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**Industrial Policy**

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# **THE (SLOW) RETURN OF INDUSTRIAL POLICIES IN LATIN AMERICA AND THE CARIBBEAN**

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## **Introduction**

This article is based on the hypothesis that, to empower their development processes, the countries of Latin America and the Caribbean need to implement policies aimed at creating new sectors or modernizing mature ones, within the constraints imposed by the size, development level and economic structure of the individual national economies.<sup>2</sup> Diversification of the productive structure, thereby improving the product mix and the vector of international specialization, is decisive for closing the productivity gap in relation to the international technology frontier, and, hence, for quickening the pace of aggregate productivity growth in open economies. Such diversification allows for better domestic linkages, thereby reinforcing the positive impact of economic growth on aggregate productivity (Cimoli, Correa and Primi 2003).

The experience of public-private consensus-building efforts in Latin America in the 1990s suggests that opportunities for bringing about change in the structure and dynamics of industry through marginal policies may have been exhausted. These efforts — for example, the National Competitiveness Council in Colombia or the Production Development Forum in Chile — focused on identifying specific competitiveness problems in production chains or sectors, and then proposing particular actions to address them. This approach was akin to identifying market failures and designing policies to correct them. A competitiveness benchmark was identified for a sector or chain, and actions were designed to correct the problems that caused the gap between the actual conditions and the benchmark —by building some infrastructure, for example, or simplifying an administrative procedure, or changing a rule. While these decisions were not always put into practice, they were an improvement compared to the *laissez faire* approach that characterized the first half of the 1990s. The evidence, however, shows that the results achieved were less than outstanding, except with regard to exports that possessed comparative natural or labor advantages. And, we all agree that backwardness and inaction are especially harmful where technology and innovation are concerned.

Time has also passed. The gap between the region and the developed and newly industrialized economies has grown in terms of productivity and competitiveness, while the pace of the technological revolution has accelerated. Continued reliance on marginal measures may fall short of what is required to attain objectives such as “competitive insertion in the world marketplace”, “joining the knowledge society” or, to be less presumptuous, “adding value to exports”.

Naturally, it may be argued that big problems do not always require big solutions, and that a few well-chosen actions may serve as catalysts. There is, however, no evidence that any real progress has been made in determining whether such catalysts exist, and, if they do, what they are. The usual discourse is that an action can serve as a catalyst when its importance is acknowledged, but no significant resources are allocated to it. Another approach advocates a large number of marginal actions leading toward change. This view may be correct; however, hundreds of measures have been identified using consensus-building mechanisms, and only a few have been implemented. Today, it does not appear to be significantly easier to implement hundreds of actions than it was a decade ago, given the scarce progress made in the development and strengthening of policy institutions. Consequently, changing the structure of industry does not appear to be a costlier alternative, especially since there is little time left to enter the technology and innovation race, if the goal is truly to achieve “competitive insertion in the world”, “join the knowledge society” or “add value to exports”.

Deliberate sectoral strengthening policies can increase the density and complexity of a country’s productive structure; and those variables are positively correlated with the stability of its growth rates, and the speed and flexibility of its response to external shocks (Castaldi 2003). Productive complexity acts by creating domestic counterweights to the transmission of shocks, thereby generating automatic stabilizers. Specialization, in conjunction with increased knowledge content and diversification, makes it possible to more fully exploit the increasing returns to scale implicit in technical progress, which leads directly to virtuous cumulative causation processes (Young 1928;

Stigler 1951; Kaldor 1966).

In short, the core of a policy to speed up long-run productivity growth involves a combination of knowledge accumulation and diversification of the productive structure. The first generates the possibilities, while the second materializes them. Both of these dimensions are present in this article, which is organized in five sections. Following this introduction, which also reviews the broad currents of industrial-policy experience during the import-substitution (ISI) period, the second section describes current policy practices in the region and develops a typology of the strategies that underlie them. The third section describes the main lines of action and policy instruments, while the fourth analyses issues relating to the evaluation of their implementation and impact; the fifth section concludes.

Policies to create new sectors were at the heart of industrial policy in the ISI model.<sup>3</sup> Even now, industrial policy is frequently defined as one that seeks to alter the production vector of goods and services (Chang 1994; Melo 2001), which necessarily implies the creation of new activities. The aim of that policy was to complete a country's industrial fabric, endogenizing the effects of domestic demand growth, particularly investment, which would otherwise fuel imports and put pressure on the external constraint. In the 1970s there was a growing perception that the effects of investment were being split in two: on the one hand, an expansion of productive capacity, thereby boosting aggregate supply; but, on the other, a derived demand for capital goods which, owing to insufficient domestic supply, fuelled import demand and thus dissipated the potential spillover effects of the investment on the rest of the domestic economy. At that time, industrial policy, sectoral policy, and policy to develop the production of capital goods, were understood as closely related concepts.

The main tools of industrial policy combined trade protection with promotion of direct investments (frequently state or foreign) and financing by national development banks. The clearest examples in the 1970s, prior to the break triggered by the debt crisis, were the Second National Development Plan in Brazil, and the National Industrial Development Program 1979-1982 in Mexico,

which coincided with the boom in oil exports.

Industrial policies organized the expansion of domestic supply and were at the heart of efforts to plan or program the productive structure. Three interrelated factors strengthened this role: (i) the public-sector development apparatus was organized into sectoral and even subsectoral structures;<sup>4</sup> (ii) private enterprise was also organized in sectoral chambers, which were the principal defenders of the pattern of trade protection; and (iii) international trade negotiations, such as the framework of Latin American Integration Association (LAIA), the Central American Common Market (CACM), the Caribbean Community (CARICOM) or the Andean Pact, were based on negative or positive sectoral preference lists. Although policies tended to focus on the agricultural and manufacturing sectors, the weight of the latter was such that the term “sectoral policy” tended to be confused with industrial policy.

From that central position, industrial policies steadily fell from favor during the 1980s, and were practically excluded from the new economic model that was established along with the structural reforms, at least in its more strict formulation. There were several reasons for this: (i) the public enterprises that had traditionally invested directly in new sectors were either privatized or closed, reflecting the new view that the State should only play a subsidiary role in economic growth; (ii) the need to balance public finances meant eliminating subsidies, particularly fiscal ones, and the subsidy components of credit operations; and (iii) there was a (sometimes controversial) perception that many investments suffered from bad planning, poor project management and corruption, and in some cases were actually useless—the so-called “white elephants.” This loss of legitimacy did not occur in all parts of the world. For example, in several countries of east and southeast Asia, active sectoral policies, sometimes with targeting at the firm level, remained in force until well into the 1990s; but they subsequently faded as those countries gradually, and at different rates, joined the free-market wave and the new international trade regime.<sup>5</sup>

Apart from the economic arguments against industrial policy, political opposition to the new economic model came from agents who supported the previous paradigm, thereby consolidating the “developmentist vs. neoliberal” stereotype. Agents in favor of structural reforms countered that opposition by promoting a discourse that portrayed sectoral industrial policies as a distortion in resource allocation and the cause of fiscal imbalance that fuelled inflationary processes. Although this critical attitude towards industrial policy was shared by a growing number of governments in the region,<sup>6</sup> such an extreme view did not always coincide with the facts. Even strongly reformist Governments, such as those of Menem in Argentina, Collor de Melo in Brazil, and Salinas de Gortari in Mexico, maintained certain sectoral policies, in particular for the automotive industry.

## **Practice and strategy of industrial policies**

### *The region's experience*

Much of the region's current experience in industrial policy is encapsulated in the term “competitiveness policies” (Peres 1997).<sup>7</sup> Ongoing policies in the region can be organized in four broad groups. Firstly, there are policies following the line developed under the ISI model which aim to expand a given sector and deepen it by integrating new segments, through a combination of trade protection, and tax and financial incentives. The regimes covering the automotive industries of the MERCOSUR countries and Mexico, which aimed to organize and expand the investments of auto makers and auto-part producers, provide a clear example of this type of initiative (ECLAC 2004b). Many of the region's countries have provided sporadic support for sensitive sectors (of weak competitiveness) such as textiles, clothing, footwear, electronic products and toys. Numerous examples can also be found of policies to stimulate agricultural and mining production. Although these vary from

country to country, they have generally been much more stable than the incentives given to manufacturing activities. Even in sectors with clear comparative advantages, such as large segments of the agriculture sector, it has frequently been necessary to design support schemes in response to short-term crises<sup>8</sup> or to meet longer-term challenges arising from a relative loss of competitiveness.<sup>9</sup>

In the agriculture sector, several countries (including Central America, Brazil and Colombia) intervene directly in basic grain markets (wheat, maize, rice). Nonetheless, direct market intervention (through guaranteed prices, for example) and the granting of subsidized loans through programs targeting small-scale producers (who tend to be the hardest hit by trade liberalization) are progressively being replaced by horizontal instruments (such as expenditure on animal and plant health, irrigation, or land titling programs) (FAO 2001; ECLAC 2003). Measures with a geographic or local scope are also gaining ground (e.g. tax incentives in poor regions, or comprehensive rural development programs that combine investment in infrastructure with training and technical assistance).

Secondly, a number of measures originally targeted on specific sectors have developed into policies that impact the economic system as a whole. This is the case of policies for the electronics and computer industry, which began as import-substitution policies for hardware and later shifted to supporting the development of an intangible product (software), before being subsumed under policies for the development of information and communication technologies (ICTs), and to promote the information society in the region.<sup>10</sup> The widespread prevalence of scope and networking economies, and complementarity between activities, means that these should be viewed as cross-cutting policies, reaching beyond sectoral or institutional boundaries which, themselves tend to be increasingly ill-defined and vague.

A third group of policies focuses on activities that are highly concentrated as a result of scale and network economies (electric power, telecommunications, oil and natural gas). Policies for these sectors, nearly all of which were decided upon following privatization processes, have aimed to



develop efficient regulatory frameworks, including creation and strengthening of regulatory bodies, adaptation of the legal framework, and efforts to link the expansion of sectoral investments to greater coordination with suppliers located in the country, the intensity of which varies from case to case.<sup>11</sup> In Brazil, technology funds were created to support scientific and technological development programs in each of the sectors in question, using funds obtained from royalties paid by the firms.<sup>12</sup>

A fourth group consists of policies to support clusters, particularly of small and medium-sized enterprises, or activities in which there are many enterprises of that size under the leadership of larger firms. This approach has become increasingly accepted in Andean and Central American countries; and, like other industrial policies, it has been aimed more at increasing the competitiveness of existing sectors than on creating new activities. At the subnational level, significant measures to develop clusters have been implemented in countries such as Mexico and Brazil, such as support for the footwear sector in Guanajuato or the electronics industry in Jalisco, Mexico (Unger 2003; Dussel 1999), or the measures implemented by the Brazilian Small and Medium-Sized Enterprise Support Service (SEBRAE) throughout that country, in the framework of the project to develop local clusters known as APLs (*arranjos produtivos locais*).<sup>13</sup> The legitimacy enjoyed by such policies, even among international financial organizations, has facilitated their acceptance by Governments and resulted in actions being included in this category that have neither a productive-chain nor a geographic-conglomerate scope.<sup>14</sup>

#### *A typology of national strategies*

The revival of interest in active microeconomic and sectoral policies in the mid-1990s generated three ways of looking at competitiveness policies. In some countries, basically Brazil, Mexico and the English-speaking Caribbean, policy documents were designed that specifically targeted the industrial

sector and its linkages with technological development and participation in the international economy.<sup>15</sup> The fact that, strictly speaking, these documents constituted work agendas between the Government and the private sector rather than industrial plans or programs, led their critics to accuse them of being “programs without targets” and even “without resources.”

In the Andean and Central American countries, the predominant approach aimed to enhance the competitiveness of the economy as a whole, without giving preference to the industrial sector; and national competitiveness strategies were based on the cluster methodology, albeit under a variety of names: industrial agglomerations, productive arrangements or conglomerates.<sup>16</sup> From the policy-implementation standpoint, that approach resulted in the negotiation and implementation of sectoral agreements encompassing complete value chains, between private agents and the Government, with the latter playing the role of catalyst or facilitator.

Lastly, Argentina, Chile and Uruguay eschewed industrial policies or national competitiveness strategies, preferring horizontal policies<sup>17</sup> that sought to avoid discrimination between sectors, and were implemented by providing demand incentives for firms, in contrast to the supply subsidies typical of the previous model. Nonetheless, when problems arose that had a clearly sectoral dimension, horizontal policy instruments would be brought to bear, ignoring the fact that this would negate their essentially neutral character. Chile was where this type of intervention was conceptualized and implemented most forcefully, although direct subsidies for the forestry and mining sectors and for export activities were maintained in that country for a long time (Moguillansky 2000).

Unlike other areas of development policy, there is no convergence on sectoral policy among the countries of the region in the early 2000s. Whereas some countries promote a discourse that rejects such policies outright, despite providing ad hoc sectoral support in practice, elsewhere they are recognized as valid for increasing the competitiveness of activities that have potential to break into external markets or are facing strong competition from imports. There is also a double standard in the

treatment of such policies: countries that deny their usefulness, especially when they support the manufacturing sector, use them openly in numerous agricultural and service sectors (e.g. tourism) without making any attempt to legitimize them.

Based on this historical analysis of policy design, the region's countries can be classified or ranked according to three categories: the aim of the intervention, its frequency or intensity, and the degree to which the actions that implement it are coordinated through a broader-scope strategy.

In terms of the *intervention target*, as mentioned above there are three types of country: (i) those that have maintained or even revived sectoral policies; (ii) those in which sectoral policies are basically seen in terms of cluster development; and (iii) countries that have adopted neither of these two perspectives and only use horizontal policies, which, nonetheless, sometimes target a specific sector.

While horizontal policies are broadly accepted everywhere, what distinguishes countries in first two categories is their use of policies that go further. Available information reveals the existence of loans from development banks and fiscal incentives targeting specific sectors.<sup>18</sup> In seven of the region's countries (Argentina, Brazil, Colombia, Costa Rica, El Salvador, Honduras and Mexico) public development banks extend credits with a sectoral focus, while 18 countries have designed tax incentives to benefit specific sectors. Such incentives are non-existent only in Colombia, Guatemala, Haiti, Honduras, Paraguay and Suriname. One form of incentive that is even more widespread consists of special regulations for establishing free trade zones for export or maquila plants.

The overall analysis of the information highlights an initial departure from the practices of the previous model. Whereas, in the latter, manufacturing industry was privileged, now it is one of the sectors of least weight. The most favored activities have been tourism; primary sectors such as oil, mining and forestry; and various services (ranging from infrastructure to cinema). The importance of policies targeting the agriculture sector varies widely between the different countries of the region, if

measured in terms of the public expenditure that implements them (including productive development programs, investments in rural infrastructure and social spending in rural areas).<sup>19</sup> Public development banks meanwhile, make a major contribution to financing that sector in countries such as Argentina, Brazil, Costa Rica, the Dominican Republic or Mexico (Acevedo 2002). Credit is generally extended under near-market conditions, with interest-rate subsidies being provided in programs to strengthen small-scale agriculture.

The foregoing needs to be nuanced by analyzing the credit portfolios of the six development banks in five of the region's countries. Industrial activity continues to absorb roughly half of all credit extended by Banco Nacional de Desenvolvimento Econômico e Social (BNDES) of Brazil, Banco Nacional de Comercio Exterior (BANCOMEXT) of Mexico and Banco de Comercio Exterior of Colombia (BANCOLDEX); and it accounts for roughly 25% of the entire portfolio of Corporación Financiera de Desarrollo (COFIDE) of Peru, and under 15% of the National Banco Nacional de Costa Rica (BNCR) and Nacional Financiera (NAFIN) of Mexico. Given that BANCOLDEX and BANCOMEXT make loans to finance foreign trade, of the six institutions, only BNDES would seem to play a major role in financing productive activity in the industrial sector aimed at the domestic market, with total lending of over US\$5.8 billion in 2002.<sup>20</sup>

Secondly, countries differ in the **frequency or intensity** with which they implement sectoral policies: countries that implement a wide range of measures at the sector level (e.g. Argentina, Brazil, Colombia, Guyana, Mexico, Uruguay and Venezuela); those that support only a few activities (Bolivia, Chile, the Dominican Republic and Peru, among others); and countries where such policies are virtually non-existent (Haiti, Paraguay and Suriname). The intensity of sectoral policies can be detected through measures that do not involve fiscal and financial subsidies, such as in Colombia, which has a very active policy of sectoral agreements that are not based on this type of incentive, or in El Salvador, which has an active policy in support of clusters (Alonso 2003).

In Mexico, the 2002 Economic Policy for Competitiveness specifies a total of 12 priority sectors as the targets of sectoral programs, of which four are currently in operation (fibers-textiles-clothing; leather-footwear; electronics and high-technology industries; and software), Progress has also been made in relation to the automotive industry, maquila exports and the chemical industry.<sup>21</sup> In November 2003, the Brazilian Government announced Guidelines on Industrial, Technology and Foreign-Trade Policy, which set out its strategic sectoral alternatives in four knowledge-intensive activities: semiconductors, software, pharmaceuticals and medicines, and capital goods, and the creation of an institution to coordinate implementation of that policy, the Brazilian Industrial Development Agency.<sup>22</sup> After 2003, Argentina has selected nine production chains to be supported by the Programa Foros Nacionales de Competitividad Industrial de las Cadenas Productivas (wood and furniture, leather and leather products, textiles and apparel, agricultural machinery, building materials, software, biotechnology, natural gas for automobiles, and cultural industries).<sup>23</sup>

Some countries, such as Costa Rica, Peru and Uruguay, target development actions in even greater detail, supporting individual projects in certain firms. Examples include investment incentives in megaprojects in the Peruvian mining sector,<sup>24</sup> measures taken by the Government of Costa Rica to encourage INTEL to establish operations in the country,<sup>25</sup> or tax exemptions in support of projects declared to be in national interest in Uruguay.<sup>26</sup>

The third category — the degree to which measures are coordinated — entails considering an additional dimension within the rationale of those policies, namely their integration or lack of integration in a more general national strategy. Here again countries fall into three categories: countries with frequent measures contained in explicit public-intervention strategies, generally expressed through official plans or programs (e.g. Brazil, Colombia, El Salvador and Mexico); those with frequent measures but no explicit strategy (Costa Rica and Uruguay); and countries that implement measures sporadically (the vast majority).

The three categories considered have remained very stable in each country over time, reflecting their capacity and experience in industrial policy design and implementation. Changes of government, even when that entailed a sudden break with the country's past policy, such as in Mexico in 2000 or Uruguay in 2005, have not produced major changes in attitudes towards industrial policies. Two examples, albeit in different directions, are the continued minor importance of sectoral policies in Chile, and the continuity of sectoral agreements (export competitiveness) in Colombia during the Governments of Presidents Samper, Pastrana and Uribe. Such agreements encompassed 41 productive chains and sectors accounting for 86% of all non-traditional exports.<sup>27</sup>

Although definitely positive, this display of institutional maturity should not be overstated, because regional experience also abounds in examples of programs that were developed to alleviate efficiency problems but came to nothing.<sup>28</sup> Even Brazil's policy for the automotive industry contains elements that suggest the rescue of a sector in crisis that is unable to face external competition — i.e. industrial restructuring, as it used to be called in the 1980s (Bonelli and Motta Veiga 2003).

### **Lines of action and instruments**

As has been stated repeatedly in the literature,<sup>29</sup> the region's competitiveness policies, including those with a basically sectoral scope, have focused much more on enhancing the efficiency of existing sectors than on creating new ones — an emphasis that is consistent with the search for greater penetration in international markets, founded essentially on static comparative advantages (unskilled labor and natural resources). This has been the case both in countries with a diversified productive structure, such as Brazil and Mexico, and in those that are more specialized. In the more diversified countries, it could be argued that there are few non-existent sectors, so a sectoral policy would only be detected at the level of specific products. Although that is true, the evidence, especially in Brazil and to

a lesser extent in Mexico,<sup>30</sup> suggests that sectoral measures have focused on strengthening and expanding pre-existing sectors. The clearest example is the automotive industry, as mentioned above.

The creation of new activities appears sporadically as a policy objective, and two basic lines of action have been pursued for this purpose: international trade negotiations to ensure market access, based on bilateral or multilateral free-trade agreements, and the attraction of foreign direct investment (FDI) to develop export platforms, including activities in duty-free zones and maquila plants.

In most countries of the region, policies to attract FDI have been the key mechanism used to develop new sectors. Policy initiatives include a deepening of Mexico's export platform in the framework of NAFTA (automobiles and auto parts, electronics and clothing); promotion of the most elementary activities of first-generation maquila industries in a number of Central American and Caribbean countries (clothing); and investments in privatizations in the services and primary sectors in South American countries (Mortimore 2002; Peres and Reinhardt 2000). The different combinations between sector-level public policy and the strategies of the transnational enterprises providing FDI have been the main determinants of activities resulting in more diversified productive structures. Nonetheless, this has clearly had limitations, such as low levels of value-added resulting from a focus on assembly activities with weak linkages to the rest of the domestic economy.

The instruments used to attract foreign enterprises can be classified into three broad groups (Mortimore and Peres 1998): (i) attraction on the basis of incentives, essentially of the free-zone and fiscal type; (ii) attraction based on rules, i.e. creating efficient business conditions — rule of law, transparency, assured access to international markets, efficient infrastructure, etc.; and (iii) attraction based on the creation of specialized factors of production, particularly skilled labor. Although the region's countries have applied these three types of instrument with varying degrees of intensity, with few exceptions the first two have predominated.

In addition to specific instruments for attracting FDI, two others have targeted investment of

any type (i.e. domestic or foreign). Besides financial and fiscal incentives, they include a broad set of measures whereby Governments seek to establish competitive environments for enterprises to operate in (defense of competition and regulation of monopolies), lower transaction costs (e.g. reduction of administrative controls), or to promote the exploitation of scale economies based on collective action by firms (sectoral agreements across productive chains, support for partnerships between firms, etc.).

The remaining lines of policy designed in the region can be organized in three groups: winning policies, losing policies and emerging policies (Peres 1997). Winning policies include those that are generally accepted by Governments, i.e. they enjoy strong legitimacy. In addition to the policies for export development and FDI attraction mentioned above, this group also includes policies to promote technological development, human resource training, and small firms and microenterprises — generally by supporting the establishment or consolidation of business networks or clusters — and productive development at the local or subnational level, the latter two being closely linked. Recently, policies to foster innovation are increasingly accepted throughout the region, as it is shown by the number of science and technology plans released in the last couple of years, even in some of the smallest countries.<sup>31</sup> Acceptance of these policies stems from their assumed neutrality since they act on productive markets (technology and training), or because of their (also supposed) positive impact on job creation, basically at the subnational or local level.

Losing policies, in contrast, are most clearly contrary to the existing development model based on trade openness and the reduction of the public-sector deficit. They include direct fiscal subsidies, directed credit with subsidized interest rates, foreign trade tariffs, and use of the power of State procurement. In terms of the latter, the situation varies from one country to another: while some use it nationally or subnationally, as in the program for the support of software production in Mexico, mentioned above, in other countries it is off the policy agenda because its use is deemed contrary to the goals of expenditure efficiency and transparency. Given that financial and fiscal subsidies are



instruments for the implementation of the winning policies, a sharp contradiction arises. Policy implementation suffers from the fact that governments that want to support industrial development through the winning policies are seldom able to implement them because of the lack of effective action in the fiscal and financial fields.

Lastly, emerging policies — which, among other things, encompass defense of competition, improvement of corporate governance regimes, regulation of infrastructure sectors where markets do not operate efficiently, or business social responsibility — while enjoying great legitimacy, have yet to reach maturity, and their development varies widely across countries. Some countries have modern legislation and relatively strong institutions to implement them; whereas in others, they are still at the discussion and decision stages, and in some cases such policies are not yet a significant item on the policy agenda.

Aside from national differences, the region displays strong convergence in terms of the content of policy documents over the last decade, centered around four basic elements: (i) emphasis on increasing international competitiveness; (ii) generalization of the legitimacy of horizontal or neutral instruments, which, as mentioned above, are actually far from horizontal or neutral ex post; (iii) support for small businesses and microenterprises, basically for reasons linked to their job-creation capacity; and (iv) the focus of attention on subnational or local economic areas. Programs to support clusters provide the clearest examples of at least three of these elements, and the SEBRAE program to support APLs in Brazil is possibly the most important in the region.

### **Evaluation of implementation and impact**

Evaluation of the implementation and impact of the policies that have been applied is hampered not only by a lack of available information, but also because the design of the instruments deployed seldom

explicitly establishes the criteria and mechanisms to be used to evaluate them. This is compounded by the technical complexity of evaluating policies that contain numerous objectives and lines of action. Data on the financial resources channeled into programs or projects are scarce,<sup>32</sup> so it is hard to conduct an overall assessment. Nonetheless, with few exceptions, it appears that many of the policies announced in the region have not actually been implemented — as shown in Peres (1997), and in particular the analyses of Alonso (2003a) on the situation of the five Central American countries, and by Fairbanks and Lindsay (1997) on the Andean countries that designed competitiveness strategies based on a cluster approach.

Various factors can be blamed for widespread implementation failures (government failings) and the consequent shortfall between what was decided and what was actually executed in the studies mentioned:

The inclusion of *non-operational or unachievable goals* in policy design, which shifts the real decision on their effective implementation to the budgetary appropriation stage. In such cases, the problem consists of shortcomings of design, the contents of which often are more declarative statements than instruments of resource allocation. An evaluation of success factors in the 41 Colombian sectoral agreements shows that: (i) those with well-structured, quantifiable commitments and specific time horizons are easier to monitor and fulfill; (ii) agreements with few and simple commitments tend to be more successful; (iii) the leadership and decision-making power of the individuals who negotiate the agreements play a fundamental role; and (iv) chains in which work is carried out prior to the agreements achieved better results.<sup>33</sup> As practice in the region often makes no attempt to take these success factors into account, policy documents tend to be shopping lists of needs and objectives. Although the multiplicity of goals may reflect the involvement of many stakeholders in complex societies, it also indicates an inability to choose priorities and build consensus around a small number of implementable goals.

*Lack of human and financial resources to implement policies.* This is particularly serious in the smaller and poorer countries which often depend on external funding (loans or grants) to design and implement their programs. In addition to a lack of resources, policies are usually announced without considering their cost and the corresponding financing, assuming once again that “first we decide and then we see what can be done and with what resources.”

Nearly all of the region’s countries display weak institutional capacity for policy implementation, even in policies that are not complex. This shortcoming is greater when policies aim to approach best international practice, rather than respond to the needs of the countries interested in applying them. This results in designs that are disconnected from reality, often promoted by State mechanisms of little weight in the power structure of Governments, or business associations that are unrepresentative and have little economic and political weight, which makes the situation even more difficult. The problem is further aggravated by the regional tendency to separate the design of policy instruments from their implementation. Although countries can increase their institutional capacity over time, and some have done so in the region, institution building and innovation require stability of objectives for longer periods than those typical of a government in the region (between four and six years), together with financial resources that confer action capacity. In that regard, the wide range of tax burdens in the region’s countries, from less than 10% to over 30% of GDP, introduce structural differences in terms of what can be achieved in this domain.

*Government agreements to implement policies with the private sector are weak,* as can clearly be seen when executing public expenditure or investment commitments in conjunction with the private sector. There is also a proliferation of plans and programs designed merely to respond to political pressures from economics stakeholders, obtain international funding or comply with legal or constitutional provisions. The strength with which the business sector defended protectionism until the late 1970s has not been seen in its promotion of policies to diversify and enhance productive

specialization in the countries of the region.<sup>34</sup>

In the case of industrial policies, implementation problems are compounded by the weak economic signals emitted by programs that seek to create or expand new activities. Compared to the strength and clarity of the signal associated with trade protection, which made it possible to fix domestic prices and thus maximize profitability (typical of the ISI model), now, at best, the entrepreneur is offered a package that is complex to conceptualize and operate, and whose impact on profitability is uncertain and far from clear. It is hardly surprising that there is such a perception that “policies do not work.”

Implementation failures and the perception that “policies do not work” undermine their legitimacy and the interest they arouse, especially among their main targets, namely entrepreneurs. This gives rise to the paradox that entrepreneurs bemoan the lack of resources available for policies, while at the same time failing to make full use of what is available. Overcoming these implementation failures and making sure that instruments designed actually function, is one of the key challenges facing productive development policies

Despite the problems outlined above, progress has been made on relations between public authorities and business chambers for policy design and, in some cases, implementation. Although stand-off situations still persist, as mentioned above, significant progress has been made in developing public-private dialogue. The process has gone beyond strengthening of dialogue and has now reached a stage in which the leadership of policy proposals has often been exercised by business entities. Examples include the Asociación Nacional de Industriales (ANDI) of Colombia, the Confederación de Cámaras de la Industria de Transformación (CANACINTRA) in Mexico, the Asociación de Industriales in the Dominican Republic, the Cámara de Industrias in Costa Rica, or the Federación de Cámaras Industriales de Centroamérica (FECAICA), which promoted the industrial modernization agenda in Central America. In these countries and elsewhere, it is even possible to speak of public-

private co-responsibility in policy formulation, rather than mere policy consensus (Peres 1997).

Business chambers have also participated actively in negotiating forums to design measures in support of competitiveness, such as the National Competitiveness Council in Colombia, the Productive Development Forum in Chile, or the sectoral forums in Brazil.<sup>35</sup> In some cases, long-term proposals have even been made to stabilize policy design beyond government terms of office, as happened for example with “Visión 2020” promoted by the Mexican Confederation of Industrial Chambers (CONCAMIN).

Policy coordination with other civil-society organizations has been much weaker. Although labor unions have participated in discussion forums, in general their presence has not been decisive for the dynamic of such mechanisms. An exception, however, is the role played by unions in the sectoral chamber of the automotive industry in Brazil. Other bodies have played an even smaller role, an exception being participation by the academic sector in the efforts made by the National Competitiveness Council in Colombia.

The situation in terms of impact evaluation is equally unsatisfactory. Although there are evaluations of a number of specific programs, such as those supporting small businesses in Chile,<sup>36</sup> together with general assessments of what happened after policy implementation, these do not make it possible to specify the causes of the events they describe. Examples include the expansion of non-traditional exports in chains with sectoral agreements in Colombia (Velasco 2003); growth of mining exports in Peru (Fairlie 2003); income growth among rural producers, and even increased productivity of their land plots, based on large-scale Mexican agricultural programs (Villagómez 2003); and discussion on whether or not self-employment incomes have risen among producers supported by the National Institute for Agricultural Development (INDAP) in Chile (Kjöllerström 2004).

The shortfall between what is decided and announced and what is actually done and evaluated, naturally raises the issue of what can be done to rectify the situation. Lines of action in three mutually

non-exclusive groups seem promising and call for more in-depth analysis.

Firstly, policy design should be accompanied, not followed, by explicit consideration of the institutions that will have to implement them. This means industrial policy stakeholders becoming involved in issues relating to reform of the State. The structure of the latter continues to respond to realities organized on the basis of productive sectors and subsectors, while seeking to implement systemic or crosscutting policies, which, by definition, encompass more than one sector or implementing entity. This is particularly important for policies that evolved from the strictly sectoral towards a more general scope, such as strategies to support the dissemination and use of information and communication technologies, whose crosscutting nature has been referred to before. Although reform of the State and the consequent institutional development are not issues that are close to the industrial organization specialist, they need to be addressed to reduce implementation failures.

Given the lack of human resources skilled in areas of the State relating to policy implementation, a second type of measure would involve reassigning highly qualified personnel from design areas to implementation. This would not undermine capacity-building measures, because their time horizons are different; while the latter necessarily operate in the long term, human resources could be reallocated in the short run. It should not be assumed that this reallocation will entail high costs, in terms of both efficiency and personal careers; but it is an alternative if the foregoing diagnosis is accepted.

A third line of action is to develop and strengthen the operators of policy, i.e. the institutions and individuals that have to combine design and implementation. Three courses of action are available for that purpose: strengthen public institutions; search for leaders in the private sector; and strengthen intermediate agents such as business associations and NGOs.

Long-term institutional development in the State is a reality both in ministries responsible for macroeconomic policy and in the region's central banks; such experience could and should be

replicated in areas linked to industrial development. Private leadership of policies has been efficient in some cases (e.g. in the development of a number of local clusters), and should be used whenever possible; but experience in the region shows that it is hard to systemize and is not distributed according to implementation needs. Thus, economically weak areas that need major efforts from policy operators tend also to have weak leaderships. The strengthening of intermediate implementation bodies has been a successful strategy in countries such as Chile, where it has been used to implement productive coordination promotion programs (PROFO), although the predictable problems of adverse selection and moral hazard still arise.

None of these measures is a panacea, or easy to implement; but they do open up alternatives and deserve to be explored from perspectives that combine the economic, institutional and management dimensions.

## **Conclusions**

The review undertaken in this article shows that Latin American and Caribbean countries have alternatives to develop policies to improve their productive specialization, and they have used them to formulate three types or modes of policy, reflecting the objectives, experience and economic and institutional capacities of each country. Actions that range from direct sector-based interventions to horizontal policies focused on specific sectors (including cluster promotion based on a value-chain approach) have been designed, but seldom implemented.

Industrial policies are the core of specialization or diversification strategies. Four points need to be considered when proposing such a strategy: criteria for selecting the sector to be promoted; the policy instruments that are available; constraints imposed by the size of domestic markets and the accumulated capacities of the various countries in the region; and the political will that exists to deploy

this type of measure.

The choice of sectors should recognize that, while there are no universally used criteria for deciding which activities to promote, extensive international experience shows that countries have in fact chosen and continue to choose sectors; and they do so on the basis of a few more or less precise criteria. These include the knowledge-intensity of the activities in question; their dynamism in the international market as a result of high elasticity with respect to world income, particularly that of developed countries; and the potential for productivity growth.

These criteria are supported by others related to the “strategic” nature of certain activities, which basically reflecting their importance in output, exports, or employment, usually at the national level, but also with a local or subnational dimension. The policy review undertaken in the previous sections amply demonstrates how those criteria have been used, albeit not always explicitly, in the countries of the region.

As from the 1980s, the technological dimension has increasingly been used to define the scope of industrial policies. Although a group of activities has traditionally been thought of as a sector when all of them produce goods or services with high price cross-elasticity, it is also possible to define as a “sector” activities that share a technological path (Robinson 1953). One can therefore speak of the aerospace, biotechnology, or information and communications technology sectors. To promote activities encompassed by a given terminology, there are as many experiences centered on horizontal policies as others involving direct intervention at the level of firms, market segments or knowledge networks. As in the case of productive coordination, where industrial policies tended to be expressed through policies to promote clusters, in this field such policies are confused in practice with innovation or technological development policies.

As policies acquire systemic scope, their impact on competitiveness in the economy at large requires special attention. The higher costs associated with the initial stages of learning curves should



not be so high that they endanger the competitiveness of firms that use new goods or services that are being incorporated into the basket, particularly when those firms have a strong foreign-trade orientation. The balance between supporting the diversification of the domestic productive structure and taking advantage of opportunities to import cheaper capital goods or better technology is not easy to strike; it can only be found through processes of experimentation, and trial and error — i.e. pragmatic rather than doctrinaire policies. As pragmatic policies are frequently of a reactive type, a major challenge for the region is to combine pragmatism with much more proactive policies.

The tools available to implement this type of policy are well-known and present in the policy discourse in Latin American and Caribbean countries. The big difference with respect to past experience in the region and elsewhere stems from the current open-economy scenario, in which it is impossible to use instruments involving widespread and permanent trade protection. This constraint weakens the economic signal (expected profitability) sent to potential investors in new activities, and causes a significant portion of the cost of development activities to fall on the fiscal area. This leads to problems, both in setting priorities for the allocation of budgetary resources, and for the stability of those resources at times of fiscal constraint. The sustaining of long-term development instruments, possibly spanning more than one government term, remains a challenge that the countries of the region have so far been unable to tackle successfully. Another powerful tool of sectoral policy, direct investment by the State, is off the policy agenda in most countries; but the degrees of freedom in this subject are large, as shown by various experiences, particularly at the local or subnational level. Experience in the region seems to suggest that the policy packages applied thus far have not had the inductive force of protection, although the cumulative effects remain to be evaluated

Apart from these constraints, it has been argued that small countries with less institutional capacity not only should not develop policies of sectoral scope, but in fact cannot do so. Without denying the importance of using the domestic market to achieve economies of scale and learning, it

should be remembered that the issue is less important in open economies, as shown by the experience of numerous small countries that operate as highly competitive export platforms. Although institutional capacity can also be a major constraint, especially in the short run, this does not mean it is impossible to implement productive development policies, rather that their scope should be in accordance with those capacities. In other words, the alternative is to focus efforts down rather than shooting wildly into the air. In this regard, the region's experience of cluster policies shows that even small countries have been able to formulate policies to improve their pattern of specialization.

Despite these considerations, from the standpoint of political will, sectoral measures face ambivalence in the region — enjoying high levels of legitimacy in some countries, although always less than during the ISI period, but very low levels in others. Nonetheless, even in countries that do not consider them legitimate, actual practice is far more ad hoc, and often specific measures are implemented to support sectors in crisis. Given the need for these policies to move development forward in the region, it is worth asking what needs to be done to increase their legitimacy.

There are two priority areas of action. Firstly, implementation capacity needs to be improved, to narrow the gap between policy design and institutional capacity for effective implementation, the persistence of which undermines the credibility of policy makers and hence the policies themselves. Secondly, significant progress also needs to be made in evaluating the impact of the initiatives implemented in terms of their ultimate objectives: economic growth, technological progress, increased productivity. When public resources are scarce, only robust evaluations can create space to divert resources from other policy areas to these ones.

Although these points are not new, they are crucial.<sup>37</sup> Some progress has been made on this issue, an example being the Business Development Program of Mexico 2001-2006, which explicitly mentions quantitative targets,<sup>38</sup> thereby demonstrating clear progress with respect to previous programs. Nonetheless, progress at the regional level is clearly insufficient. This is very serious for

policies that have to justify their own *raison d'être* and compete for fiscal resources with others that enjoy greater legitimacy, such as basic education, public health or citizen safety. As these policies are crucial for diversifying the productive structure and quickening the pace of productivity growth, industrial policies need to regain their legitimacy by demonstrating their impact.

From a broader perspective, some crucial questions remain unanswered.

If, in the late 1990s, an analyst who advocated industrial policies had been asked to design an ideal political scenario for their acceptance and implementation in the region, he or she hardly could have hoped for a better environment than that which exists today. At present, halfway through the current decade, parties or coalitions of parties that based much of their long-term adversarial platform, in almost every instance, on the rejection of “economic *laissez-faire*” are in power in Argentina, Brazil, Bolivia, Chile, Ecuador, Nicaragua, Uruguay and Venezuela. Production development policies – including industrial policy – had frequently been mentioned by these parties as a substantive part of their strategic guidelines for achieving sustainable development with greater social justice.

Reality appears not to have fulfilled those expectations. The dominant perception today is that, where policy development is concerned, the most significant developments have taken place in Brazil, where industrial, technological and foreign-trade policy guidelines were approved in 2003, and an industrial development agency with a coordinating role was created in 2005. The 2006 development plan adopted in Bolivia includes a chapter on the subject, and interest has been expressed in Argentina in the implementation of programs to strengthen production chains. In Chile, Uruguay and Venezuela, there is no evidence that any significant decisions have been made in this field, despite partial information on strategy and policy debates within the governments of those countries. Even in the most advanced example of policy development and actions (Brazil), the perception is that little has been done in terms of what is needed to change the productive structure of the country, and that the most significant actions are still those of BNDES and, more recently, those of sectoral funds. In short, there

has been no significant effort in any of the countries mentioned above to change the current model, in terms of its pattern of productive specialization, through the application of industrial policies.

Two explanations may be attempted. The first would be that the discourse of the opposition was rapidly constrained, upon its rise to power, by the pressure of global markets and the existing consensus as to what constitutes a “responsible” macroeconomic policy, and that, as part of the same move toward international acceptance, the discourse of structural change was relegated to second or third place. The fact that structural change measures were correctly assumed to be expensive, and to produce doubtful results that could only be achieved in the long term, could not but speed their decline, even within the official discourse.

Another explanation might be that, without denying the significance of the factors mentioned above, the structural-change or industrialist discourse lacked the strength to show that it could be translated into specific operational proposals, capable of yielding at least a few results that were attainable within the space of a single administration (four to five years). If the second explanation is correct, one might conclude that the chief concern of structural policy analysis should be to pay attention to governments that wish to carry out such policies, do not know how to do so and, if they did, would scarcely have the time needed for those policies to yield results that strengthen the government and allow it to remain viable.

Even if policies to diversify the productive structure can technically demonstrate their capacity to generate positive impacts, it is by no means clear which social stakeholders would be interested in generalizing them in the region’s countries. In other words, which stakeholders are likely to put their economic and political resources behind initiatives that go beyond support for cluster development, when the vast majority of them do not have an abundance of resources? Industrial policies have been making a (slow) return in Latin America and have been able to operate, albeit on a small scale, in open economies and with orthodox macroeconomic policies—contrary to the previous conventional wisdom

that they were incompatible. Enhancing their, if not minimal, then at least marginal status, requires social stakeholders, including the State, to take ownership of them and commit their power and resources behind them. And therein lays the rub: who are the stakeholders interested, or likely to be interested, in supporting proactive industrial policies with the power and resources to change the current pattern of productive specialization?

## Notes

- <sup>1</sup> The views expressed in this document, which has been reproduced without formal editing, are those of the author and do not necessarily reflect the views of the Organization.
- <sup>2</sup> This paper has benefited from comments by the participants at the second meeting of the *Task Force on Industrial Policy* of the *Initiative for Policy Dialogue* (IPD), held in Rio de Janeiro in March 2005. In particular, the author is grateful for comments made by Antonio Barros de Castro (who was the main discussant), Alice Amsden, Giovanni Dosi, Bernardo Kosacoff, Yevgeny Kuznetsov, Richard Nelson, Gabriel Palma and Annalisa Primi. Parts of this paper have already been published in ECLAC (2004a), chapter 8.
- <sup>3</sup> In this article, the terms “industry” and “industrial” are used in a broad sense to include, not only manufacturing industry, but also non-manufacturing sectors such as agriculture and mining.
- <sup>4</sup> For example, Ministries of Industry, Agriculture, Mining and others, and the corresponding general directorates for food, metal manufactures and machinery, chemicals, capital goods and so forth.
- <sup>5</sup> Although the debate on the effect of industrial policies in Asia is very wide-ranging and has not yet concluded, the 1997 crisis significantly diverted attention away from the “Asian Miracle.” For arguments in favor of such policies, see Amsden (1989), Rodrik (1995) and Wade (1990); for the opposite view, see World Bank (1993), Krugman (1994), and, more recently, Noland and Pack (2002). On the other hand, the agricultural policies implemented in industrialised countries show that sectoral policies are by no means peculiar to a number of underdeveloped countries in the past.
- <sup>6</sup> In the early 1990s, it was frequent to hear high-ranking macroeconomic policy officials propounding the view that “the best industrial policy is no industrial policy.” Although simplistic, that phrase aptly reflected their position on the subject.
- <sup>7</sup> Issues relating to the impact of economic reforms and of macroeconomic policy on the industrial dynamic are outside the scope of this article. Nonetheless, it has to be stressed that reforms such as trade openness or privatisation, and monetary and exchange-rate policy measures, have often had a major impact on that dynamic, thereby making it possible to classify them as genuine “implicit industrial policies”. These implicit policies were often decided upon without adequate knowledge of the microeconomics of the region, i.e. the specific dynamics of its enterprises and markets. See Stallings and Peres (2000).
- <sup>8</sup> For example, tax exemptions extended to sheep meat producers during the foot-and-mouth crisis in Uruguay, mentioned by Scarone (2003). Data for Brazil in 2003 show significant support for sectors such as electric power (US\$1 billion in BNDES credit lines to capitalize 24 distribution firms); information technology (a US\$500 million reduction on the industrialized products tax — IPI); automobiles (a US\$120 million reduction in IPI for small and medium-sized vehicles); and electrical appliances (US\$70 million in credit lines), see Balbi (2003).
- <sup>9</sup> Some examples are “sun-and-sand” tourism in much of the English-speaking Caribbean (Hendrickson, 2003) and the productive restructuring that seeks crops of higher potential, value-added and market opportunities, as a goal of the *Alianza para el Campo* in Mexico (Villagómez 2003).
- <sup>10</sup> For a general discussion of this subject, see ECLAC (2005); for national analyses, see Bonelli and Motta Veiga (2003), for Brazil; Scarone (2003), for Uruguay; and Henry (2003), for the Caribbean.
- <sup>11</sup> See Sergeant et al (2003), for Trinidad and Tobago.
- <sup>12</sup> Similarly, in Chile rents from copper mining will be channeled to support innovation through R&D as an instrument of the National Innovation Strategy for Competitiveness released in February 2007.
- <sup>13</sup> In an APL, a large number of firms operate around a productive activity that is predominant in a given location, with shared forms of cooperation and governance mechanisms. Measures to support APLs are implemented locally, reflecting the Brazilian experience that state-level policies tend to have a substantial sectoral component. Examples of this are programs to support the automotive industry (subsidies and even capital contributions from a number of state governments), electronics and information technology, textiles, clothing and footwear. See Bonelli and Motta Veiga (2003).
- <sup>14</sup> See Velasco (2003) on sectoral agreements in Colombia.
- <sup>15</sup> Pérez (2003) highlights the intensity of sectoral incentives in the Caribbean economies, particularly in member countries

of the Association of Eastern Caribbean States, and in Barbados and Guyana, the latter having the broadest package of incentives in the region. Those incentives basically target the manufacturing and service sectors, particularly hotels and tourism (Hendrickson 2003).

- <sup>16</sup> This approach was developed on the basis of Porter (1990), and was materialized in papers by *Monitor Company* in the Andean countries in the early 1990s, and in the project entitled “Central America in the twenty-first century: An agenda for competitiveness and sustainable development,” coordinated by INCAE/CLADS in the middle of that decade.
- <sup>17</sup> The term “neutral” or “horizontal” policy, which is widely used in the region, conceals the fact that any policy is bound to favor some sectors more than others *ex post*. This is because such policies aim to enhance the operating efficiency of markets for factors of production which are used with varying intensity according to the sector or product in question. In some cases, policies are presented as neutral to gain greater legitimacy, despite being aimed at specific sectors from the outset. This frequently happens with technological development policies.
- <sup>18</sup> The available data does not make it possible to quantify the implicit subsidies in credit operations and fiscal incentives. For a detailed analysis, see Melo (2001).
- <sup>19</sup> Annual expenditure per producer amounted to US\$900 in Chile and Mexico in 2000, but was less than US\$50 in Bolivia. In that same year, agriculture expenditure as a percentage of sectoral GDP was 35% in Mexico, 21% in Chile and slightly over 5% in Bolivia (Kerrigan 2001).
- <sup>20</sup> In the NAFIN portfolio the “Other” category, which represents 97% of the total, probably includes operations targeting the domestic productive sector. See ECLAC (2004a), table 8.2.
- <sup>21</sup> The remaining five sectors are aeronautics and agriculture, tourism, commerce and construction. *Economic Policy for Competitiveness* (website of the Ministry of Economic Affairs, October 2005, <http://www.economia-cgm.gob.mx/?P=1131>).
- <sup>22</sup> The document in question states that those sectors were selected because (i) they display sustained and increasing dynamism; (ii) they account for significant proportions of international investments in research and development; (iii) they open up new business opportunities; (iv) they are directly related to innovations in processes, products and modes of use; (v) they increase the density of the productive fabric; and (vi) they are important for the future of the country and have potential for the development of dynamic comparative advantages (Ministry of Development, Industry and Foreign Trade, 2003, p. 16). These guidelines were strengthened by the Growth Acceleration Program, enacted in February 2007, which relies mainly on fiscal incentives.
- <sup>23</sup> See Subsecretaría de Industria, <http://www.industria.gov.ar/foros/institucional.htm>.
- <sup>24</sup> In Peru, the main policies implemented in support of the mining sector in the 1990s were as follows: promotion and guarantees for foreign direct investment; privatization of State-owned enterprises; approval of a framework law guaranteeing free enterprise and private investments; tax, exchange-rate and administrative stability; modernization of the mining concessions process; tax benefits (reinvested profits are exempt from income tax); tax incentives for investment in megaprojects (income-tax exemptions and advance drawback of the general sales tax). See Fairlie (2003).
- <sup>25</sup> See Alonso (2003).
- <sup>26</sup> The 1998 Investments Act allows the Government to promote specific investments by declaring a project to be in the national interest. Benefits can be general or specific to a given project (e.g. tax exemption for real estate property). General benefits can be automatic (e.g. exemption from the wealth tax on movable property destined for the productive cycle), or discretionary (not regulated as of mid-2003). See Scarone (2003).
- <sup>27</sup> Of these, 31 are national and 10 regional; 29 correspond to goods and 12 to services. Not all of them are programs for productive chains strictly defined; some target specific sectors (potatoes, farmed shrimp, tuna, trawled shrimp, flowers, coffee and bananas). The relatively loose application of the productive-chain concept reflects the fact that most of the agreements were signed for pragmatic reasons aimed at mobilising entrepreneurs (Velasco, 2003).
- <sup>28</sup> See Scarone (2003) on most policies in Uruguay; Villagómez (2003) on the 2002-2010 electronics industry program in Mexico.
- <sup>29</sup> IDB (2001), Melo (2001), Peres (1997).
- <sup>30</sup> See Bonelli and Motta Veiga (2003) for Brazil; Unger (2003) and Villagómez (2003) for Mexico.
- <sup>31</sup> Some examples are the *2006-2010 National Science, Technology and Innovation Plan* in Panama issued in 2006, the

15-year Chilean *National Innovation Strategy for Competitiveness* and the Colombian *National Science, Technological Development and Innovation Plan*, both released by early 2007.

- <sup>32</sup> The best documented cases relate to funds allocated to agriculture policies, in particular in the framework of large-scale programs such as PROCAMPO, Alianza para el Campo, and the marketing support program in Mexico; see Kjöllnerström (2004); Villagómez (2003), for Mexico; Scarone (2003), for Uruguay.
- <sup>33</sup> Velasco (2003).
- <sup>34</sup> Moreover, differences between the government and the private sector, although less than before, are far from having disappeared, as shown by Alonso (2003) for Guatemala and Scarone (2003) for Uruguay.
- <sup>35</sup> In Brazil, the expression “câmara sectorial” [sectoral forum] does not refer to a business association, but to a tripartite Government-entrepreneurs-workers negotiation space.
- <sup>36</sup> For that country, see the evaluations of development programs in Silva and Sandoval (2003).
- <sup>37</sup> This idea has already been highlighted in Peres (1997), Stallings and Peres (2000), and Peres and Stumpo (2002).
- <sup>38</sup> The program proposes to create a public evaluation system including strategic indicators, oversight mechanisms, coordination and participatory evaluation mechanisms, periodic accountability, and a monitoring unit for micro, small and medium-sized enterprises, as an information source. Secretaría de Economía (2001), p. 56.



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