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Industrial policies in Latin America

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Industrial Policies in Latin America

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Abstract

This paper analyses the main features of industrial policies carried out in Latin America since 1990. It studies these policies during import substitution industrialization and how they changed after the market-oriented economic reforms. It presents the main national strategies, policy lines and instruments designed in the region, as well as the return of sectoral policies to the public agenda. Special attention is paid to Brazilian industrial policies because they represent the most advanced experience in the region. The paper underscores that progress in policy design has outpaced improvements in policy implementation and evaluation, and discusses the importance of sector targeting, endogenous capabilities, institutions, and political will for industrial policy.

Keywords: industrial policy, clusters, policy implementation, Latin America, Brazil, implementation failures.

JEL classification: L52, N66, O25

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1 Introduction: industrial policy during import substitution industrialization

Industrial policies seek to change a country's production structure, which necessarily implies the creation of new industries (ECLAC 2007). In Latin America import substitution industrialization (ISI) prioritized the creation of new sectors and the diversification of the production structures, with the objective of changing the prevalent specialization pattern and increasing the weight of technology-intensive activities in the production structure. ISI also responded to the need of endogenizing the effects of domestic demand growth, channelling it to productive investments and avoiding fuelling imports, which would have deteriorated the trade balance.

In the 1970s most industry analysts highlighted that investment had two complementary effects on the economy. On the one hand, there was a supply effect through the creation of production capacity (capital accumulation), on the other hand, a demand effect on the production of capital goods. Given that the domestic supply of these goods was insufficient, the demand effect was mostly transferred abroad through increasing imports. Such process generated stop- and-go cycles derived from recurring trade imbalances. This, together with the recognition of potential knowledge and productivity spill-overs derived from technical progress embedded in capital goods production, were the rationale behind programmes to foster the domestic production of such goods in the largest countries of the region, mainly Brazil and Mexico.

During the ISI, industrial policies combined trade protection with investment promotion (both state and foreign investments were supported) and national development banks were the main financing agents. Two of the most notable examples of industrial policies in the region during the 1970s were the Second National Development Plan of Brazil, and the National Industrial Development Program 1979–82 of Mexico, which coincided with its boom in oil exports.

Industrial policies programmed the expansion of domestic supply in an effort to change the prevailing specialization pattern of the production structure. Three inter-related factors were at the basis of the strength of those policies: (i) the organization of the public sector development apparatus according to sectoral and even sub-sectoral structures,[1] (ii) the existence of sectoral business associations (chambers) representing the interests of private enterprises, which were the principal defenders of trade protection, and (iii) the existence of negative or positive sectoral preference lists in international trade negotiations, such as those carried through under the Latin American Integration Association, the Central American Common Market, the Caribbean Community or the Andean Pact. Although policies tended to focus both on the agricultural and the manufacturing sectors, the weight of the latter was such that the term 'sectoral policy' tended to be associated with policy for the manufacturing industry.

However, during the debt crisis and the 'lost decade' of the 1980s the ISI model was the object of serious critiques and industrial policies lost their leading role. There were several reasons for this: (1) public enterprises that had traditionally invested directly in new sectors were either privatized or closed, reflecting the new view that the state

1 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.

should play only a subsidiary role in economic growth, (2) the need to balance public finances meant eliminating subsidies, particularly fiscal ones and the subsidy components of credit operations, and (3) there was a (sometimes controversial) perception that many investments suffered from bad planning, poor project management and corruption, and in some cases implied high inefficiencies—the so-called 'white elephants'. Beyond these implementation problems that weakened the standing of industrial policies already in the 1970s, orthodox analyses insisted that these policies were bad per se and that the ISI strategy had been a big mistake which substituted (usually wrong) policy decisions for market signals. Thus, resources were misallocated—too much capital and too little labour were used in economies with scarce capital and an almost unlimited labour supply.

In this context, industrial policy became a sort of 'bad word' better not to be pronounced in 'correct' political discourses. Hence, industrial policy, at least in its more strict formulation, ended up being practically excluded from the new economic model that was established by market-friendly economic reforms. This loss of legitimacy of industrial policy, however, did not occur homogeneously in all the regions of the world. It was much pronounced in Latin America. For example, in several countries of East and South East Asia, active sectoral policies, sometimes even with targeting at the firm level, remained in force until the mid-1990s—fading gradually, and at different rates, as domestic production and technological capabilities were gaining competitiveness.

Apart from the orthodox economic arguments against industrial policy, political opposition to the new economic model came from agents who supported the previous paradigm, thereby consolidating the 'developmentalist vs. neoliberal' stereotype. Agents in favour of the economic reforms portrayed sectoral industrial policies as distortions in resource allocation and accused them of being at the origin of recurrent fiscal deficits that fuelled inflationary pressures and trade imbalances. Although most governments in the region shared this negative stance towards industrial policy,[2] such an extreme view did not always coincide with de facto policy measures. Even strongly reformist governments, such as those of presidents Menem in Argentina, Collor de Melo in Brazil, and Salinas de Gortari in Mexico, maintained certain sectoral policies, in particular for the automotive industry, beyond their plain support of the market-led economic model.

2 Industrial policy after the economic reforms

2.1 National strategies

Much of the region's experience in industrial policy during the Washington Consensus era is summarized by the term 'competitiveness policies' (Peres 1997). In the mid-1990s, almost all countries in the region designed programmes to support the competitiveness of their economies. In this respect we can identify three groups of countries. First, countries such as Brazil, Mexico, and some of the English-speaking Caribbean (e.g. Jamaica), elaborated policy documents specifically targeted to the manufacturing sector, analysing its role in national competitiveness and highlighting its

[2] 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.

linkages with technological development and with an efficient participation in international trade.[3] These documents constituted working agendas elaborated by the government together with the private sector, but did have neither the form nor the contents of former industrial development plans. Critics accused them of being 'programmes without targets' and, what was even worse, 'without resources'.

The focus on competitiveness pervaded also the Andean and the Central American countries. In this second group, the predominant approach was to enhance competitiveness of the economy as a whole, without explicitly targeting the manufacturing industry. The national competitiveness strategies were based on the cluster methodology, albeit under a variety of names, mainly, industrial agglomerations or 'conglomerates'.[4] From the policy implementation standpoint, those activities resulted in the negotiation and implementation of sectoral agreements between private agents and the government for specific value chains, where the latter played the role of catalyst or 'facilitator'.

Cluster development policies expanded quickly throughout the region. In some countries, they became the core of national competitiveness strategies; e.g. in Colombia, whose very pro-active and sustained strategy is strongly cluster based,[5] or in El Salvador, which has developed significant efforts to design policies to support small and micro firms within specific clusters (Ministerio de Economía 2005). Policies to promote clusters have been extensively implemented also at the sub-national level, and countries such as Mexico and Brazil built up strong capabilities to support local development. Incentives for the footwear cluster in the state of Guanajuato or the electronics industry in the state of Jalisco (Mexico) are two relevant examples (Unger 2003; Dussel Peters 1999). In Brazil the main player has been the Brazilian Service to Support Micro and Small Enterprises (SEBRAE), which implemented programmes throughout the country—one of its most extensive programmes has been the one to develop local clusters (*arranjos produtivos locais*, APL). The legitimacy enjoyed by cluster policies, especially among international financial organizations, has facilitated their acceptance by governments. At the same time, the general consensus on cluster policies led to include under this category a mixed series of public support programmes which indeed have neither a production chain nor a geographic conglomerate scope.

The third group of countries includes those that did not implement any formal industrial policy or selective national competitiveness strategy, focusing basically on horizontal

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3 Pérez Caltendey (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 targeted the manufacturing and service sectors, particularly hotels and tourism.

4 This approach was developed on the basis of Porter (1990), and was materialized in policy proposals by *Monitor Company* in the Andean countries in the early 1990s, and in the project 'Central America in the twenty-first century: an agenda for competitiveness and sustainable development', coordinated by INCAE/CLADS (Costa Rica) in the middle of that decade. In these countries, in the second half of the decade of 2000, the approach suggested by Hausmann and Rodrik (2003) and Rodrik (2004) to view development as a process of self-discovery contributed to the debate on industrial policy.

5 Colombia's 2008 National Competitiveness and Productivity Policy focuses on five strategies: development of world class clusters, acceleration of productivity and employment creation, reduction of the informal economy, support to science, technology and innovation, and horizontal actions to foster competition and investment (Gómez Restrepo 2009).

interventions.[6] Argentina, Chile, and Uruguay privileged neutral interventions that did not discriminate between sectors and which were basically oriented by firms' demand (contrary to the previous supply side-oriented model). However, those countries managed their horizontal programmes in a pragmatic way, introducing a sectoral focus every time that there was a 'sectoral' problem. Thus, in Chile the supposed neutral character of the policies did not prevent the government from directly supporting the forestry and the mining (coal) sectors and some key export activities for a long time (Moguillansky 2000).

Chile's approach to competitiveness began to change around 2005. The National Strategy of Innovation for Competitiveness presented in 2007 put special attention to actions aimed at developing some clusters, basically related to natural resources processing. This new strategy showed that policy makers were changing their perspective and accepting policies beyond horizontal or neutral ones, an approach which had prevailed in the country for decades (Agosín, Larraín, and Grau 2009). Early 2010, this strategy was complemented by the Innovation and Competitiveness Agenda 2010–20 that defined priorities at the cluster level and some horizontal 'bases' to foster innovation at the firm level and production diversification, all this supported by science, technology, and human capital development (Consejo Nacional de Innovación para la Competitividad 2007–08 and 2010).

2.2 Policy lines and instruments

Regional policies, even those with sectoral scope, have focused much more on enhancing the efficiency of existing sectors than on creating new ones (Melo and Rodríguez-Clare 2006; Melo 2001; Peres 1997). This is consistent with the search for greater penetration in international markets, grounded essentially on the pursuit of static comparative advantages (unskilled labour and natural resources). This has been the case both in countries with a diversified production structure, such as Brazil and Mexico, as well as in those whose production structures are concentrated in few activities. In the more diversified countries, it could be argued that there are few non-existent sectors, so a sectoral policy could only be detected at the level of specific products. Although this might be true, the evidence, especially in Mexico and to a lesser extent in Brazil until the 2008 industrial policy, suggests that sectoral measures have focused on strengthening and expanding existing sectors; the clearest example being the automotive industry.·

The creation of new activities appeared sporadically as a policy objective, mainly related to international trade negotiations aimed at increasing market access and to the attraction of foreign direct investment (FDI). Policy initiatives resulted in the expansion of Mexico's export platform in the framework of the North American Free Trade Agreement between Mexico, Canada, and the USA (NAFTA) (automobiles and transport equipment components, electronics and clothing); the promotion of the basic assembly activities (*maquiladoras*) in a number of Central American and Caribbean

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6 The term 'neutral' or 'horizontal' policy, which is widely used in the region, conceals the fact that any policy is bound to favour 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.

countries (clothing); and investments in privatized firms in the services and primary sectors in South American countries. Different combinations of sectoral policies and transnational corporations' strategies induced a certain level of production diversification. Nonetheless, this strategy had limitations, such as low value-added in the assembly activities, weak linkages to the domestic economy, and the consequent scant generation of endogenous technological capabilities (Mortimore 2002; Peres and Reinhardt 2000).

Three types of instruments have been used to attract FDI: direct incentives, basically export free zones and special tax regimes; creation of business friendly environments—rule of law, transparency, access to international markets, infrastructure, etc.—and development of specialized production factors, particularly skilled labour (Mortimore and Peres 1998). Most Latin American countries applied these three types of instruments; however, the first and the second were the most frequent. Rather similar tools have been used to promote investment in general, both domestic and foreign. Besides fiscal and credit incentives, governments tried to develop competitive environments (defence of competition and regulation of highly concentrated sectors) to reduce transaction costs (e.g. through deregulation) and to create conditions to attain economies of scale (sectoral agreements along value chains, support to network and cluster creation, etc.).

Policy instruments in the region enjoy different degrees of legitimacy. Thus, according to this criterion, we can identify three groups of industrial policies: winning, losing, and emerging (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 promotion and FDI attraction, this group also includes policies to foster science, technology, and innovation,[7] human resources development, support to small and micro firms—generally through establishment or consolidation of networks or clusters[8]— and local development, the latter two being closely linked. Acceptance of these policies stems from their assumed neutrality since they operate on factor markets (technology and labour), or because of their (also supposed) positive impact on job creation, basically at the sub-national or local levels.

Losing policies, in contrast, are clearly contrary to the prevailing free-market approach. They include direct fiscal subsidies, targeted credits with subsidized interest rates, trade tariffs, and government procurement. In terms of the latter, the situation varies from one country to another: while some use it nationally or sub-nationally, such as Brazil, in others it is out of the policy agenda because its use is deemed contrary to the goals of expenditure efficiency and transparency.

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7 A few years ago, most science and technology policies were concentrated in the largest or richest countries in the region; recently such efforts expanded to smaller economies such Nicaragua and Panama in Central America, and Bolivia, Ecuador, and Paraguay in South America.

8 A case in point is Bolivia, whose 2008 Constitution establishes that small and micro firms will be protected and promoted by the State (Article 318, II). See Ministerio de Desarrollo Productivo y Economía Plural (2009).

Emerging policies, which, among other, encompass competition policy, improvement of corporate governance regimes, regulation of infrastructure sectors where markets do not operate efficiently, or corporate social responsibility, enjoy increasing legitimacy, but have not yet reached consensus and do not have a strong constituency. Some countries have modern legislation and relatively strong institutions to enforce them, whereas in others, they are still at the discussion and decision stages. Usually such policies are not a significant item on the policy agenda.

Beyond the different approaches to sectoral policies, the region displays a strong convergence in terms of policy design over the last decade, centred around five basic elements: (i) emphasis on increasing international trade competitiveness; (ii) generalization of the legitimacy of horizontal or neutral instruments, which, as mentioned above, are not horizontal or neutral ex post; (iii) support for small businesses and micro-enterprises, basically for reasons linked to their job creation capacity; (iv) efforts to design science, technology, and innovation policies aimed at advancing towards knowledge-based economies; and (v) focus on sub-national or local economic areas. The boom of cluster support programmes provides the clearest example of the combination of these elements; the already mentioned SEBRAE programmes to support clusters in Brazil being the most important in the region.

This convergence has been extremely stable in the long run, which is an indication that the region accumulated capabilities and experience in policy formulation. Moreover, changes of government, even when there entailed a significant break with the countries' past policies, such as in Mexico in 2000 or Uruguay in 2005, have not produced major changes in attitudes towards industrial policies. The set of countries belonging to the three above mentioned categories is sticky. Two examples, albeit in different directions, are the constant marginal relevance of sectoral policies in Chile, and the continuity of cluster policies to support competitiveness in Colombia for almost two decades.[9] This progress in institutional development should not be overstated, because cases of programmes design just to overcome or muddle through short-term competitiveness problems are still frequent.[10] Even in Brazil, the policy for the automotive industry in the 1990 contained elements that pointed more to the rescue of a sector in crisis (unable to face external competition) than to a long-term oriented policy for supporting a leading sector (Bonelli and Motta Veiga 2003).

2.3 The reemergence of sectoral policies

Unlike other policies, which are considered winning, losing or emerging in almost all countries of the region, there is no consensus on sectoral policies. Whereas some countries have a discourse that clearly rejects such policies, despite providing some ad hoc sectoral support in practice, other countries recognize the validity of targeted policies for increasing the competitiveness of activities with strong growth or export

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9 Such agreements encompassed 41 production chains and sectors accounting for 86 per cent of all non-traditional exports. Of these, 31 are national and 10 regional, 29 correspond to goods and 12 to services. Not all of them are programmes for cluster 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 mobilizing entrepreneurs (Velasco 2003).

10 See Scarone (2003) on policies in Uruguay and Villagómez (2003) on the 2002–10 electronics industry programme in Mexico.

potential, or that are facing strong competition from imports. There is a double standard with respect to sectoral policies: some countries deny their usefulness, especially when they support the manufacturing sector, but when it comes to the support of agricultural, mining, and service sectors (e.g. tourism) the same countries use them openly, without facing any pressure to legitimize them.

The return of sectoral industrial policies has been a slow process. In this direction, after the 2001 crisis, Argentina selected nine production chains to be supported by the National Forum for Industrial Competitiveness and Production Chains.[11] The following year, Mexico launched its 2002 Economic Policy for Competitiveness that defined 12 branches to be promoted through sectoral programmes. Four of these were formulated after a short period (textiles and garments, leather and footwear, electronics and high tech, and software), while others took much longer or were not formulated. More recently, the Mexican government defined 'Ten Guidelines to Increase Competitiveness 2008–12' that include promoting the upgrading of the automotive, electrical and electronics, steel and aeronautics industries, and restructuring of mature industries such as textiles and garments, leather and footwear, furniture, toys, chemicals, pharmaceuticals and agribusiness, as well as support for biotech, nanotech, and mechatronics (Secretaría de Economía 2007).

As mentioned above, even Chile moved, in 2007–10, from pure horizontal policies towards a new approach to innovation, this time based on the selection of a set of priority clusters: selected foodstuff, mining, tourism, logistics and transportation, financial services, outsourcing, construction, and broadband internet (Consejo Nacional de Innovación para la Competitividad 2007–08 and 2010). Other countries, such as Costa Rica, Peru, and Uruguay, targeted development actions in even greater detail, supporting individual projects in given firms. Examples include investment incentives in megaprojects in the Peruvian mining sector,[12] measures taken by the government of Costa Rica to encourage INTEL to establish operations in the country (Alonso 2003), or tax exemptions in support of projects declared to be in national interest in Uruguay.[13]

Beyond these cases, the comeback of sectoral policies is best exemplified by Brazil. In November 2003, the government announced the Guidelines for an Industrial, Technology and Foreign Trade Policy (PITCE), which set out its strategic sectoral alternatives in four knowledge-intensive activities: semi-conductors, software,

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11 The sectors are wood and furniture, leather and leather products, textiles and apparel, agricultural machinery, building materials, software, biotechnology, natural gas for automobiles, and cultural industries. See Subsecretaría de Industria (www.industria.gov.ar/foros/institucional.htm).

12 In Peru, the main policies implemented in support of the mining sector in the 1990s were as follows: promotion and guarantees for FDI, 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).

13 The 1998 Investments Act allows the government to promote specific investments by declaring a project to be of 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).

pharmaceuticals and medicines, and capital goods.[14] This policy was accompanied by the creation of a new institution in charge of the coordination and implementation of that policy, the Brazilian Industrial Development Agency (ABDI). The PITCE marked the return of industrial policies to the country's development agenda.

As mentioned above, in 2008, Brazil launched its 'Productive (i.e. Production) Development Policy: Innovate and Invest to Sustain Growth' (PDP), which has an even stronger sectoral focus. Beyond horizontal, basically fiscal, measures and six strategic technological programmes under the control of the Ministry of Science and Technology,[15] this policy includes seven programmes targeted to leading sectors under the control of the National Economic and Social Development Bank (BNDES): aeronautics, oil, natural gas and petro-chemicals, bio-ethanol, mining, steel, pulp and paper, meat, and twelve industrial competitiveness programmes, under the direct control of the Ministry for Development, Industry and Foreign Trade (MDIC): automobiles, capital goods, textiles and garments, wood and furniture, cosmetics, civil construction, services, shipbuilding, leather, footwear and leather goods, agribusiness, biodiesel, plastics, and other sectoral programmes (Government of Brazil 2008; Ferraz, Nassif, and Oliva 2009). Up to now, this is the most advanced and ambitious industrial policy undertaken in the region.

Implementation of the PDP faced an immediate challenge: four months after its launching the international financial crisis changed most of the parameters this policy was based upon. The task then was much more to prevent a deep economic fall than to sustain investment and growth. However, Brazil's rapid recovery in 2009 and very fast growth in 2010 reopened space for the PDP and the country undertook its expansion for 2010–14.

In August 2011, the government that took office in January issued a new industrial policy (the *Plano Brasil Maior*) which implies a move towards a stronger role for horizontal policies, keeping some of the main instruments aimed at supporting labour- and technology-intensive sectors. The new plan has a wider scope than the PDP and includes policies not only to foster investment, innovation, and foreign trade, but also to protect the domestic market and local manufacturing. This is particularly important in a context in which the big appreciation of the local currency puts domestic production under hard competition from imports.[16]

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14 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 (MDIC 2003). These guidelines were strengthened by the Growth Acceleration Program, enacted in February 2007, which relies mainly on fiscal incentives.

15 The technological programs (health, ICT, defense, nuclear energy, bio- and nanotechnologies) prioritize areas of strategic importance for the medium- and long-term, and actually point, in some cases to the very *creation of a sector* and not to its strengthening, as it is for the nanotechnology.

16 See: www.brasilmaior.mdic.gov.br/oplano/brasilmaior

3 Implementation and evaluation

Latin American countries have made significant progress regarding industrial policy formulation. Most market-distorting policy instruments were eliminated or phased out, and subjects such as technological innovation, clusters and small and medium-sized enterprises (SME) were included, or became more important, in the policy agenda. Besides, governments now tend to approach industrial policy from a much more systemic view than in the past. In all these aspects, the reemergence of industrial policies in the region is not just the revamping of ISI policies, but a combination of new and old objectives and instruments, such as cluster development and structural change, or technology funds and state procurement, respectively.

Conversely, the implementation and evaluation of impacts are still weak in the region. Although there are some data on the funding allocated to certain policies (actually programmes or projects), the information is insufficient to evaluate implementation overall. Despite this, it has been shown that, with some exceptions, the degree of policy implementation in the region has been low, as already indicated in Peres (1997); particularly clear results 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 based on clusters development.

The situation in terms of policy evaluation is also unsatisfactory. Although there are assessments of a number of specific programmes,[17] together with general assessments of what happened *after* policy implementation or aggregate results (not always determinant by the policy being evaluated), impact evaluation in the region is sparse and not robust. It hardly ever identifies and tests cause–effect mechanisms. Lack of information frequently hampers policy evaluation. In addition, the instruments seldom explicitly establish the criteria and mechanisms for follow up and evaluation. Also, there is a lack of consensus on how to evaluate complex policies with multiple targets, objectives, and lines of action.

Even though the discussion usually focuses on the lack of evaluation of past and ongoing programmes, policies seldom reach the stage in which they need to be evaluated. Countries dispose of policies which have been formulated, approved and announced, but which are not always implemented. Various factors are responsible for widespread implementation failures and for the consequent shortfall between design and execution; among them we highlight the following.

Non-operational or unachievable goals

Objectives specified through declarative statements without setting clear, measurable goals, and without effective mechanisms for financial resource allocation, hamper policy evaluation. An evaluation of success factors in the 41 Colombian sectoral agreements shows that: (a) those with well-structured, quantifiable commitments and specific time horizons were easier to monitor and fulfil; (b) agreements with few and simple commitments tended to be more successful; (c) the leadership and decision-

[17] Two examples are Silva and Sandoval (2003) for SME support policies in Chile, and Baz et al. (2010) for a set productive development programmes in Mexico.

making power of the individuals who negotiated the agreements played a fundamental role; and (d) production chains in which support was carried out prior to the agreements achieved better results (Velasco 2003). Given that 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 attainable goals.

Lack of human and financial resources to implement policies

This issue is particularly relevant in small and poor countries which often depend on external aid (loans or grants) to design and implement their programmes. In addition to a lack of resources, policies are usually announced without considering their cost and the corresponding needed financing, assuming once again that 'first we decide and then we see what can be done and with what resources'. Moreover, given that financial and fiscal subsidies necessary for the implementation of the *winning* policies are themselves *losing* policies, a sharp contradiction arises. Thus, policy implementation deteriorates when governments that want to support industrial development through winning policies are seldom able to implement them because of the lack of effective fiscal and financial instruments.

Poor institutional capabilities

Nearly all of the countries of the region lack institutional capacity for policy management and implementation. This shortcoming is greater when policies aim to replicate international best practices, rather than responding to the needs of the countries interested in applying them. This tendency results in policy designs that are disconnected from reality, often promoted by institutions of scant political weight in the structure of governments, or by business associations that are unrepresentative and have little economic and political clout.[18] The problem is further aggravated by the tendency to separate the design from the implementation. Although countries can increase their institutional capacity over time, and some have done so in the region, institution-building requires stability of objectives for longer periods than the time horizon of a government (between four and six years). Also, the wide range of the fiscal pressure between countries, from less than 10 per cent to over 30 per cent of GDP, introduces differences in terms public resources available to support policies.

Weak economic signals

There is a proliferation of plans and programmes designed merely to respond to political pressures from economics stakeholders, for complying with conditionality to access international funding or to fulfill with legal or constitutional provisions. The will and strength the private sector showed to support the ISI is not present anymore. Business associations have scantly supported most of the recent efforts to diversify the production

[18] For example, in a recent evaluation of the implementation of several programs in Mexico, Baz et al. (2010) indicate that PDPs are often uncoordinated, redundant, or even incongruent with each other.

structure beyond competitiveness programmes.[19] Actually, tariff protection used during the ISI was a most powerful economic signal ('invest in a new sector and get rich'); nowadays many policies must be disguised under a 'market friendly' non-discriminatory approach. 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 a perception that 'policies do not work'.

Despite these limitations, in some countries there were significant efforts in institution-building for policy design and implementation. Thus, the Colombia National Competitiveness Commission or the Chilean National Council on Innovation for Competitiveness strengthened their operations, while Brazil put in place a complex institutional structure to implement and follow up the 2008 Production Development Policy. Under strategic guidelines determined by a National Industrial Development Council (CNDI)[20] and the general coordination of the MDIC, an Executive Secretariat—integrated by the Treasury (Ministerio da Fazenda), BNDES, and ABD—is the core policy operator. This sui generis institution aims at overcoming organizational bottlenecks within the government, where some powerful agencies operate with overreaching autonomy, not always paying attention to strategies designed at the highest hierarchical levels (Suzigan and Furtado 2006).

Moreover, in the last two decades many countries of the region increased their capabilities to create spaces for debate between public authorities and business chambers for policy design and, in a few cases, for implementation. Significant progress has been made in developing public-private dialogue. The process reached a stage in which the leadership of policy proposals has often been exercised by business associations.[21] Business chambers have participated actively in consultative forums discussing measures in support of competitiveness, such as the National Competitiveness Council in Colombia, the Production Development Forum in Chile, or the 'sectoral chambers' and National Industrial Development Council in Brazil.[22]

On the contrary, policy coordination with other civil society organizations has been much weaker. Although labour unions have participated in discussion forums, in general their presence has not been decisive for the dynamics of such mechanisms. An exception, however, is the role played by unions in Brazil, especially in the 'sectoral chamber' of the automotive industry. Other stakeholders played a marginal role, with the exception of the academic sector, which was directly involved in the efforts of the

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[19] 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.

[20] CNDI was created in 2006 and includes representatives of 13 sectoral ministries, the BNDES, and 14 business associations. It is chaired by the MDIC.

[21] Examples include the Asociación Nacional de Industriales of Colombia, the Confederación de Cámaras de la Industria de Transformación 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, which promoted an 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 policy consensus (Peres 1997).

[22] In Brazil, the expression 'sectoral chamber' (cámara sectorial) refers to a tripartite government-entrepreneurs-workers negotiation space.

National Competitiveness Council in Colombia and which participated in the design and management of the sectoral technology funds in Brazil.

Implementation failures and the perception that 'policies do not work' undermine their legitimacy and their acceptance, especially among their main beneficiaries: the entrepreneurs. This gives rise to the paradox that business people bemoan the lack of resources available for policies, while at the same time they fail 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 for industrial policies nowadays. 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, policy design should be accompanied, not followed, by explicit consideration of the institutions that will have to implement them. This means involving industrial policy stakeholders and creating institutions which allow this participation on a continuous basis. Although reform of the state and organizational development are not issues that are close to the industrial organization specialist, they need to be addressed to reduce implementation failures. Second, there is a need to increase the amount and the quality of human recourses specialized in policy design and implementation, prioritizing the latter, even through transfer of qualified personnel. A third line of action is to develop and strengthen the institutions and the individuals that link policy 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 implementation agents, such as business associations.

The countries of the region accumulated sensible experience in terms of policy management in the areas of macroeconomic policy and 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 local clusters), and should be used whenever possible, but experience shows that this approach is hard to replicate and it is not distributed according to implementation needs. Thus, economically weak areas that need major efforts from policy operators tend also to have weak private leaderships. The strengthening of intermediate implementation bodies has been a successful strategy in countries such as Chile, where it has been used to carry through programmes to promote SME networks, although they suffer from the predictable problems of adverse selection and moral hazard. Different arrangements are possible. None of them 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.

4 Conclusions

Industrial policies are the core of specialization or diversification strategies. There are five key points in elaborating an industrial development strategy: (i) the criteria for targeting production sectors; (ii) the mix of policy instruments associated to each objective; (iii) the constraints imposed by endogenous capabilities; (iv) political will; and (v) the institutional capabilities to manage that strategy and the amount and continuity of financial resources available for implementation. Regarding targeting production activities and sectors, the policy should recognize that, while there are no

blueprints for prioritizing sectors, history shows that countries have in fact chosen and continue to choose sectors on the basis of a few more or less precise criteria. 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, and their potential for productivity growth, are some of the general criteria used ever since by countries to identify sectors to promote structural change. These criteria are supported by others related to the strategic nature of certain activities, which basically reflect their importance in output, exports, or employment, usually at the national level, but also with a local or sub-national dimension.

From the 1980s, the technological 'dimension' has increasingly been used to define the scope of industrial policies. Although we can define industries or production sectors as sets of goods with high cross-price elasticity of demand, it is possible to define as sectors also sets of activities which share a technological path (Robinson 1953; Dosi 1988). One can therefore speak of the aerospace, biotechnology, or ICT sectors. To promote activities encompassed by a given technology, there are as many experiences centred on horizontal policies as others involving direct intervention at the level of firms, market segments, or knowledge networks. In practice, policies to promote clusters are frequently inseparable of 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 the 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 production 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 experimentation and trial and error, i.e. we need pragmatic rather than ideological 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.

In Latin America and the Caribbean, the tools available to implement industrial policies are well-known and present in the policy discourse. 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 level. Experience in the region suggests that the policy packages applied so far have not had the force to induce specific investment behaviour that protection had in the past, although the cumulative effects remain to be evaluated.

In the case of small economies, apart from these constraints, it has been argued that they not only should not develop sectoral policies, but in fact cannot do so. Without ignoring the importance of 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 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 that it is impossible to implement industrial policies, rather that their scope should be in accordance with those capacities. In other words, the alternative is to focus efforts downward rather than shooting wildly into the air.

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 themselves 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. First, 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. Second, 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, and increased productivity. When public resources are scarce, only sound evaluations can create space to divert resources from other policy areas to these ones.

Although these points are not new, they are crucial. Some progress has been made on this issue, examples being Mexico's Business Development Program 2001–06 or Brazil's 2008 industrial policy, which explicitly mention quantitative targets, improving previous practice. Nonetheless, progress in the region as a whole is 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 industrial policies are crucial for diversifying the production structure and fastening the pace of productivity growth, they 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, they hardly could have hoped for a better environment than that which exists today. At present, political parties or coalitions of parties that based much of their long-term platforms on the rejection of 'economic neoliberalism' are in power in Argentina, Brazil, Bolivia, Chile, Ecuador, Nicaragua, Uruguay, and Venezuela. Industrial policies 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. Even in the most advanced example of policy development and actions (Brazil), the perception is that a lot has to be done in terms of what is needed to change the production structure of the country. In short, there has been no significant action in most of the countries mentioned above to

change the current economic model, in terms of its pattern of production 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 financial 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. Naturally, once countries showed they held 'responsible' policies, their degrees of freedom increased, and, if they wanted to do so, they were able to undertake bolder actions to diversify their production structure. The most notorious case is Brazil's, and the most recent Uruguay's, where the administration that took office in March 2010 began almost immediately the formulation of an industrial policy for 2010–15, which includes significant sectoral components (Torres 2010).

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. If the second explanation is correct, one might conclude that the main concern of structural policy analysis should be to pay attention to governments that wish to carry out such policies, as they might not know how to do so and, if they did, would scarcely have the time needed for those policies to yield results that strengthen their position and allow them to remain in office.

Even if policies to diversify the production structure can technically demonstrate their capacity to generate positive impacts, it is by no means clear which stakeholders would be interested in generalizing them in the countries of the region. In other words, which stakeholders are likely to put their economic and political resources behind initiatives that go beyond support for cluster development, the great majority of which are in any case far from well-funded? 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 stakeholders, including the state, to take ownership of them and commit their power and resources behind them.

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