures	15	18	9	16	13	14	1
Time (days)	32	152	28	141	30	40	1
Dealing with construction permits*	167	108	33	96	136	176	2
Employing workers*	130	121	141	180	89	111	14
Registering property*	95	111	88	92	105	30	3
Time (days)	51	42	74	47	45	29	2
Protecting investors*	104	70	38	170	38	88	1
Paying taxes*	134	145	149	177	169	132	12
Enforcing contracts*	45	100	79	71	180	18	11
Time (days)	590	616	415	510	1420	406	216
Closing a business*	83	127	23	149	140	62	17
Time (years)	2.8	4	1.8	4	10	1.7	1.3

* Rank of 131 countries

Source: Doing Business Report 2009

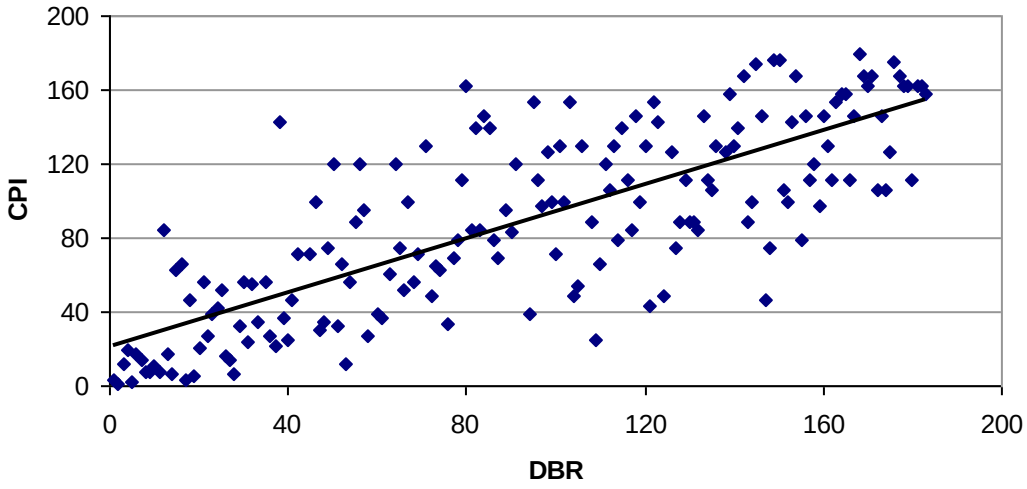
These results are simply appalling. What is particularly troublesome (not to say tragic) is that bureaucracy and red tape are self-imposed evils. Countries in the region may be price-takers for the international commodities they export, they may have little control over the broader parameters that determine the pace and the direction of the globalization process, they may have been innocent bystanders of the 2008-2009 financial crisis which got underway with flaws in the financial sectors of the advanced economies, but they most definitely have a large degree of control over the bureaucratic obstacles they put in the way of entrepreneurship and innovation. This is yet another area in which we see ample scope for RIAC to play an important role in the region, both in terms of raising awareness but, more importantly, in collaborating with the private sector to identify needless barriers to economic growth and prosperity and working with governments to remove them, as Chile has successfully done over the past quarter century.

Economists seem to be agreed that an important source of corruption stems from the distributional attributes of the state. For better or for worse, the role of the state in the economy has expanded in a major way over the past century and this has led to the

proliferation of benefits under its control and also in the various ways in which the state imposes costs on civil society and the business community. While a large state need not necessarily be associated with higher levels of corruption—the Nordic countries have the highest levels of public spending in the world but are also the least corrupt—it is the case that, at least in principle, the larger the number of interactions between officials and private citizens, the larger the number of *opportunities* in which the latter may wish to illegally pay for benefits to which they are not entitled, or avoid responsibilities or costs for which they bear an obligation. In those countries where the state is involved in the distribution of social benefits, but in ways that are not transparent, and which may involve corruption, these will not be equitably distributed and the poor—less able to pay/bribe—will be at a disadvantage. In such cases, the intent of social policy will be distorted and, if the problem is serious enough, perverted.

Governing often translates into the issuing of licenses and permits. From the cradle to the grave, the average citizen has to enter into transactions with some government office or bureaucrat to obtain a birth certificate, to get a passport, to pay taxes, to open up a new business, to drive a car, to register property, to engage in foreign trade, to sell a good or service to the government, to hire an employee, to use the publicly provided health services, to be allowed to build a house, among countless others. There is thus an additional interesting dimension to bureaucracy and red tape in the developing world including, of course the LAC region. Studies have shown that the prevalence of corruption is highly correlated with the incidence of red tape and excessive regulation. Figure 3 below shows the country rankings for Transparency International's *Corruption Perceptions Index* and the rankings for the World Bank's *Doing Business Report* for a total of 170 countries—and it speaks for itself: the greater the extent of bureaucracy and red tape, the greater the incidence of corruption—the correlation coefficient is close to 0.80. Table 5 shows the actual corruption rankings for several countries in LAC—only three countries (Chile, Uruguay and Costa Rica) are among the top 50.

Figure 3. 2009 Corruption Perceptions Index vs Ease of Doing Business Ranks



Source: Transparency International and World Bank 2009 Doing Business Report

Table 5. Corruption Perceptions Index
General Ranks 2009: Latin America

	Rank (180)	Score (10)
New Zealand	1	9.4
Denmark	2	9.3
Singapore	3	9.2
Sweden	3	9.2
Switzerland	5	9.0
Finland	6	8.9
Chile	25	6.7
Uruguay	25	6.7
Costa Rica	43	5.3
Brazil	75	3.7
Peru	75	3.7
Colombia	75	3.7
El Salvador	84	3.4
Panama	84	3.4
Guatemala	84	3.4
Mexico	89	3.3
Dominican Republic	99	3.0
Jamaica	99	3.0
Argentina	106	2.9
Bolivia	120	2.7
Honduras	130	2.5
Nicaragua	130	2.5
Ecuador	146	2.2
Paraguay	154	2.1
Venezuela	162	1.9
Haiti	168	1.8

Source: Transparency International

Adoption and use of ICTs

There is generally a perception in the region that countries have kept pace with the adoption of the latest technologies. Table 6 shows data on the penetration rates for mobile telephones, broadband subscribership, internet use and personal computers use. The table also shows the United Nations' e-Government Readiness Index. As with several indicators of education (e.g. enrollment rates at all levels of the educational ladder), the data over the past decade shows two things: the region has definitely made improvements with respect to its history, but there is a large gap with respect to the top performers, many of which have moved farther, faster and deeper. Mobile penetration rates have perhaps moved up the fastest, with Argentina having coverage already in excess of 100 percent, followed by Jamaica and Uruguay with rates at or in excess of 90 percent. Other countries have also

come a long way, including Chile and Venezuela. While the average for the region is still well below that seen in the advanced economies, it is not unreasonable to argue that the gap is likely to narrow further in coming years. In many countries in LAC mobile phones have turned out to be an excellent way to bypass the limitations associated with fixed telephone lines, which tended to be extremely scarce and costly, sharply curtailing business productivity. Internet use is highest in Jamaica (55 user per 100 inhabitants) and Costa Rica and Chile (33.5 users per 100 inhabitants) but, unlike mobile telephony, the gap with respect to countries like Korea (72.2 users per 100 inhabitants) is very large and is larger with respect to countries like Netherlands and Norway (not shown in Table 6) and New Zealand which are all above 80 users per 100 inhabitants.

Table 6. Adoption and Use of ICTs--Key variables

	Mobile subscribers per 100 inhabitants	Broadband subscribers per 100 inhabitants	Internet users per 100 inhabitants	Personal computers per 100 inhabitants	e-Government Readiness Index 2008*
Argentina	102.2	6.58	23.5	9.1	39
Brazil	63.1	4.22	26.1	16.1	45
Chile	83.9	7.20	33.5	14.8	40
Colombia	73.5	2.62	26.2	5.4	50
Costa Rica	33.8	2.93	33.6	23.1	55
Ecuador	75.6	2.39	11.5	12.7	68
Guatemala	76.0	0.22	10.2	2.1	81
Jamaica	93.7	2.97	55.3	6.8	75
Mexico	64.1	4.27	21.4	13.8	37
Paraguay	70.7	0.80	4.6	7.5	76
Peru	55.3	2.04	27.4	10.0	53
Uruguay	90.0	4.94	29.0	13.8	46
Venezuela	86.1	3.10	20.7	9.3	58
Finland	115.2	33.33	68.2	50.0	15
India	20.0	0.27	17.1	2.8	87
Ireland	114.9	16.40	39.7	58.9	19
Korea	90.2	30.62	72.2	54.4	6
New Zealand	101.6	16.13	80.4	54.2	17
Portugal	126.3	15.13	33.4	17.1	31
Spain	110.2	17.94	44.5	36.9	20
Sweden	105.9	25.87	76.8	88.2	1

* Rank of 131

Source: International Telecommunications Union

The gap with respect to the advanced economies is even larger when considering broadband penetration rates where the region's top performer—Chile—has 7.2 users per 100 inhabitants, compared to over 30 in Korea, Finland, Netherlands, Norway and Switzerland. Costa Rica leads the region in personal computer use but at rates that are still less than half those of Korea and less than a third of Canada, Netherlands and Switzerland, among others. Table 6 also shows the rankings—among 131 countries—for the United Nations e-Government Readiness Index. E-government is defined as the use of ICT and its

application by the government for the provision of information and public services to the people. The aim of e-government therefore is to provide efficient government management of information to the citizen, better service delivery to citizens, and empowerment of the people through access to information and participation in public policy decision making. Mexico, Argentina, and Chile are LAC's top performers, roughly on a par with Bulgaria, Greece, Latvia, Croatia, and the Slovak Republic and well below Korea.

In Chile, the use of online platforms to facilitate the government's interactions with civil society and the business community has been particularly successful in the areas of tax collection, public procurement, and red tape. The Internal Revenue Service (IRS)[8] was the first government agency to adopt the Internet as a tool to enhance the quality of client services, to improve tax administration, and add a degree of transparency to interactions between the agency and taxpayers. Through its Website, the Chilean IRS processes the delivery of annual and monthly income tax statements, electronic invoicing and fee billing, and electronic start-up application forms. It also has a service which provides assistance to small businesses with accounting and electronic invoicing. The Chilean IRS is one of the most modern tax administrations in the world. Indeed, its success has spurred other public and private agencies in Chile and abroad to use similar electronic platforms to deal with clients. High levels of compliance have shown not only that technology can help eliminate corruption in the payment of taxes, but contribute to improve overall efficiency. The statistics are impressive: over 98 percent of Chilean tax-payers state and pay their income taxes through the Internet, amounting to over 2 million statements filed during 2009.

With the increasing presence of the state in the economy, purchases of goods and services by the state can be sizable, in most countries somewhere between 5-10 percent of GDP, or equivalent to somewhere between US$ 3-6 trillion on an annual basis worldwide, a huge sum. Because the awarding of contracts can involve a measure of bureaucratic discretion, more and more countries have opted for procedures that guarantee adequate levels of openness, competition, a level playing field for suppliers, fairly clear bidding procedures, and so on. Of course, there is a wide variety of country practice. Often, the poorer the country, the more archaic—and hence the more vulnerable to corruption—the rules governing public procurement.

As with tax collection, Chile has used the latest technologies to create one of the world's most transparent public procurement systems in the world. MercadoPúblico.cl, better known as ChileCompra was launched in 2000, and is a public electronic system for purchasing and hiring, based on an Internet platform. It has earned a worldwide reputation for excellence, transparency and efficiency. It serves companies, public organizations (including universities, hospitals, schools, the military, government ministries, and Congress, among others) as well as individual citizens, and is by far the largest business-to-business site in Chile. Involving 850 purchasing organizations, in 2009 registered users completed 450,000 purchases issuing invoices totaling US$6 billion. It has also been a catalyst for the use of the Internet throughout the country. The third area in which Chile has spearheaded the use of technology to improve the efficiency of the state is in the area

[8] See www.sii.cl

of red tape. ChileClic is a government site coordinating the work of over 150 government agencies and private institutions, and managing close to 450 administrative processes online, including birth certificates, identity documents, pension fund payments, trademarks/patents, housing subsidies, university credits, and so on. The site receives an average of more than 3 million visits per year.

The authorities in Chile have shown remarkable leadership as well in identifying the key challenges ahead to strengthen the role of ICTs in improving productivity and in boosting the innovation capacities of the public and private sectors and civil society. In this respect they feel that it is necessary to expand and intensify the integration of digital technologies in the educational curriculum and to improve the education and training of highly qualified workers. It is also necessary in their view to enhance connectivity, especially among the lowest four-fifths of the income distribution, by overcoming unequal income distribution, restrictions facing micro- and small companies, and connectivity problems in rural and remote regions. They would also like to encourage the development by the private sector of computer packages for low-income households and micro-companies to access Internet more cheaply and effectively as well as to continue government subsidies for rural and remote areas and low-income communities and microcompanies. Priority is also being given to increase R&D in the use of ICTs to stimulate competitiveness of the main export sectors and to rectify limitations in the legal system and provide appropriate institutional framework to stimulate/encourage e-trade, e-government, and use of ICTs, to assure public trust in electronic operations and platforms. Finally, priority is also being given to facilitate the takeoff of the ICT industry by improving virtuous cycles of cooperation between institutions of higher education and the business community. This is seen as essential to narrow the skills gap that exists today between Chile and the average in the OECD, made evident by the results of the PISA tests.

In all these areas, there is ample scope for technical assistance from the international financial institutions, particularly the World Bank. Chile was able to implement the above reforms because it had the financial means, the human capital resources, and the strong backing of its politicians to use technologies to improve the efficiency of public services. Many developing countries may have the will to implement similar reforms, but often lack the funding or the technical means to put such systems in place. Over the past several decades, we have tended to underestimate the relative importance of technical assistance in foreign aid programs. Often the *knowledge* gap—the inability to tap into best practices because countries do not have adequate human resources to run programs like ChileCompra—is far more insurmountable than the *financial* gap, which donors can fund.

Environment

One of the leading efforts to measure the effectiveness of national environmental protection policies in a large number of countries is the Environmental Performance Index (EPI) compiled jointly by the Yale University's Center for Environmental Law and Policy and Columbia University's Center for International Earth Science Information Network. The EPI measures two core objectives of environmental policy: environmental health, which measures environmental stresses to human health; and ecosystem vitality, which

measures ecosystem health and natural resource management. The EPI used 25 indicators that capture various dimensions of environmental policy, such as the environmental burden of disease, water resources for human health, air quality for human health, air quality for ecosystems, water resources for ecosystems, biodiversity and habitat, forestry, fisheries, agriculture, and climate change. According to the authors of the EPI Report: "the 25 indicators reflect state-of-the-art data and the best current thinking in environmental health and ecological science. Some represent direct measures of issue areas, others are proxy measures that offer a rougher gauge of policy progress by tracking a correlated variable. Each indicator corresponds to a long-term public health or ecosystem sustainability target."[9] It is noteworthy that, unlike many of the other areas analyzed thus far (e.g., education, the regulatory framework, the adoption of new technologies) the LAC region does have two top-ten performers among the 163 countries ranked in 2010 by the EPI: Costa Rica is 3rd and Colombia is 10th , with Chile in 16th place. We are of the view that high-carbon economies in the future will become increasingly uncompetitive and that those countries which move early on to deal with some of the critical environmental challenges we have identified above and gear up to move to low-carbon technologies and to a more effective management of national ecosystems will be winners. It is encouraging to know that this is one area in which the region could fruitfully contribute to the international debate on how to do this in a cost-effective way.

Other areas

It is beyond the scope of this paper to provide a more comprehensive assessment of the key competitiveness challenges facing the LAC region—the above analysis provides, in our view, an appropriate overview. Two areas that perhaps deserve here brief mention are income disparities and the efficiency of public spending. Gini coefficients (see Table 3) for countries in Latin America are among the highest in the world. Gini coefficients for most countries are somewhere between 25 and 60. The Nordic countries, among the most egalitarian, have Gini values in the mid-twenties as does Japan. The United States has a Gini coefficient of 40.8 and China an even higher one of 41.5. Some of the highest coefficients can be found in Latin America and Africa, with Gini values in the 50s and some, like Brazil, Colombia, Bolivia and South Africa, are actually closer to 55-60. Economic growth will reduce poverty, there is a close correspondence between the growth of per capita GDP and the gains made by the poor—this is one of the main lessons to emerge from the post World War II period. But it will not necessarily reduce income inequality; indeed, in some cases, depending on the country's stage of development, it may well widen it. Of course, one also worries about widening inequalities because of some of the consequences they bring about, such as an increase in the likelihood of a breakdown of democracy, or a postponement in the onset of democracy in authoritarian regimes, as has been established in a number of empirical studies.

The second area has to do with enormous inefficiencies in the structure and priorities of government spending in much of the region. Large public sector deficits are no longer the problem—but rather of concern are the opportunity costs associated with misguided

[9] *2010 Environmental Performance Index*, available at http://epi.yale.edu/file_columns/0000/0151/epi2010_report.pdf

spending priorities. According to a study by the International Energy Agency released ahead of the latest G20 meeting in Korea "37 large developing countries spent about $557 billion in energy subsidies"[10] in 2008. According to the IEA's chief economist "fossil fuel subsidies are the appendicitis of the global energy system which needs to be removed for a healthy, sustainable development future." According to the study "energy consumption could be reduced by 850 million tonnes equivalent of oil—or the combined current consumption of Japan, South Korea, Australia and New Zealand—if the subsidies are phased out between now and 2020." A similar study by the IMF notes that "the benefits of gasoline subsidies are the most regressively distributed, with over 80 percent of total benefits accruing to the richest 40 percent of households. For diesel and liquefied petroleum gas (LPG), respectively, over 65 percent and 70 percent of benefits go to these income groups." The authors argue further that reducing fuel subsidies by half "would result in greenhouse gas emissions reductions of 14-17 percent by 2050 (p. 12)."[11] It goes without saying that a large part of this problem is concentrated in LAC, where energy subsidies are ubiquitous and where governments in general have not paused to think about the opportunity costs in terms of education, public health and infrastructure, areas where the region lags behind and where investments are productivity-enhancing. Of course, a gradual phasing out of regressive subsidies would go some way toward empowering governments to implement policies that would be more proactive in terms of reducing income inequalities.

V. RIAC and the promotion of a competitiveness agenda in LAC

The previous section has provided a survey of the key competitiveness challenges facing Latin America and the Caribbean in the near term. The picture that emerges is one of countries that, having made some progress in recent years with respect to past performance, have not done so in a way that has kept pace with the rhythm of reforms in many other parts of the world, particularly Asia, but also, for instance, the countries of Central and Eastern Europe all of which (save for Chile) are more competitive than every other country in LAC.

In thinking about creative ways in which RIAC could engage in the promotion of a competitiveness agenda in LAC we have examined the experience of other regions. An important benchmark in terms of regional programs to promote issues of competitiveness was that launched by EU members a decade ago, under the banner of the Lisbon Strategy. The Lisbon Strategy was adopted by EU governments in 2000, identifying a number of areas where reforms were needed to make the EU "the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion."[12] As part of the Strategy governments laid out a medium-term reform program intended to tackle perceived weaknesses in critical

[10] "World Spends more than $550bn a year on energy aid, says IEA", *Financial Times*, June 7, 2010.

[11] Coady, David, Robert Gillingham, Rolando Ossowski, John Piotrowski, Shamsuddin Tareq, and Justin Tyson. 2010. "Petroleum Product Subsidies: Costly, Inequitable, and Rising", IMF Staff Position Note, International Monetary Fund, Washington, DC.

[12] See "Presidency Conclusions", Lisbon European Council, 23 and 24 March 2000, Press Release Library, European Commission.

areas.[13] While the goals set out in 2000 have partly fallen victims to the constraints imposed on governments by the global financial crisis, there is little doubt that Lisbon markedly contributed to a better identification of policy priorities and to focus debate on the key structural reform challenges facing Europe. We are unaware of any similar regional initiative in Asia. However, it is the case that countries in Asia (Korea, Singapore, and Taiwan, come quickly to mind and, more recently, India and China) take competitiveness issues extremely seriously. Indeed, it is this focus on reforms aimed at enhancing productivity and tackling inefficiencies and bottlenecks in their respective economies that is mainly responsible for the strong economic performance of Asia in the past two decades with respect to the more subdued performance of LAC and, indeed, other regions of the world.

We are of the view that to have a meaningful periodic exchange of views on competitiveness issues and performance among RIAC members it is necessary to have a quantified competitiveness framework as a platform to stimulate debate and provide an intellectual context. There is, of course, no unique way to develop such a framework and the 4 areas offered in Appendix I at the end of this paper are one such possibility which, in our view, bring in some of the most critically important dimensions of competitiveness. Unlike other competitiveness indices, however, it has the virtue of overwhelmingly relying on hard data and incorporating within its structure aspects which have in recent years emerged as important building blocks in the debate over what sorts of factors and policies will contribute to enhance productivity and allow for high-quality sustainable growth.

The question that now emerges is: in what ways can RIAC contribute to promote a competitiveness agenda in LAC that succeeds in engaging the attention and the commitment of governments and the private sector? We have a number of recommendations:

1. The meeting in Atlanta is obviously important in terms of formulating such a strategy. This paper has provided an overview of competitiveness issues in the region mainly as a way to suggest priorities for action. We believe that an important element of the program in Atlanta should focus on an analysis of where we stand in a number of these key areas and how different countries in the region are coping with these challenges. Four such areas that readily come to mind are education, the regulatory framework, the use of the latest technologies to enhance the efficiency of the public sector, and the various ways in which countries are beginning to formulate better policies for the low-carbon economy of the future.

2. There seems to be broad consensus among RIAC representatives that a systematic exchange of views on relevant country experiences in the area of competitiveness has to be a central element of RIAC's work program. There is, in our view, considerable scope for a useful sharing of such experiences, focused on creative ways in which countries have met some success in introducing productivity-enhancing reforms. The

[13] Among the reform areas identified in the Lisbon Strategy are: liberalization of the regulatory framework to guarantee completion of the EU's single market; developing a European area for innovation, research and development; increasing social inclusion; and enhancing sustainable development.

meeting in Atlanta could be the starting point of a sustained process of cross-fertilization of ideas and experiences, with countries sharing and comparing notes on various dimensions of the competitiveness agenda. What were the critical elements behind the introduction of Chile's highly successful electronic platform for public procurement? What has Costa Rica done right to have attained a rank of 3rd in the Environmental Performance Index? What has been the experience in Chile, Uruguay, Mexico, Argentina, Colombia and Brazil with the OECD's PISA (Program for International Student Assessment) and has it facilitated the formulation of better policies to improve the educational system? Is the region producing enough engineers and scientists and, if not, why not? Why is the region lagging so far behind the rest of the world in creating a more intelligent regulatory framework and how can governments and the private sector work together in the identification and subsequent gradual elimination of mindless bureaucracy and red tape? How successful have countries been in improving girls education and in removing various obstacles to a fuller participation of women in decision making bodies, both in government and in business? Some countries have been more successful in weaning themselves away from regressive energy subsidies while others seem to be stuck in a vicious circle where large subsidies (sometimes exceeding spending on education) limit the government's ability to invest in areas that are far more likely to boost competitiveness over the medium-term. What explains these differences in country experience? Can other countries in the region follow Chile's example and earn entry into the OECD, something that now will allow the government regularly to benchmark itself against the extremely useful set of market regulation indicators developed by that organization to "assess the extent to which the regulatory environment promotes or inhibits competition in markets where technology and market conditions make competition viable"?

3. While the beginnings of a useful debate on the above issues could be very much part of the program in Atlanta, we need to also give some thought to the next stage, namely, finding a forum (that is, a home) for an ongoing periodic consultation in a way that is structured and evolutionary in character. A natural starting point could be the Summit of the Americas, of which the OAS is the Secretariat. This gathering has the advantage that it brings together heads of state and government and would provide an ideal opportunity to engage senior decisionmakers on the broad array of competitiveness challenges facing the region. Another possibility would be to explore the inclusion of a competitiveness chapter in the Ibero-American Summit organized by the Secretaría General Iberoamericana (SEGIB), which also benefits from the participation of senior business community representatives. Alternatively, one could hold a Competitiveness Forum in parallel to the Summit, drawing from the presence of senior officials and leading business executives. To the extent that there is a need for closer collaboration between government and the private sector on competitiveness issues and the associated reform agenda, this model could provide beneficial synergies and, of course, would not preclude other initiatives aimed at promoting the competitiveness agenda. At a more technical level the Americas Competitiveness Forum (ACF) is, of course, already an ideal forum to bring together the innovation and competitiveness authorities and councils to explore issues of common interest. In time, one could explore the

possibility of adding a second yearly gathering of experts, perhaps in preparation for the ACF.

4. It would seem that there is an opportunity for RIAC to catalyze a process of collaboration on competitiveness issues with the key international development organizations, particularly the World Bank, the IMF, the IDB and the CAF. The multilateral organizations are closely aligned with the promotion of improvements in the investment climate—indeed, the whole range of factors which are identified in the 4 areas discussed above (regulatory and legal framework, human and environmental capital, adoption and use of ICTs, and the institutional environment). We see no reason why the multilateral organizations could not be approached by the OAS to help fund an annual Competitiveness Forum in LAC that would bring together policy makers and business community representatives, to review the reform agenda, to share experiences, and, more generally, to more firmly implant competitiveness within national plans and priorities. This collaboration could be a key element behind the positioning of RIAC as a unique forum for public-private partnerships (including academia) to address the different competitiveness challenges facing the region, including in the areas of innovation, productivity and logistics, among others.

5. One way to ensure sustained interest in the implementation of an ambitious agenda of reforms aimed at boosting LAC's competitiveness profile would be to secure commitment from heads of state and governments to the equivalent of the EU's Lisbon Strategy approved in 2000. The benefits of framing a reform agenda over a 10-year period with a well-identified set of priorities over a range of key areas are obvious. As we have seen above, most of the weaknesses currently afflicting the LAC region will not be addressed overnight. They are not in the nature of short-term macroeconomic stabilization measures; rather they are more in the spirit of structural and institutional reforms which necessarily have to be framed in a medium-term perspective. Something like a "Latin American Competitiveness Strategy 2020" could become an effective instrument to promote reforms in the region. Securing support for it at the highest political levels would, of course, be essential. Identifying a set of well-defined goals in key areas would also be an unavoidable requirement—in this respect something like the structure proposed in Appendix I (see also paragraph 6 below) could be an extremely useful tracking tool. One obvious advantage that readily emerges is that a Competitiveness Strategy 2020 could provide critically important content to many of the high-level gatherings that with predictable regularity bring senior politicians and civil servants together to discuss issues of common interest. To add a competitiveness dimension to these gatherings would be highly advantageous, given the challenges the region faces, with the emergence of Asia in particular. Of course, RIAC and the OAS could play a catalytic role in moving governments and the private sector in this direction. Indeed, in the region there is a great need for a multi-stakeholder platform that will gradually see competitiveness-enhancing reforms as part of a joint collaborative undertaking between the state, the business community and civil society that goes beyond the political cycles that often provide short-term motivations to governments.

6. To provide a quantified framework for on-going discussions and consultations on competitiveness issues as proposed in the preceding paragraphs, we think that the annual estimation of four competitiveness sub-indices covering the regulatory and legal framework, human and environmental capital, the adoption and use of information and communication technologies, and the institutional environment, would be an extremely useful exercise. These sub-indices would enrich the debate and make possible meaningful cross country comparisons (including vis-à-vis relevant top performers outside the LAC region) and, over time, comparisons with respect to a country's own historical performance. Furthermore, the structure proposed in Appendix I has the additional advantage that it would not require a RIAC-sponsored business survey but could be compiled and estimated, as noted earlier, utilizing readily available international data sources.

7. To the extent that RIAC succeeds in inserting competitiveness issues into the national policy agenda it will also succeed in generating interest with the general public and the media. We agree that it is important to capture the attention of print journalism and TV, as part of efforts to shape public opinion and engender support for reforms within civil society. But this presupposes that we have a solid "output" that can garner the interest of the public and begin to generate a consensus in favor of change.

Appendix I: A Competitiveness Framework

As noted earlier, competitiveness has many dimensions. Below we present four aspects of competitiveness which capture key elements of the regulatory and legal framework, a country's human and environmental capital, the use and adoption of the latest technologies and the institutional environment.

Regulatory and legal framework

A. Doing business

1. Starting a business
   - Number of procedures
   - Time (days)
   - Cost (as % of income per capita)
2. Ease of employing workers
   - Ease of employing workers
3. Paying taxes
   - Paying taxes
4. Protecting investors
   - Strength of investor protection
5. Registering property
   - Number of procedures
   - Time (days)
   - Cost (as % of property value)
6. Other regulatory
   - Dealing with construction permits
   - Closing a business

Human and environmental capital

A. Education

- Adult literacy rate (% aged 15 and older)
- Secondary gross enrolment ratio (%)
- Tertiary gross enrolment ratio (%)
- Expenditure in education (as % of GDP)
- Quality of the educational system
- Quality of the institutions of higher education

B. Sustainability and equity

- Gender Equity
- Environmental sustainability
- Health worker density
- Inequality measure: ratio of richest 20% to poorest 20%

Adoption and use of information and communication technologies

A. Telephone communications

- Main (fixed) telephone lines per 100 inhabitants
- Waiting list for main (fixed) lines per 1000 inhabitants
- Business connection charge (as % of GDP/capita)
- Business monthly subscription (as % of GDP/capita)
- Residential connection charge (as % of GDP/capita)
- Residential monthly subscription (as % of GDP/capita)

B. Mobile cellular communications

- Subscribers per 100 inhabitants
- Prepaid subscribers per 100 inhabitants
- Population coverage (%)
- Connection charge (as % of GDP/capita)

C. Internet, computers and TV

- Total fixed internet subscribers per 100 inhabitants
- Total fixed broadband subscribers per 100 inhabitants
- Internet users per 100 inhabitants
- Personal computers per 100 inhabitants
- Television receivers per 100 inhabitants

D. Government ICT usage

- E-government readiness index

E. Quality of the infrastructure

- Electrification rate (%)
- Electric power transmission and distribution losses (as % of output)
- Roads paved (as % of total roads)

Institutional environment

A. Good governance

- Voice and accountability
- Political stability
- Government effectiveness
- Rule of law
- Property rights framework
- Transparency and judicial independence
- *Corruption Perceptions Index* (TI)

B. Country policy assessment

1. Public sector management
    - Quality of budgetary and financial management

- Quality of public administration

2. Structural policies
    - Financial sector efficiency
    - Trade openness
    - Foreign direct investment gross inflows (as % of GDP)
3. Macroeconomy
    - Debt levels
    - Fiscal balance
    - Macro stability
    - Real effective exchange rate