

# The slow comeback of industrial policies in Latin America and the Caribbean

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**T**he core of a policy for accelerating economic growth is a combination of knowledge accumulation and diversification of the productive structure. These two dimensions are the focus of the present article, which examines industrial policy experiences during the import substitution industrialization period; highlights the policies currently being applied in Latin America and the Caribbean and offers a typology of the strategies underlying them; presents the main lines of action and policy instruments; and analyses issues of policy implementation and impact. The thesis is that, while policymaking capabilities have improved, a great deal of work is still needed on implementation and on the development of effective impact evaluation methodologies. Proper evaluation will show whether industrial policies have a role to play in the region.

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# I

## Introduction

This study sets out from the hypothesis that policies to create new production sectors or modernize mature ones are needed in Latin America and the Caribbean in order to boost development, subject to the constraints represented by the size, existing development level and productive structure of the different national economies.<sup>1</sup> By improving the product mix and the vector of international specialization, diversification of the productive structure has a vital role to play in closing the productivity gap between these countries and those at the international technology frontier and thus in accelerating overall productivity growth in open economies. Such diversification results in better domestic linkages, strengthening the positive impact of economic growth on overall productivity (Cimoli, Correa and Primi, 2003).

Policies to strengthen individual sectors can increase the density and complexity of a national productive structure, and these in turn are positively correlated with the stability of a country's growth rates and the speed and flexibility with which it responds to external shocks (Castaldi, 2003). The effect of productive complexity is to create internal counterweights to the transmission of shocks, thus generating automatic stabilizers. Specialization with a higher knowledge content and diversification are both important to allow full advantage to be taken of the growing returns to scale implicit in technical progress, leading directly to virtuous cycles of cumulative causality (Young, 1928; Stigler, 1951; Kaldor, 1966).

In summary, the key to any policy for accelerating productivity growth in the long term has to be a combination of knowledge accumulation and diversification of the productive structure. The first

creates the opportunities; the second means that they can be capitalized upon. Both dimensions are dealt with in this study, which is organized into five sections. Following this introductory section, which reviews the broad outlines of industrial policy developments during the import substitution industrialization period, section II examines current policy practices in the region and offers a typology of the strategies underlying them. Section III presents the main lines of action and policy instruments, while section IV analyses policy implementation and impact evaluation issues. Section V, lastly, presents some conclusions.

Policies to create new sectors were the centrepiece of industrial policy in the import substitution model;<sup>2</sup> they are generally defined now as policies that seek to alter the goods and services production vector (Chang, 1994; Melo, 2001), which necessarily entails the creation of new activities. The goal of these policies was to take advantage of growth in domestic demand, investment demand in particular, to complete the industrial fabric of the countries, considering that this growth would otherwise have translated into rising imports, with all the external constraints these imply. During the 1970s, there was a growing perception that the effects of investment fell into two parts: on the one hand, the installation of productive capacity, with positive effects on aggregate supply; on the other, the concomitant demand for capital goods which, for lack of the right kind of domestic supply, increased import demand and thereby negated the beneficial spillover effects for the rest of the productive structure. At that time, the concepts of industrial policy, policy for the manufacturing sector and incentive policies for capital goods production were closely linked.

The main instrument of industrial policy was a combination of trade protection, promotion of direct investment (often by the State or from abroad), and financing provided by national development banks. The leading examples in the 1970s, before the rupture produced by the external debt crisis, were the second

<sup>1</sup> This study was prepared as part of the "Fomento al desarrollo productivo" project, in the framework of the ECLAC/GTZ programme "Modernization of the State, productive development and sustainable use of natural resources", and was presented at the second meeting of the industrial policy task force (Rio de Janeiro, March 2005) of the Initiative for Policy Dialogue (IPD). The author is particularly grateful for the comments of Antonio Barros de Castro (the presentation commentator), Alice Amsden, Mario Cimoli, Giovanni Dosi, Bernardo Kosacoff, Yevgeny Kuznetsov, Richard Nelson, Gabriel Palma and Gabriel Porcile. Parts of this paper were published in ECLAC (2004a, chapter 8).

<sup>2</sup> In this document, the terms "industry" and "industrial" are used in a broad sense, i.e., they include not just manufacturing industry but also non-manufacturing sectors such as agriculture and mining.

Plano Nacional do Desenvolvimento (National Development Plan) in Brazil and the Programa Nacional de Fomento Industrial, 1979-1982 (National Programme for Industrial Development, 1979-1982) in Mexico, which was in operation during the boom that accompanied the growth of the country's oil export platform.

Industrial policies were used to organize domestic supply growth and provide a focus for planning or programming in relation to the productive structure. Three interrelated factors strengthened this organizing role: (i) public-sector support mechanisms were organized at the sectoral or even subsectoral level;<sup>3</sup> (ii) private-sector interests were also organized in sectoral chambers or associations, which were the main defenders of the trade protection system; and (iii) international trade negotiations (for example, within the framework of the Latin American Integration Association (LAIA), the Central American Common Market (CACM), the Caribbean Community (CARICOM) or the Andean Pact) yielded negative or positive lists of sectoral preferences. Industrial policies concentrated on the agricultural and manufacturing sectors, although the preponderance of the latter was such that, as mentioned earlier, the concepts of sectoral policy and policy for the manufacturing sector tended to be conflated.

After playing this central role, industrial policies gradually lost legitimacy over the course of the 1980s, to the extent that they were virtually absent from the new economic model ushered in by structural reforms, at least in its strictest version. Policies of this kind lost credibility for a number of reasons. The main ones were: the privatization or closure of public-sector enterprises that invested directly in new sectors, since the new vision for the State gave it only a subsidiary role in the economic dynamic; the need to balance the public finances by doing away with subsidies, particularly those of a fiscal nature and the subsidy components of lending operations; and the perception, sometimes a questionable one, that many investments had involved poor planning, faulty project management and corruption, and indeed that some projects were no more than pointless "white elephants". This loss of legitimacy did not occur everywhere in the world. Thus, for

<sup>3</sup> For example, ministries of industry, agriculture, mining and others and, within these, departments for food, metallurgy, chemicals, capital goods, etc.

example, in a number of East and South-East Asian countries, active policies targeted on individual sectors or even companies remained in force until well into the 1990s, when they became less common as, albeit at different paces, these countries gradually entered the free market mainstream and the new international trading regime.<sup>4</sup>

Whatever the merits of the economic arguments against industrial policy, opposition to the new economic model among the political supporters of this policy served to consolidate the "developmentalists versus neoliberals" stereotype. Supporters of structural reform combated those who opposed it by stressing the argument that sectoral industrial policies were to blame for distorting the allocation of resources and creating the fiscal imbalances that underlay inflation. A growing number of governments in the region also took a critical stance towards industrial policy.<sup>5</sup> This extreme position was not always matched by the reality, however; even some governments that were strong reformers, such as those of Menem in Argentina, Collor de Melo in Brazil and Salinas de Gortari in Mexico, kept some sectoral policies, particularly for the automotive industry.

<sup>4</sup> The debate about the effect of industrial policies in Asia is wide-ranging and still inconclusive, although the 1997 crisis meant that attention shifted from industrial policies to other issues where that region was concerned. For positions favourable to these policies, see Amsden (1989), Rodrik (1995) and Wade (1990), and for critical positions see World Bank (1993), Krugman (1994) and, more recently, Noland and Pack (2002). Again, the agricultural policies of the industrialized countries show that sectoral policies are far from being just a quirk of a few underdeveloped countries in the past.

<sup>5</sup> In the early 1990s, it was common to hear from top macroeconomic policy officials the dictum that "the best industrial policy is no industrial policy". Simple as it was, this maxim summed up their attitude quite well.

## II

### Industrial policy practice and strategy

#### 1. The experience of the region

Much of what the region is currently doing in industrial policy is covered by the phrase “competitiveness policies” (Peres, 1997).<sup>6</sup> The policies now followed in the region can be divided into four main groups:

(i) Policies that are a continuation of those developed during the import substitution industrialization period and that aim to expand and deepen a particular sector by creating new segments within it and applying some combination of trade protection and fiscal and financial incentives. Prominent examples of these policies are the automotive industry regimes created in Mercosur to organize and expand investment by producers of cars and car parts (ECLAC, 2004b, boxes III.3 and III.4). In many of the region’s countries, there have been sporadic measures to support sensitive (and uncompetitive) sectors such as textiles, wearing apparel, footwear, electronic products and toys, and a whole range of agricultural products and mining activities, with details varying by country; this support has been much more stable than incentives for manufacturing. Even in sectors with revealed comparative advantages, like some important segments of the agricultural sector, it has often been necessary to introduce schemes to help them cope with short-term crises<sup>7</sup> or longer-term challenges resulting from a relative loss of competitiveness.<sup>8</sup>

<sup>6</sup> The impact of economic reforms and macroeconomic policy on the industrial dynamic is beyond the scope of this study. It should be noted, however, that reforms such as trade liberalization and privatization, and monetary and exchange-rate policies too, have often had a strong influence on this dynamic, leading to their being considered veritable “implicit industrial policies”. Such implicit policies have often been decided on without adequate knowledge of the region’s microeconomy, i.e., of the specific dynamics of its businesses and markets (see Stallings and Peres, 2000).

<sup>7</sup> For example, the tax exemptions for meat producers during the foot-and-mouth crises in Uruguay, discussed by Scarone (2003). Again, 2003 data for Brazil show significant support for a number of sectors, including electricity (US\$ 1 billion in credit lines from the Banco Nacional de Desenvolvimento Econômico y Social, BNDES, to capitalize 24 distribution companies), information technology (US\$ 500 million worth of reductions in the industrialized products tax, or IPI), automobiles (US\$ 120 million worth of IPI reductions for small and medium-sized vehicles) and household electrical appliances (US\$ 70 million in credit lines). See Balbi (2003).

In the agriculture sector, a number of countries (including those of Central America, Brazil, Colombia and the Dominican Republic) have continued to intervene directly in markets for staple grains (wheat, maize, rice). Increasingly, however, direct market intervention (by means of guarantee prices, for example) and subsidized credit are being replaced by programmes aimed at small producers, who are the most affected by trade liberalization, and by horizontal instruments including, among others, spending on animal and plant health programmes, irrigation and land title schemes (FAO, 2001 and ECLAC, 2003). Growing importance is also being given to territorial or local programmes, such as fiscal incentives in poor regions or integrated rural development schemes, so called because they combine infrastructure investment with training and technical assistance in relatively disadvantaged rural areas.

(ii) Policies targeted on sectors, which have now evolved into economy-wide policies. This is the case with policies for the electronics and information technology industry, which began as hardware import substitution policies and were then used to support software development, and which have now been integrated into strategies to develop information and communication technologies (ICTs) and even create “information societies” in Latin America and the Caribbean.<sup>9</sup> Because there is widespread potential for scope and network economies and for complementarity between different activities, these policies need to be transversal, transcending sectoral or institutional boundaries that are in any case tending to blur.

(iii) Policies centred on highly concentrated sectors and based on scale and network economies (electricity, telecommunications, oil and natural gas). The aim of policies in these sectors, almost all of which have been

<sup>8</sup> As has happened with “sun and sand” tourism in much of the English-speaking Caribbean (Hendrickson, 2003), or in Mexico with agricultural conversion programmes to introduce crops with greater potential, value-added and market opportunities, as an objective of the Alianza para el Campo (Rural Alliance) (Villagómez, 2003).

<sup>9</sup> See ECLAC (2005) for a general approach to the subject; for national analyses, see Bonelli and Motta Veiga (2003) on Brazil, Scarone (2003) on Uruguay, and Henry (2003) on the Caribbean.

settled upon since privatization, has been to develop efficient frameworks of regulation, and this has meant creating and building up regulatory agencies, adapting the legal framework and striving to harness the growth of investment in these sectors to the supply capacity of domestic suppliers, a linkage that varies in strength from one country to another.<sup>10</sup> Brazil has gone so far as to set up “technology funds” to support scientific and technological development programmes in each of the sectors concerned, funded from the royalties paid by companies.

(iv) Policies to support clusters, particularly those composed of small and medium-sized enterprises, or of a large number of such enterprises under the leadership of big firms. This approach has found increasing acceptance in the Andean and Central American countries and, like other industrial policies, its purpose has been more to increase the competitiveness of existing sectors than to create new activities. In countries such as Mexico and Brazil, vigorous measures have been taken to encourage these clusters at the subnational level. This is illustrated in the case of Mexico by the support given to the footwear sector in Guanajuato and the electronics sector in Jalisco (Unger, 2003; Dussel Peters, 1999), and in the case of Brazil by the actions of the Brazilian Micro and Small Business Support Service (SEBRAE) throughout the country as part of the project to develop “local production arrangements”.<sup>11</sup> This type of policy enjoys great legitimacy, even among international financial organizations, and this has made it more acceptable to governments and even led to some measures being described as “support for clusters” when the activities they assist do not qualify, strictly speaking, either as a production chain or as a geographical cluster.<sup>12</sup>

<sup>10</sup> See Sergeant, Racha and James (2003) on Trinidad and Tobago.

<sup>11</sup> In Portuguese, *arranjos produtivos locais* (APL). The characteristic of these arrangements is that they cover a significant number of businesses whose operations centre on a production activity that is dominant in a particular territory and which share forms of cooperation and governance mechanisms. APL support measures are local, which is consistent with the Brazilian experience of state policies with a strong sectoral component. Examples of these policies are support programmes for the automotive industry (through subsidies and even capital investments by some state governments), the electrical, electronics and information technology industry, textiles, wearing apparel and footwear. See Bonelli and Motta Veiga (2003).

<sup>12</sup> See Velasco (2003) regarding sectoral agreements in Colombia.

## 2. A typology of national strategies

Following a resurgence of interest in active microeconomic and sectoral policies in the mid-1990s, three approaches to competitiveness policy were shaped. Some countries, chiefly Brazil, Mexico and those of the English-speaking Caribbean, produced policy documents specifically oriented towards the industrial sector and its linkages with technological development and international trade.<sup>13</sup> These documents were not so much industrial plans or programmes, strictly speaking, as shared working agendas for government and the private sector, and this led their critics to accuse them of being “programmes without goals” and even “without resources”.

In the Andean and Central American countries, the main thrust of policy was to raise the competitiveness of the economy as a whole without giving any particular priority to the industrial sector. National competitiveness strategies were based on the cluster analysis methodology, and clusters were referred to under a variety of names, such as “*aglomeraciones industriales*”, “*arreglos productivos*” and “*conglomerados productivos*”.<sup>14</sup> In practice, these approaches led to the negotiation and implementation of sectoral agreements, generally spanning value chains, between private-sector actors and government, with the latter acting as a catalyst or facilitator.

Argentina, Chile and Uruguay, lastly, did not work on the basis of industrial policies or national competitiveness strategies. Preference was given instead to what are known as horizontal policies,<sup>15</sup> which were

<sup>13</sup> Pérez Caltendey (2003) highlights the importance of sectoral incentives in Caribbean economies, particularly among the member countries of the Organization of Eastern Caribbean States, Barbados and, most particularly, Guyana, which has the widest range of incentives in the region. These incentives are basically designed for the manufacturing and service sectors, particularly hotels and tourism (Hendrickson, 2003).

<sup>14</sup> This approach was based on Porter (1990) and given effect in the work done by the Monitor Company in the Andean countries in the early 1990s and in the project “Central America in the 21st century: an agenda for competitiveness and sustainable development”, coordinated by INCAE/Latin American Centre for Competitiveness and Sustainable Development (CLADS) in the mid-1990s.

<sup>15</sup> The expression “neutral or horizontal policies”, in widespread use across the region, conceals the fact that any policy will ultimately favour certain sectors over others. This happens because these policies seek to raise the efficiency of production factor markets, which are used in different proportions by the different sectors or products. In some cases, policies that are presented as neutral to give them greater legitimacy are oriented from the outset towards specific sectors. This is usually the case with technological development policies.

supposed to be non-discriminating between sectors and to be implemented by means of incentives to company demand, by contrast with the supply subsidies that characterized the earlier model. When problems with a clear sectoral dimension arose, horizontal policies instruments would be brought to bear on solving these, without these policies being thereby deemed to have lost their essentially neutral character. It was in Chile that this type of intervention was conceptualized and implemented most forcefully, although the country long continued to provide direct subsidies to the forestry and mining sectors and to export activities (Moguillansky, 2000).

In the early 2000s, by contrast with what has been happening in other development policy areas, there has been no convergence in the positions of the Latin American and Caribbean countries where sectoral policies are concerned. While in some the official stance is strongly against these policies (although sectoral support is provided ad hoc), in others they are recognized as a valid way of raising the competitiveness of activities that have the potential to penetrate external markets or that face strong competition from exports. There are some double standards with these policies: countries that deny their utility, particularly when it comes to support for manufacturing, use them openly and without any attempt at justification in numerous areas of agriculture and services (tourism, for example).

Taking the historical analysis of policymaking that has been presented here as a basis, the region's countries can be classified or ordered by three variables: the purpose of the intervention, its frequency or intensity, and the level of coordination between the policy implementation measures taken as part of a broader strategy.

Going by the purpose of intervention, three types of countries can be distinguished, as noted above: (i) those that have maintained or even revived sectoral policies, (ii) those where sectoral policies essentially concern clusters, and (iii) those that have not taken either of these two approaches and only accept the use of policies considered to be horizontal, although these will sometimes be concentrated on a specific sector.

Horizontal policies are widely accepted in all three types of countries. What distinguishes the first two types are the policies they apply in addition to horizontal ones. Table 1 highlights the use of development bank lending and fiscal incentives oriented towards specific sectors.<sup>16</sup>

<sup>16</sup> The amount of implicit subsidy in lending operations and fiscal incentives cannot be determined from the information available.

In seven of the region's countries (Argentina, Brazil, Colombia, Costa Rica, El Salvador, Honduras and Mexico), public-sector development banks carry out sector-oriented lending, while in 18 countries fiscal incentives have been established for the benefit of specific sectors. Only in Colombia, Guatemala, Haiti, Honduras, Paraguay and Suriname do no such incentives exist. An even commoner type of incentive is the existence of special rules that favour the creation of free-trade export zones or *maquila* industries.

Taken together, this information immediately reveals one difference from the practices associated with the earlier model. Whereas preference was given then to manufacturing, this is now one of the sectors with the least weight. The activities most favoured have been tourism, commodity sectors such as oil, mining and forestry, and miscellaneous services (ranging from infrastructure to film-making). The importance of agriculture-oriented policies varies appreciably among the region's countries if it is measured by the public funds spent on implementing them (including productive development programmes, rural infrastructure investments and social spending in rural areas).<sup>17</sup> Public-sector development banks, meanwhile, make an important contribution to the financing of this sector in countries such as Argentina, Brazil, Costa Rica, the Dominican Republic and Mexico (Acevedo, 2002). Generally speaking, lending is carried out on near-market terms and interest rate subsidies are retained in programmes to support small-scale farming.

The above description needs to be modified somewhat in the light of the lending portfolios of the six development banks in five of the region's countries. Industry still receives about half of all loans from the Banco Nacional de Desenvolvimento Econômico e Social (BNDES) in Brazil, the Banco Nacional de Comercio Exterior (BANCOMEXT) in Mexico and the Banco de Comercio Exterior de Colombia (BANCOLDEX), while it accounts for about 25% of the total portfolio of the Corporación Financiera de Desarrollo (COFIDE) in Peru and less than 15% of the portfolios of the Banco Nacional de Costa Rica (BNCR) and Mexico's Nacional Financiera (NAFIN). Given that BANCOLDEX and BANCOMEXT lending is for foreign trade financing, of the six institutions only BNDES seems to

<sup>17</sup> In Chile and Mexico, annual expenditure per producer totalled US\$ 900 in 2000, whereas in Bolivia it was less than US\$ 50. That same year, agricultural spending as a proportion of the sector's GDP was 35% in Mexico, 21% in Chile and just over 5% in Bolivia (Kerrigan, 2001).

TABLE 1

**Latin America and the Caribbean: Sector-specific financial and fiscal incentives**

Country	Lending to specific sectors, except agriculture	Fiscal incentives for specific sectors
Argentina	Capital goods	Mining, forestry
Bahamas		Hotels, financial services, beer and alcoholic beverages
Barbados		Financial services, insurance, information technologies, tourism
Belize		Mining
Bolivia		Mining
Brazil	Oil, natural gas, textiles, wearing apparel, footwear, shipping industry, electricity, telecommunications, software, film-making	Automotive industry, electronics
Chile		Forestry, oil, nuclear materials
Colombia	Film-making	
Costa Rica	Various sectors	Forestry, tourism
Ecuador		Mining, tourism
El Salvador	Mining, services (tourism, transport, software and others)	
Guatemala		
Guyana		Agroindustry, forestry, mining, tourism, fishing, construction, information and communication technologies (ICTS)
Haiti		
Honduras	Transport, shrimp	
Jamaica		Film-making, tourism, bauxite, aluminium, factory construction
Mexico	Film-making	Forestry, film-making, air and sea transport, printing and publishing
Nicaragua		Tourism
Panama		Tourism, forestry
Paraguay		
Peru		Tourism, mining, oil
Dominican Republic		Tourism, agroindustry
Suriname		
Trinidad and Tobago		Hydrocarbons, tourism, construction
Uruguay		Mutton, vineyards and wine, hydrocarbons, printing, forestry, military-industrial, airlines, newspapers, radio stations, theatres, film-making
Venezuela (Bolivarian Republic of)		Hydrocarbons and purchases of capital goods and services for investments in primary sectors (oil, mining, agriculture and fishing).

Source: Prepared by the author on the basis of Melo (2001, table 3).

play an important role in the financing of domestic market-oriented production activity in the industrial sector; in 2002, its operations exceeded US\$ 5.8 billion (ECLAC, 2004a, table 8.2).<sup>18</sup>

<sup>18</sup> The "Others" category of the NAFIN portfolio, accounting for 97% of the total, probably includes operations oriented towards the domestic production sector.

The second variable allows the countries of the region to be differentiated by the frequency or intensity with which they conduct sectoral policies: (i) countries that implement a wide range of sectoral policies (such as Brazil, Colombia, Guyana, Mexico, Uruguay, the Bolivarian Republic of Venezuela); (ii) countries that implement them for only a small number of activities (Bolivia, Chile, the Dominican Republic, Peru, among

others); and (iii) countries where these policies are almost non-existent (such as Haiti, Paraguay and Suriname). Besides the information provided by table 1, the intensity with which sectoral policies are implemented can also be gauged from measures that do not involve fiscal and financial subsidies, as in the case of Colombia, where there is a very active policy of sectoral agreements that do not include incentives of this type, or El Salvador, a country that has an active policy of supporting clusters (Alonso, 2003).

In Mexico, since the *Política Económica para la Competitividad* (Economic Policy for Competitiveness) was inaugurated in 2002, 12 priority production branches have been chosen to benefit from sectoral programmes: four of these are in operation (for the fibre, textiles and wearing apparel chain; for leather and footwear; for the electronics and high technology industry; and for software) and there has been progress with some programmes for the automotive industry, export *maquila* and chemicals.<sup>19</sup> In November 2003, meanwhile, the Government of Brazil published its industrial, technological and external trade policy guidelines, setting out its strategic sectoral options in four knowledge-intensive production activities (semiconductors, software, pharmaceuticals and medicines, and capital goods), and created a special body to coordinate implementation of this policy, the *Agência Brasileira de Desenvolvimento Industrial* (Brazilian Industrial Development Agency).<sup>20</sup>

In some countries (Costa Rica, Peru and Uruguay, among others), promotional measures have been targeted even more closely, to the extent that support has been given to the individual projects of particular companies. Some examples are the incentives for investment in megaprojects in the Peruvian mining sector,<sup>21</sup> the measures taken by the government of Costa Rica so that INTEL would establish an operation

in the country,<sup>22</sup> and tax exemptions to support projects declared to be of national interest in Uruguay.<sup>23</sup>

The third variable, the level of coordination between the measures applied, requires consideration of a further dimension that concerns the logic of the policies on which they are based: the question of whether or not they are integrated into a broader national strategy. Three types of countries need to be distinguished, then: those that take frequent measures as part of explicit public intervention strategies, usually expressed in official plans or programmes (Brazil, Colombia, El Salvador and Mexico, for example); countries that intervene frequently, but without an explicit strategy (Costa Rica, Uruguay) and countries that intervene sporadically (the great majority).

The three variables considered have remained very stable in each of the countries over time, which is indicative of competence and experience in policy formulation and application. Changes of government, even when they have meant a sharp break with a country's political past, as in Mexico in 2000 or Uruguay in 2005, have not led to great alterations in policy stances. Two examples, albeit tending in opposite directions, are the relative unimportance of sectoral policies that is still a feature of Chile, and the continuity of efforts to formulate and maintain sectoral agreements (export competitiveness pacts) in Colombia over the administrations of presidents Samper, Pastrana and Uribe, involving as they do 41 production chains and sectors responsible for 86% of non-traditional exports.<sup>24</sup>

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framework law guaranteeing free enterprise and private investments; tax, currency and administrative stability; modernization of the mining concession process; fiscal benefits (reinvested profits are free of income tax); fiscal incentives for investment in megaprojects (income tax exemptions and accelerated recovery of the general sales tax). See Fairlie (2003).

<sup>22</sup> See Alonso (2003).

<sup>23</sup> The 1998 investments law promotes specific investments, the requirement being a declaration by the executive that a particular project is of national interest. Benefits may be general or favour only the project concerned (e.g., exemption from the asset tax on movable goods). General benefits may be automatic (e.g., exemption from the asset tax on movable goods for use in the production cycle) or discretionary (the regulations for this had yet to be issued as of mid-2003). See Scarone (2003).

<sup>24</sup> Of these chains and sectors, 31 are national and 10 regional; 29 produce goods and 12 services. Strictly speaking, not all the programmes concern production chains, since the sectors covered include potatoes, farmed shrimp, tuna, wild shrimp, flowers, coffee and bananas. The production chain concept was not rigorously applied because these agreements were signed for "practical reasons" in an effort to bring businesses on board (Velasco, 2003).

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<sup>19</sup> The other five branches of industry are aerospace, agriculture, tourism, commerce and construction (Secretaría de Economía, 2003).

<sup>20</sup> The document states that these sectors were chosen because (i) they display increasing and sustained dynamism; (ii) they account for large shares of international research and development investment; (iii) they open up new business opportunities; (iv) they are directly linked to innovation in processes, products and forms of use; (v) they increase the density of the industrial fabric; and (vi) they are important for the future of the country and have potential for the development of dynamic comparative advantages (Ministério do Desenvolvimento, Indústria e Comércio Exterior, 2003, p. 16).

<sup>21</sup> The main support policies for the Peruvian mining sector in the 1990s were: promotion of and guarantees for foreign direct investment; privatization of State enterprises; approval of a

Positive though these examples of institutional maturity are, their implications should not be overstated, because the experience of the region also abounds in examples of programmes established to palliate efficiency problems that have led to crises.<sup>25</sup> Even the

policy for the Brazilian automotive industry has features suggestive of a rescue for a struggling sector that cannot withstand external competition or, to use the term current in the 1980s, of an industrial restructuring exercise (Bonelli and Motta Veiga, 2003).

### III

## Lines of action and instruments

As the specialized literature has often pointed out,<sup>26</sup> competitiveness policies in the region, even those that are fundamentally sectoral in scope, have concerned themselves far more with increasing the efficiency of existing sectors than with creating new ones, something that is consistent with a quest for greater international market share relying chiefly on static comparative advantages (unskilled labour and natural resources). This has happened both in countries with a diversified production structure (Brazil and Mexico, among others) and in countries with more specialized structures. Of the former it might be said that only a very few sectors are wholly absent from their economies and that sectoral policies should be detected at the individual product level. While this is true, the evidence suggests that, particularly in Brazil and to a lesser extent in Mexico,<sup>27</sup> sectoral type measures have focused on strengthening and expanding established sectors, the most noteworthy example being the automotive industry, as indicated earlier.

The creation of new activities comes up sporadically as a policy objective, and two main lines of action have been followed to this end: international trade negotiations to secure market access, chiefly through bilateral or multilateral free trade agreements, and efforts to attract foreign direct investment (FDI) to develop export platforms, including free trade zone and *maquila* activities.

Attracting FDI has been the main mechanism used to create new sectors in most of the region's countries. Measures of this kind include the deepening of the Mexican export platform within the framework of the North American Free Trade Agreement (cars and car parts,

electronics and clothing), more elementary first-generation *maquila* activities in some Central American and Caribbean countries (wearing apparel) and investments in privatized service and commodity sectors in South American countries (Mortimore, 2000; Peres and Reinhardt, 2000). The activities leading to the diversification of production structures have largely been determined by the different combinations of strategies followed by investing multinationals, on the one hand, and government sectoral policies, on the other, albeit with the limitations deriving from low value-added (owing to the preponderance of assembly activities) and a lack of linkages with the rest of the national economy concerned.

The instruments that have been used to attract foreign investment can be classified into three major groups (Mortimore and Peres, 1998): (i) incentives, chiefly in the form of free trade zones and fiscal benefits, (ii) the use of standards to create an efficient business environment (rule of law, transparency, assured access to international markets, good infrastructure, etc.) and (iii) the creation of specialized factors of production, particularly skilled labour. The countries of the region have applied these three types of instruments to differing degrees; with few exceptions, however, it is the first two that predominate.

Besides specific instruments to attract foreign investment, countries have used two others that apply to any kind of investment (domestic or foreign). These are the financial and fiscal incentives shown in table 1 and a large group of measures used by governments to create competitive environments for companies to work in (pro-competition measures and the regulation of monopoly sectors), lower transaction costs (by reducing administrative controls, among other things) or enable companies to act collectively to take advantage of economies of scale (sectoral agreements spanning production chains, support for partnerships between companies, etc.).

<sup>25</sup> See Scarone (2003) concerning a large portion of the policies applied in Uruguay and Villagómez (2003) concerning the 2002-2010 programme for the electronics industry in Mexico.

<sup>26</sup> See IDB (2001), Melo (2001) and Peres (1997).

<sup>27</sup> See Bonelli and Motta Veiga (2003) on Brazil, and Unger (2003) and Villagómez (2003) on Mexico.

The policies formulated in the region can be grouped as follows, in accordance with the degree of acceptance they have attained: winning policies, losing policies and emerging policies (Peres, 1997). Winning policies are those that have been generally accepted by governments, i.e., that have strong legitimacy. In addition to the export promotion and inward FDI policies already mentioned, this group includes policies to promote technological development, human resources development, small businesses and microenterprises (usually in the form of support for the creation or strengthening of business networks or clusters) and productive development at the local or subnational level, these two last being very closely intertwined. These policies have proved so acceptable because of their perceived neutrality, since they operate on markets for production factors (technology and training), or because of their perceived positive impact on job creation, especially at the subnational or local level.

Losing policies, meanwhile, are those that are more clearly inconsistent with the current development model, particularly trade liberalization and public-sector deficit reduction. They include direct fiscal subsidies, directed lending and the use of subsidized interest rates, tariffs on foreign trade and the use of the State's purchasing power. Concerning this last, the situation varies from one country to another. While some use this instrument at the national or subnational level, as in the support programme for software production in Mexico already

referred to, others regard it as being outside the range of applicable policies because it would go against objectives of spending efficiency and transparency.

Emerging policies, lastly, such as pro-competition measures, improvements to corporate governance regimes, regulation of infrastructure sectors whose markets do not operate efficiently, and corporate social responsibility, are acquiring growing legitimacy, but are still maturing and are at very different stages of development in the region's countries. Some have modern legislation and fairly solid institutions with which to implement these policies, while in others they are still at the stage of debate and decision-making, or are not a major item on the agenda.

National differences notwithstanding, the region has displayed a high degree of convergence in the content of policy documents over the last decade. There are four basic elements around which this convergence has taken place: (i) an emphasis on raising international competitiveness, (ii) horizontal or neutral instruments, whose legitimacy has become firmly established even though, as noted earlier, their effects in practice are far from neutral, (iii) support for small businesses and microenterprises, basically because of their capacity to generate jobs, and (iv) the targeting of subnational or local economic areas. Programmes to support clusters are the leading manifestation of at least three of these elements, the Brazilian programme of support for local production arrangements (APL) being perhaps the most important example in Latin America and the Caribbean.

## IV

### Evaluating industrial policy implementation and impact

Efforts to evaluate the implementation and effects of industrial policies are constrained not only by the information available, but also by the fact that, until very recently, these policies rarely specified which criteria and mechanisms should be used for evaluating them. The problem is compounded by the technical complexities involved in evaluating policies that have multiple objectives and lines of action.

#### 1. Evaluating policy implementation

While there are data on the funding allocated to certain policies (actually programmes or projects),<sup>28</sup> the

information is insufficient to evaluate implementation overall. Despite this, it has been shown that, with some exceptions, the degree of policy implementation in Latin America and the Caribbean is still low, as indicated in

<sup>28</sup> The best-documented cases concern the amounts allocated to agricultural policies, in particular those forming part of large programmes such as PROCAMPO, the Alianza para el Campo (Rural Alliance) and the Programa de Apoyo a la Comercialización (Marketing Support Programme) in Mexico. See Kjölleström (2004), Villagómez (2003) on Mexico and Scarone (2003) on Uruguay.

Peres (1997); particularly clear analyses are provided by Alonso (2003) concerning the situation of the five Central American countries and Fairbanks and Lindsay (1997) concerning the Andean countries that designed competitiveness strategies around the concept of clusters.

According to these studies, the causes behind widespread policy implementation failures (i.e., “government failures”), and the resultant gap between what is decided and what is actually done, fall into a number of categories, as shown below.

a) *Non-operational or unattainable objectives*

The inclusion of non-operational or unattainable objectives in policy formulation transfers real implementation decisions to the budgetary allocation stage. The problem in these cases is that because of shortcomings in their formulation, policies tend to be more akin to declarations of intent than to resource allocation instruments. Evaluation of the 41 sectoral agreements in Colombia to determine the factors conducive to success shows that: (i) agreements containing well-structured, quantifiable and time-limited commitments are easier to follow and implement; (ii) agreements comprising just a few simple commitments achieve greater results; (iii) the leadership and decision-making capabilities of the people behind the agreements are fundamental; and (iv) production chains that had been supported since before the agreements achieved better results.<sup>29</sup> The practice followed in the region does not usually take these success factors into account. Thus, policy documents tend to end up as veritable “shopping lists” of needs and objectives. While the multiplicity of objectives may be due to the action of numerous agents in complex societies, it also reflects a certain inability to set priorities and build consensus around a few that can realistically be achieved.

b) *Shortages of human and financial resources*

Shortages of the human and financial resources needed for policy implementation, especially serious in smaller and poorer countries, often mean reliance on external resources (lending or aid) to make policy and, especially, to enforce it. When policies are rolled out, furthermore, their cost and the consequent financing needs are not usually considered, the approach being once again “decide first and then see what can be done and how it can be afforded”.

<sup>29</sup> See Velasco (2003).

c) *Lack of institutional capabilities*

Almost all the countries in the region are deficient in the institutional capabilities needed to implement policies, even some quite straightforward ones. The difficulties increase when countries try to introduce policies that are more a reflection of “international best practice” than of their own actual needs. This results in policy formulations that are detached from reality and, worse still, are often sponsored by State agencies with little weight in the government power structure or by business associations that are unrepresentative and have little economic or political influence. The problem is compounded by the fact that policymaking and implementation authorities are usually separated in the region. Although countries can increase their institutional capacity over time, and some in the region have done so, institutional creativity and innovation require stability of objectives over longer periods than the four- to six-year terms that are the norm for governments in Latin America and the Caribbean, together with financial resources to make action possible. The great disparity in tax burdens between the different countries of the region, ranging from under 10% to over 30% of GDP, means there are structural differences in the potential for progress in this area.

d) *The unreliability of public-private agreements*

Policy implementation agreements between government and the private sector are unreliable, as transpires when the time comes for the public sector to release funds or for the private sector to make matching investment and spending commitments. Furthermore, there is a proliferation of plans and programmes that are only produced in reaction to political pressure from economic actors, or as a means of soliciting international financing, or to comply with legal or constitutional provisions. Businesses, which vigorously defended protection policies until the late 1970s, are not showing the same robust commitment to policies for diversifying and improving productive specialization in the region’s countries.<sup>30</sup>

e) *The weakness of economic signals*

Implementation problems are compounded, in the case of industrial policies, by the weakness of the economic signals sent out by programmes to expand

<sup>30</sup> Again, while disagreements between governments and the private sector have diminished, they have by no means disappeared, as Alonso (2003) points out in relation to Guatemala and Scarone (2003) in relation to Uruguay.

activities or create new ones. By contrast with the vigour and clarity of the signal associated with the trade protection typical of the import substitution industrialization model, which made it possible to set domestic prices and maximize profitability, what businesses are now offered, at best, is a set of signals which are difficult to interpret and translate into concrete measures, and whose implications for profitability are uncertain. It should not be surprising, then, if the perception that “policies don’t work” is widespread.

Implementation failures and the perception that “policies don’t work” affect the legitimacy of industrial policies and the interest they may arouse among businesses, their main beneficiaries. This leads to a paradoxical situation: businesses consider that the resources available for policy implementation are inadequate, and yet they do not make full use of them. Finding out how to overcome implementation failures and make policies work is one of the main challenges for development strategies.

Despite the implementation failures referred to, there has been progress with the relationship between the public authorities and business associations (or chambers) at the policymaking stage and, in a few cases, at the implementation stage. Public-private dialogue has been strengthening since the early 1990s, although there are still conflicts, and has progressed to the point where business organizations often take the lead in proposing policy initiatives. This has happened with the Asociación Nacional de Industriales (ANDI) in Colombia, the Cámara Nacional de la Industria de Transformación (CANACINTRA) in Mexico, the Asociación de Industriales de República Dominicana (AIRD) in the Dominican Republic, the Cámara de Industrias de Costa Rica (CICR) in Costa Rica and the Federación de Cámaras Industriales de Centroamérica (FECAICA), a body which promoted an industrial modernization agenda in Central America in the 1990s. In these and other countries, then, it is possible to speak of shared public-private responsibility in policymaking, rather than just discussion and consensus-seeking (Peres, 1997).

Business associations have also participated to varying degrees in forums to negotiate competitiveness-boosting measures, such as the Consejo Nacional de Competitividad in Colombia, the Foro de Desarrollo Productivo in Chile and the “sectoral chambers” in Brazil.<sup>31</sup> In some cases, they have gone so far as to

make long-term proposals to endow policies with stability beyond the individual terms of governments; this happened, for instance, with *Visión 2020*, an initiative of the Confederación de Cámaras Industriales de los Estados Unidos Mexicanos (CONCAMIN).

The policymaking role of other civil society organizations has been much weaker. Although labour unions have been represented in policy consensus forums, they have not had a decisive influence on their dynamic, with few exceptions; one such was the role played by the union organization in the “sectoral chamber” of the Brazilian automotive industry. Other bodies have played even less of a role, an exception being the participation of academics in the Consejo Nacional de Competitividad (National Council for Competitiveness) in Colombia.

## 2. Evaluating policy impact

The steps taken to evaluate the effects of industrial policies have been as limited and unsatisfactory as the efforts to evaluate their implementation, if not more so. There have been evaluations of some specific programmes, such as small business support programmes in Chile,<sup>32</sup> plus general evaluations of what has happened *after* policies have been applied, but without any effort being made to show that the policies have been the *cause* of the developments described. Some evaluations of this type have dealt with the increase in non-traditional exports from production chains with sectoral agreements in Colombia (Velasco, 2003), the increase in mining exports from Peru (Fairlie, 2003), improvements in the incomes of rural producers and indeed in the productivity of their farms following the large agricultural programmes in Mexico (Villagómez, 2003), and the discussion as to whether or not producers supported by the National Institute for Agricultural Development (INDAP) in Chile have increased their autonomous incomes (Kjöllerström, 2004).

What can be done to close the gap between what is decided and announced, and what is actually done and evaluated? Three lines of action, which are not mutually exclusive, look promising and should be followed up.

First, policymaking should be accompanied, not followed, by explicit considerations as to which institutions are responsible for implementation. This

<sup>31</sup> In Brazil, the expression “sectoral chamber” does not indicate an employers’ association but a tripartite negotiating forum (State, businesses and workers).

<sup>32</sup> See Silva and Sandoval (2003) for evaluations of support programmes in Chile.

means that those involved with industrial policy will have to venture into matters of State reform. The State is still structured around the organization of production sectors and subsectors, whereas the aim now is to apply system-wide or transversal policies which, by definition, will cover more than one sector or more than one implementing agency. This is particularly important in the case of policies that were strictly sectoral to begin with but have since become general, such as strategies to support the spread and use of information and communication technologies, whose transversal character has already been noted. Reform of the State and the institutional development that this entails are not subjects familiar to industrial organization specialists, but they need to be addressed if implementation failures are to be reduced.

Given the shortage of qualified human resources in those areas of the State that are involved in policy implementation, a second line of action would be to transfer to these areas highly qualified staff who are currently engaged in policymaking. This would not undermine capacity-building efforts, since these efforts are necessarily long-term while the reallocation of human resources can be short-term. Reallocation of this kind is bound to be costly, of course, in terms of both efficiency and individual careers, but it is an alternative that deserves consideration once it is accepted that there is a large discrepancy between stated aims and the actual measures taken.

A third line of action is to develop and strengthen policy operators, i.e., institutions and individuals who combine policymaking capabilities with a capacity for action. This can be done by reinforcing public

institutions, seeking out leaders in the private sector and bolstering intermediate agents such as business associations and non-governmental organizations.

Long-term institutional development within the State is something that is already under way in ministries responsible for macroeconomic policy and in central banks in Latin America and the Caribbean. In the agricultural and extractive sectors, too, many countries in the region have created and maintained vigorous institutions, examples being the Empresa Brasileira de Pesquisa Agropecuária (EMBRAPA), an agricultural research organization in Brazil, and the oil institutes of Mexico and the Bolivarian Republic of Venezuela. This experience can and must be emulated in areas linked to the development of other production sectors. Private-sector policy leadership has been efficient in some cases (the formation of certain clusters at the local level, for example), and needs to be employed whenever possible, but it has proved difficult to systematize in the region and its distribution has not matched implementation needs. Thus, economically weak sectors, which need major efforts from policy operators, tend to be weak in leadership as well. Strengthening intermediate-level implementation bodies has been a successful strategy in countries such as Chile, where it has been used for programmes to support productive linkages (PROFO), although the predictable problems of adverse selection and moral hazard have not gone away.

None of these measures is a panacea, nor will implementation be easy. They do open up new options, however, and deserve to be considered from perspectives that combine the economic, institutional and administrative dimensions.

## V

### Conclusion

This study has shown that the countries of Latin America and the Caribbean have policy options for improving their productive specialization, and that they have used them. Three types of policies have been shaped in the region in the light of the objectives, experience and economic and institutional capacity of the individual countries. More particularly, the measures designed range from industrial policies in the strict sense of the term to what are basically horizontal policies focused on particular sectors and support for clusters with a value chain approach (Porter, 1990).

Industrial policies are the core of specialization or diversification strategies. With strategies of this type, there are four major aspects to be considered: the criteria for deciding which sectors to support, the policy instruments available, the constraints imposed by the size of national markets and accumulated capabilities in the different countries of the region, and the political will to take measures of this type.

The choice of sectors must set out from the recognition that there are no universal criteria for deciding which activities ought to be promoted. There

is a large body of international experience, however, which shows that in practice countries have chosen and continue to choose sectors in accordance with a few more or less precise criteria. Chief among these criteria are the knowledge content of the activities concerned, dynamism in the international market because of a high level of elasticity in relation to world income and especially the income of developed countries, and potential for productivity growth. Another consideration is the strategic character of certain activities, essentially because they account for a large share of total output, exports or employment, usually at the national level but sometimes at the local or subnational level as well. The review of policies in the previous sections provides a good illustration of how these criteria are used, not always explicitly, in the countries of the region.

Since the 1980s, the technology dimension has been increasingly important for determining the scope of industrial policies. Although the term “sector” has traditionally been applied to groups of activities whose common feature is the production of goods or services with a high cross-elasticity of demand, it can also be used for activities that have a common technological development path (Robinson, 1953); thus, we speak of the aerospace sector, the biotechnology sector and the information and communication technology sector. When it comes to encouraging activities that share a particular technology, the focus has sometimes been on horizontal policies, while at other times intervention has been focused directly on particular companies, market segments or knowledge networks. Just as industrial policies designed to create linkages between production activities have tended to concentrate on supporting clusters, in the field of technology they are almost indistinguishable from technological development or innovation policies.

As policies become systemic in scope, special attention needs to be paid to their impact on the conditions for competitiveness in the economy as a whole. The extra costs associated with the early phases of learning curves must not be so great that they jeopardize the competitiveness of the businesses using the new goods or services, especially if these businesses are strongly oriented towards external trade. It is not easy to strike the right balance between supporting diversification of the nation’s productive apparatus and taking advantage of opportunities to import cheaper or technologically superior capital goods and inputs; this balance can only be sought through experimentation and trial and error, i.e., through policies of a pragmatic rather than doctrinaire cast. Since pragmatic policies

tend to be reactive, a major challenge for the region is to combine pragmatism with much more proactive policies.

The instruments available for implementing policies of this kind are well known and are utilized by policymakers in the Latin American and Caribbean countries. By contrast with the former situation in the region and elsewhere, however, economies are now open and it is not possible to use permanent, across-the-board trade protection instruments. This constraint weakens the economic signal (expected returns) sent out to potential investors in new activities and means that a significant part of the cost of promotional measures has to be met by the State. This creates problems both for the selection of budget priorities and for the stability of budgetary allocations at times of fiscal tightening. Sustaining development mechanisms over the long run so that they outlast individual terms of government is a challenge that the countries of the region have yet to address successfully. Another powerful instrument of sectoral policy, direct State investment, is off the agenda in many of the region’s countries; yet there is a great deal of room for manoeuvre in this area, as a number of cases show, particularly at the local or subnational level. The experience of the region suggests that while the cumulative effects of the policy combinations applied so far have yet to be evaluated, the inducements they create are weaker than those offered by protection in its day.

It has been argued that small countries with more limited institutional capacity should not and cannot introduce policies that are sectoral in scope. While it is certainly important that the domestic market could be used to achieve economies of scale and learning, it cannot be denied that this is less of an issue in open economies, as shown by the experience of numerous small countries that operate as highly competitive export platforms. That institutional capacity is a significant requirement is not in doubt, particularly in the short term, but the fact of its being limited does not mean that sector-wide activities need be ruled out, but rather that they should be focused on subsectors, segments or even products for which existing capabilities suffice. The alternative is to scale down the efforts made and not take “leaps in the dark”. The experience of the region with cluster policies reveals that even small countries have succeeded in creating policies to improve their pattern of specialization.

Despite these considerations, there is no consistent political will to implement sectoral initiatives in the

region. They have more legitimacy in some countries (although never as much as the earlier import substitution industrialization model) and much less, or none, in others. Even in countries that do not regard sectoral policies as legitimate, however, they are still practised, albeit in a much more ad hoc way, and specific support measures are often applied to crisis-hit sectors. Given that these policies are necessary for development in the region, the question is what has to be done to increase their legitimacy.

Two lines of action are paramount. First, there is a need to improve implementation capacity to narrow the gap between the policies formulated and the ability of institutions to put them into effect; the persistence of this gap damages the credibility of policymakers, and thence of the policies themselves. Second, considerable progress is needed in the task of evaluating the impact of policies in relation to their ultimate objectives: economic growth, technological progress, higher productivity. Given the scarcity of public resources, only robust evaluations can create the scope for reallocating resources from other policy areas to these.

These observations are not new, but they are crucial.<sup>33</sup> There have been advances, as is illustrated by the Programa de Desarrollo Empresarial de México 2001-2006, a Mexican business development programme which makes explicit reference to quantitative targets,<sup>34</sup> thus showing a clear improvement over earlier programmes. Progress in the region as a whole has certainly been inadequate, however. This is seriously affecting policies which have to compete for fiscal resources with others that enjoy

great legitimacy, such as basic education, public health and civic security, and which have to justify their very existence. Given that they are essential for diversifying the production apparatus and laying the groundwork for faster productivity growth, industrial policies need to regain legitimacy, and to do this they have to show that they work.

From a broader perspective, a crucial question remains open. Even if policies for diversifying the production structure could demonstrate their technical ability to generate positive impacts, it would not be clear which social agents would be interested in seeing these policies applied on a wide scale in the region's countries, i.e., which agents would pledge their economic and political resources to initiatives of this type that went beyond the promotion of clusters, the great majority of which are in any case far from well-funded. Industrial policies have made a slow comeback in the region and have been able to operate, albeit on a small scale, in open economies with orthodox macroeconomic policies, despite the prior belief that the latter would be incompatible with the use of industrial policies. For these policies to have more than a marginal impact, social actors, including the State, will have to commit themselves to them and back them up with their authority and resources. And here the fundamental question arises: who has or might have an interest in proactive industrial policies while at the same time possessing the strength and resources to alter the current pattern of productive specialization?

(Original: Spanish)

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<sup>33</sup> This idea has been highlighted in Peres (1997), Stallings and Peres (2000) and Peres and Stumpo (2002).

<sup>34</sup> The programme proposes the creation of a public evaluation system to include strategic indicators, oversight mechanisms, mechanisms for coordination and participation in evaluation work, periodic reporting and an observatory of small and medium-sized businesses and microenterprises to act as an information source (Secretaría de Economía, 2001, p. 56).

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