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What's New in the New Industrial Policy in Latin America?

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Abstract

Latin America was an aggressive practitioner of industrial policies (IP) in the years 1950–1980. During much of the period the general practice was in line with the then mainstream thinking in development economics. Significant growth, industrialization and modernization took place, but serious flaws in concept and execution of the IP caused them to fail as a vehicle for economic catch-up with rich countries in an era of an expansive world economy. A very serious Latin American external debt crisis in the 1980s, coupled with the ascendance in international discourse of arguments for retrenchment of the State in economics and life, contributed to a pendulum swing in the region to the policies of the so-called Washington Consensus. Major structural adjustments and reforms designed to bring the free market forward and push back the market governance of the State dominated the 1980s and 1990s. In recent years, however, countries in Latin America have witnessed a renaissance in the deployment of systematic IP. This paper explains why IP have emerged and why they are a necessary step for the more profound structural change needed to drive sustained high rates of growth. Based on illustrated cases which we think reflect the current state of affairs in the region, the paper highlights the nature of the shift to a more proactive state promotion of industrial and services upgrading, as well as the important new characteristics of the current outbreak of IP which are different from the ones of the past and offer hope for greater success. It also identifies a legacy of some bad habits which linger and need to be addressed with urgency if the new trend is to be successfully consolidated.

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What's New in the New Industrial Policy in Latin America?

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I. Introduction

Latin America has long been a laggard in economic catch-up, repeatedly during its history witnessing less developed countries leapfrogging it in economic growth and development (Coatsworth, 1998; Dominguez, 2008; Devlin and Moguillansky, 2011). The Post-war period has been no exception, with countries in East Asia only being the most notable.

Latin America was an aggressive practitioner of industrial policies (IP) in 1950-1980. During much of the period the practice was in line with the then mainstream thinking in development economics. Significant growth, industrialization and modernization took place (Ocampo, 2006), although not enough for catch-up in a generally expansive world economy. The IP approach, however, began to be seriously challenged in the 1970s when military governments in the Southern Cone shifted to policies favoring Chicago School monetarist thought, which had been much less influential in the development practice of the time. A profound Latin American debt crisis in the 1980s, coupled with the ascendance of Thatcher/Reagan arguments for retrenchment of the State in economics and life, created a pendulum swing in the region to what has been called neoliberal economic policy. Major structural adjustments and reforms designed to bring the free market forward and push back the market governance of the State dominated the 1980s and 1990s.

In recent years, however, countries in Latin America have witnessed a renaissance in the deployment of systematic industrial policies. This paper will overview the phenomenon based on illustrated cases which we think reflect the current state of affairs in the region. It will highlight why the new shift (but it is not of the pendulum type) has occurred, why it is in principle a positive development and why important dimensions of the current industrial policies in the region are different from the ones of the past and offer hope for greater success. It will also identify some bad habits that linger and which need to be addressed with urgency if the new trend is to be successfully consolidated.

Section II will outline why we think the application of intelligent and well-executed industrial policies are important for the catch-up of Latin American economies. Section III will address what is new in the new industrial policy in Latin America. Section IV will review what is still "old" in the new industrial policy of the region. Section V will address some slightly "existential" issues that have us still thinking about more complete answers. Section VI is our conclusions.

II. Why Industrial Policy Is Necessary in Latin America

There is an extensive literature justifying the deployment of industrial policy via government interventions in the market. The most generally acknowledged reason is the existence of so-called market failures that, when pervasive enough, will significantly retard the efficient allocation of resources. These typically fall into categories involving the existence of dysfunctional monopoly power, Marshallian externalities/spillovers of different types and the undersupply of public goods. However, modern justifications go beyond the static equilibrium-inspired market failure argument. These additional considerations incorporate dynamic factors such as systemic failures related to the generation of learning opportunities, capacity building, experimentation, innovation, as well as the incorporation of technical change for the diversification of productive activities and exports that are needed to climb up the world's hierarchy of production. This latter perspective moreover acknowledges that not all productive activities are the same in terms of their dynamic effects on agents; hence the role of industrial policy is to provide incentives to market stakeholders to explore the adoption of new processes and activities of a higher order, often in the face of obstacles that are not easily bridged by the autonomous forces of the market (Peres and Primi, 2009).

Latin America was a good student of the Washington Consensus era structural reforms (Lora, 2007). While this period has generated considerable debate about the effects of these reforms (Birdsall, de la Torre and Valencia, 2011), most would probably conclude that the era's positive legacy is the emergence of a consensus in the region that macroeconomic stability is essential for growth, the role of the private sector as a primary agent of investment and innovation, the importance of articulating with a globalizing world economy and the need to attend to the poor[1]. However, the growth experience in the 1980s-1990s was disappointing. This, coupled with the emergence of big competitive challenges in trade arising from liberalization--especially new free trade areas with industrialized countries-- and the better performance of countries less observant of the "market fundamentalism" that arose out of some of the more enthusiastic interpretations of the Washington Consensus, contributed to the gradual reemergence of the State as an active promoter of productive transformation. In effect, following Evan's (1995) terminology, Latin American governments have begun to advance from their mostly "custodian" role in markets-- regulating at arms' length—to a more proactive stance aimed at being a "handmaiden" of private sector competitiveness and productive transformation.

The stylized facts of Latin America's economic profile would suggest that there is considerable space for industrial policies to promote structural change and endogenous drivers of the high and sustained rates of growth needed to converge with rich countries.

The Caribbean Basin countries gained comprehensive preferential market access to the United States beginning in 1984 with that country's launch of the Caribbean Basin Initiative (CBI) and its "augmented version" in 2000. In the mid-2000s the CBI was converted into a comprehensive free trade area for Central America and the Dominican Republic. Meanwhile, in 1994 Mexico entered into a comprehensive free trade area with the U.S. called the North American Free

[1] This concern about poverty would be part of Rodrik's (2006) "augmented" Washington Consensus.

Trade Agreement (NAFTA). Both agreements gave rise to a strong growth of exports. The Economic Commission for Latin America and the Caribbean (ECLAC, 2008) showed that the preferential access also contributed to a very marked diversification of exports, generally considered to be a factor supportive of growth and development (Imbs and Wacziarg, 2003; Klinger and Lederman, 2006). The diversification additionally witnessed a sharp increase in the participation of low, medium and high tech manufactured exports, which could provide important opportunities for learning and entrance into new "product spaces" that would be conducive to economic upgrading (Hausmann and Klinger, 2006). But the same ECLAC study also showed that these advantages were not being fully exploited: the expansion of value-added in low and medium tech manufactures was markedly lower than the increase in the value of exports, reflecting the dominance of import-re-export assembly activities ("maquila") with the U.S. market. Moreover, in Central America the growth of many exports was in "undynamic" products that were losing shares in world trade.

The story for natural resource exporters in South America also exhibited rough edges. The commodity boom of the 2000s drove a concentration of exports, especially in the Andean area and Chile. These latter countries, which have their manufactured exports based to a large degree on natural resources, exhibit low intensity in engineering even when compared to other natural resource-based exporters such as Australia and New Zealand. Moreover, their exports have been overly represented by relatively undynamic products in terms of their growth in shares of world trade (ECLAC 2008). And while in the 2000s Latin America's economic growth was the best in 40 years, over-reliance on high commodity prices to drive that growth is a source of vulnerability (Inter-American Development Bank, 2008; ECLAC, 2010). Moreover, that growth has been undistinguished when compared to other developing regions (Table 1).

Table 1
Growth Rates in Developing Regions
(average annual % growth)

	2000-2009	2010	2011	2012
East Asia and the Pacific	9.4	9.7	8.2	7.8
China	10.9	8.5	9.1	8.4
Europe and Central Asia	5.8	5.2	5.3	4.0
Turkey	4.9	9.0	8.2	2.9
Latin America and the Caribbean	3.8	6.0	4.2	3.6
Brazil	3.6	7.5	2.9	3.4
Colombia	4.5	4.3	5.6	4.4
Mexico	2.2	5.5	4.0	3.2
Argentina	5.4	9 .2	7.5	3.4
Middle East and N. Africa	4.7	3.6	1.7	2.3
South Asia	7.3	9.1	6.6	5.8
India	7.9	8.7	6.5	6.5
Sub-Sahara Africa	5.1	4.8	4.9	5.3

Source: World Bank (2012) and World Bank World Development Indicators 2011

Finally, the entire region underperforms in competiveness. The region's participation in world exports of manufactures has grown little and its participation in services has fallen (ECLAC 2011). Meanwhile, only Chile and Barbados are in the top 50 of the more than 140 countries in the World Economic Forum's Global Competitiveness Index; and even so they do not perform well in dynamic sub-indexes like education and innovation[2]. This situation is concerning since the region risks being squeezed by China moving up into higher tech areas where Latin America has excelled (e.g., aeronautics, autos) and by low wage countries emerging as new labor-intensive exporters (e.g., in Africa and South Asia).

These outlined handicaps facing Latin America have been overcome by other countries that actively deployed industrial policies. Countries such as Singapore; Taiwan, China; and Ireland began their respective productive transformations with labor intensive assembly operations for export, much like Central America and the Dominican Republic today, primarily geared to creating employment. However, with ambition, forward looking strategies and proactive horizontal, as well as selective, public promotional policies, they diversified and upgraded into

[2] The OECD Program for International Student Assessment (PISA) scores for Latin American participants reveals poor student performances.www.oecd.org/edu/pisa/2009

higher value and more skill/knowledge intensive local production for export to eventually become wealthy countries (Devlin and Moguillansky, 2011). Likewise, countries such as Finland, Sweden and Malaysia moved beyond their original dependence on an abundance of natural resources to diversify into much higher valued-added skill and knowledge-based products and activities[3]. This did not happen via the “invisible hand” of the market, as public sector industrial policies of both a horizontal and vertical nature (including government procurement) helped build the local capacities needed to make the transition. These countries, along with Australia and New Zealand, which through local innovation have built value-added around natural resource exploitation, attest to the arguments of Stijns (2001) and Lederman and Maloney (2007) that natural resources are not a curse. However, they are a blessing only as long as one has a strategy that provides an answer to “how” natural resources can be exploited in a way that progressively diversifies and upgrades the overall level of skills and economic activity in the country for catch-up. Unfettered market forces are unlikely to do this; indeed, they may drive a country deeper into its static comparative advantage[4].

Industrial policies can address the low productivity traps of SMEs, which typically are major employers in Latin America. Horizontal policies for SMEs often are not enough. SMEs are highly heterogeneous in their potential and specific in their needs; hence assistance programs must be designed with that heterogeneity in mind.

Industrial policies also can promote much needed economic linkages from local firms that have become important international players, but have generated little spillover effects in the local economy. As an illustration, the conglomerates, Arauco and CMPC are two of the principal economic groups in Chile. In 2008 they entered into the top 30 forestry companies of the world, higher ranked than some Canadian and Australian lead firms in that industry. But rising to become big and important world players hides a stark national reality. There is no real public policy to promote the spread effects of activity in the sector. While in Australia and Canada the industry leaders are integrated into a large export-oriented cluster involving small, medium and large firms, in Chile the two conglomerates mentioned, along with a third, Massisa, dominate practically all segments of the market. The lack of a competition policy, as well as comprehensive public policy promotion of economic transformation, has impeded the upgrading and/or entrance of small and medium sized firms into the sector[5]. Unlike Australia and Canada, the activities have not led to real “territorial” development of which the three firms are a contributing member. Rather, the firms oversee a strategy based on extensive exploitation, precarious employment situations in areas with the highest indices of poverty and where there is the exclusion of community involvement.

[3] Yla-Anttila and Palmberg (2007); Blomstrom and Kokko (2003) and Mamood (2000)
[4] This seems to be a problem in oil rich Norway.
[5] Interview with a high level official in the Ministry of Agriculture. Also see “Colegio de Ingenieros Forestales (n.d.).

The privatizations of the era of the Washington Consensus contributed to the enlargement and diversification of the economic activities of local economic groups[6], some of which have gone multinational in their economic activities[7]. However, while these firms have scale, talent, and import the latest machinery and equipment, many have not been leaders in locally-based development (Tavares, 2005) or innovation and investment in R&D, which overall is very low in almost all Latin American countries. Indeed, the whole area of promotion of innovation and R&D, as well as creating networks of collaboration among business, academia and government, is a prime area of action for industrial policies in Latin America. Meanwhile, although almost all Latin American countries have programs of FDI attraction, that is not the case for effective strategies to leverage FDI for economic upgrading and spread effects in the local economy (Mortimore, 2008). Ireland, Singapore, Malaysia, among others, have used industrial policies to do precisely this with their FDI attraction programs (Devlin and Moguillansky, 2011).

Another area ripe for industrial policies in Latin America is the preparation for climate change. Climate change not only brings threats, which should be anticipated and addressed by firms and society, but also opportunities in terms of new technologies and emerging comparative advantages. Latin America was very late in responding to the opportunities of the advances in ITC (ECLAC, 2008). The systemic dimensions and implications of climate change are unlikely to be addressed with alacrity by the autonomous forces of Latin American markets. Promotion of strategic thinking and research in this area, and coupling it with the commercial needs of defending and/or creating comparative advantage, is a natural area for industrial policy.

III. What's New in the New Industrial Policy in Latin America?

Industrial policy itself is not new to Latin America. In the early 19th century, reforms of the newly independent Latin American countries significantly reduced the Spanish colonial legacy of state intervention in the economies, but did not eliminate it. Nevertheless, the power of the normative laissez-faire economic framework of the second half of that century contributed to putting the State in a decidedly subsidiary role *vis-a-vis* private sector market initiatives. However, in the early 20th century state enterprises began to take on a higher profile in the economies of the region, including in directly productive activities. Then in the Inter-war period

[6] For example see Paredes and Sanchez(1994); Gechunoff and Canovas (1994); Fernandez(2000); Alarco and del Hierro (2010).
[7] See Santiso (2008), and AméricaEconomía (2010).

State interventions in the economy gained much more traction when private markets faltered due to the Great Depression and wars[8].

While much of the State intervention in the interwar period was reactive—filling in where markets objectively failed—in the Post-war era of 1950-1980 State expansion in the economy became proactive, leading Ocampo (2006) to call it the era of "state-led industrialization". In this period of "mixed capitalist economies" public sector indicative planning became the norm in the region and public sector promotion of industrialization was quite pervasive[9]. Planning exercises moreover received support from the World Bank and the U.S. official sector as part of the Alliance for Progress.

The strategy at the time was largely "inward-looking" and more popularly identified with the moniker "import substitution industrialization", or ISI[10]. The period witnessed important advances in industrialization, institutional modernization and respectable average rates of economic growth. However, growth was volatile and punctuated by episodes of fiscal and balance of payments crises (Ocampo, 2006). Moreover, political instability was reflected in cycles of authoritarianism and democracy. The imbalances of the ISI process had its counterpart in accumulation of foreign debt, especially with international commercial banks, starting in the mid-1960s. Contagion in the international financial market in 1982, sparked by payment problems in Mexico, delivered a full blown debt crisis to the region. The crisis of the 1980s and the consequent wrenching and asymmetric adjustments between debtors and creditors contributed to politically delegitimizing the state-led industrialization model of development (Devlin, 1989).

Latin America's economic policy and adjustments throughout the decade of the 1980s were supported by the conditional financing programs of the IMF, World Bank, regional development banks and the linked debt rescheduling/ refinancing by international commercial banks. The policy platform advocated by these institutions, and which was generally in line with the thinking of a new guard of economic policy makers that emerged in the region, was directed at macroeconomic stabilization, liberalizing the economy and dramatically reducing the footprint of government in the promotion of industrialization. The ethos of the time was expressed in the policy lines of action of the so-called Washington Consensus (Williamson, 1990).

The Consensus involved reforms in ten rather generic policy categories. Rodrik (2006) later added ten more of an institutional orientation which he thought reflected the expanded thinking of the Washington Consensus reforms promoted in the 1990s. The interpretation of

[8] See for example Solari and Franco (1978), Pinto (1973), Ortega 1989, Ocampo (1984) Devlin (1994) and Gonzalez (2012).
[9] See Table 6.1 in Devlin and Moguillansky (2011), which presents the national plans of the era.
[10] Ocampo's (2006) moniker is more technically correct.

“how” to give policy and institutional reforms a precise configuration was open to interpretations. The space for interpretation sometimes led to rather unnuanced “one size fits all” recommendations and applications of reforms (such as rapid privatizations at any price and relatively rapid and across-the-board liberalizations), some of which probably caused Williamson himself to stutter.

What united the advocates of the Washington Consensus was “more market, less government intervention”, pushing the state back mostly to what we termed earlier a “custodian role” in the governance of markets. In the more extreme interpretations of this approach, government almost became an “inferior good” that maybe had to be tolerated but certainly could be dramatically shrunk. A logical conclusion in this framework is that the best industrial policy is no industrial policy at all.

Be that as it may, during the 1980s and 1990s the idea of industrial policy was highly polemical and very out of step with mainstream thinking in academic circles, the policies of Washington-based institutions and the thinking of policy makers in Latin America. That is not to say that industrial policies disappeared altogether. Governments did introduce gentle incentives largely of the horizontal type; for example, to promote exports or attract FDI. Even sector specific incentives were sometimes introduced. However, these generally were not a well-focused strategic application of incentives beyond faith in the benevolent forces of the market; they often were the result of the pressure of some interest group. A*d-hoc* interventions would accumulate over government cycles creating a virtual “archeological park” of incentives[11].

In the late 1990s reform fatigue set in in Latin America. As mentioned earlier, despite being a good student of the Washington Consensus, economic growth was generally unremarkable— a sensation of “pain but no gain” emerged in the region. Moreover, ambitious unilateral, multilateral, regional and bilateral trade liberalization created major challenges for the private sector, which was now supposed to be the engine of growth (Giordano and Devlin, 201; Tussie, 2011); indeed, new free trade areas with the U.S. and Europe—where the liberalization was very asymmetrically weighted by the Latin American economies-- were an especially strong wakeup call for the private sectors. Parallel to this there was increasing criticism of the “one size fits all” and “fundamentalism” perceived in interpretations of the Washington Consensus (e.g., Stigliz, 2002; French-Davis, 2005; Rodrik 2006). There also emerged some major studies highlighting the role of industrial policies in the development of success cases of the Post-war era (e. g., Wade, 1990; Evans 1995; Devlin and Moguillansky, 2011) and new thinking about frameworks of modern industrial policy (e.g., Wade, 1990, Chang, 1994; Evans 1995; Rodrik 2004; Hausman and Klinger 2006; Hausmann and Rodrik 2006; Hausmann, 2008; Sabel 2009; Reinert 2009; Cimoli, Dosi and Stiglitz, 2009; Lin and Monga 2010; and P. Aghion et. al. 2012).

[11] Baruj, Kosakoff and Porta (2006)

It is in this environment that more proactive State action expressed in strategically-designed industrial policies began to reemerge in Latin America. There was a sense in many countries that good macroeconomics and market liberalization was not enough for structural transformation and accelerated growth for catch-up. However, the industrial policy being deployed in the region has a number of new dimensions that contrast with the "old" industrial policies pursued in the Post-war era prior to the crisis of the 1980s.

A. An Significantly Different Context for Deploying Industrial Policies

Context matters for effective industrial policy. Today Latin America is the most democratic developing region in the world and hence governments are more accountable for their decisions than in the past. A culture of macroeconomic stability has taken root regardless of ideology with a consequent reduction of vulnerability to internal and external shocks. Most countries see the private sector as the lead agent of productive transformation. The countries' economies are now relatively open, while export diversification and upgrading are now appreciated as handmaidens of productive transformation. FDI is generally welcome.

B. A Main Focus on International Competitiveness

The old industrial policy in Latin America was designed to catapult countries rapidly into the higher echelons of industrialization. An iconic initiative in this regard was Brazil's Second National Development Plan 1975-1979, which in the face of serious uncertainty in the world economy aimed to build self-sufficiency in strategic areas[12]. In this era of Latin America industrial policy there was something of a denial of comparative advantage, while competiveness was at best was an afterthought given the high levels of industrial protection of that time-- average nominal tariffs typically well exceeded 100% (Thorp, 1998)[13]. Effective protection of course was much higher due to significant tariff escalation. In contrast, the new industrial policy in the region has been primarily motivated by a goal of enhancing the international competitiveness of existing industries, what Hausmann, Rodrik and Sabel (2008) call industrial policy "in the small". This reflects the pressures arising from more open economies in the age of globalization, competition from free trade partners and the specter of losing domestic and international market shares to Asia. Illustrations of this trend in developing strategic competitiveness strategies are found in Brazil, Chile, Colombia, the Dominican Republic, Ecuador, El Salvador, Mexico, Panama, Peru and Uruguay (Table 2).

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[12] The Plan gave birth to some notable successes in ethanol based on sugar cane and the development of deep sea oil drilling by Petrobras. Previous plans gave rise to other Brazilian champions of today such as its agroindustry and Embraer.

[13] Exports were seen as more of a balance of payments financing tool than a vehicle for learning, innovation and growth.

Table 2

Illustration of Industrial Policy Strategies in Selected Countries

Country	Program	In the Small	In the Large
Brazil	PITCE (2003-2007)	X	X
	Productive Development Policy (PDP)-2008-2010	X	X
	Plano Brasil Maior 2011-2014	X	X
Colombia	Vision Colombia 2019 and 2032	X	X
	National Competitiveness Policy	X	
	National Development Plan 2010-2014 (PNP)	X	X
	Program to Promote World Class Sectors (included in PNP)	X	X
Chile	2007 and 2008 National Strategy for Innovation	X	X
	Competitiveness Agenda 2010-2020*	X	X
Dominican Republic	National plan for Systemic Competitiveness	X	
	30 Year Development Strategy	X	
Ecuador	National Development Plan 2007-2011	X	

El Salvador	National Development Plan 2010-2014	X	
Mexico	Vision 2030	X	X
Panama	National Concertation	X	
Peru	National Competitiveness Plan 2003-2010 National Competitiveness Agenda	X X	
Uruguay	Industrial Development Strategy (2008) Sectoral Industrial Plans (2011)	X X	X X

*Discontinued by the current government

Source: The authors based on Official Data

Table 2 also shows that some of the strategies combine with promotion of new activities, which would fall into the Hausmann, Rodrik and Sabel industrial policies "in the large". However, many of these more ambitious initiatives are "in the large '*light*' ", i.e., they are not grand bets distant from existing comparative advantages or learning capabilities. As an illustration, Table 3 lists the initiatives in Colombia for productive transformation that aim to build capacities leading to new world class sectors/activities in that country. In Chile, the 2007 innovation strategy's push for new activities was focused on cluster development of eight carefully selected sectors, but most are based on activities close to country's abundant natural resources[14].

[14] The current government, which entered power in 2010, suspended the strategy launched by the opposition. The National Innovation Council for Competitiveness announced a review of the strategy of innovation in April 2011: http://www.cnic.cl/

Table 3

Colombia: Industrial Policy in the Large

Program to Promote World Class Sectors	PND New Sectors based on Innovation
Outsourcing of Business Services	ITC
Software	Health
Cosmetics	Biotech
Fashion and design	Electronics
Electric energy and transmission	Logistics
Auto parts and vehicles	Design
Chocolate Confection	Energy and Natural Resources
Health Tourism	Creative industries

Italics= new major export sector under the program of World Class Sectors

Source: Ministry of Planning, National Development Plan 2010-2014

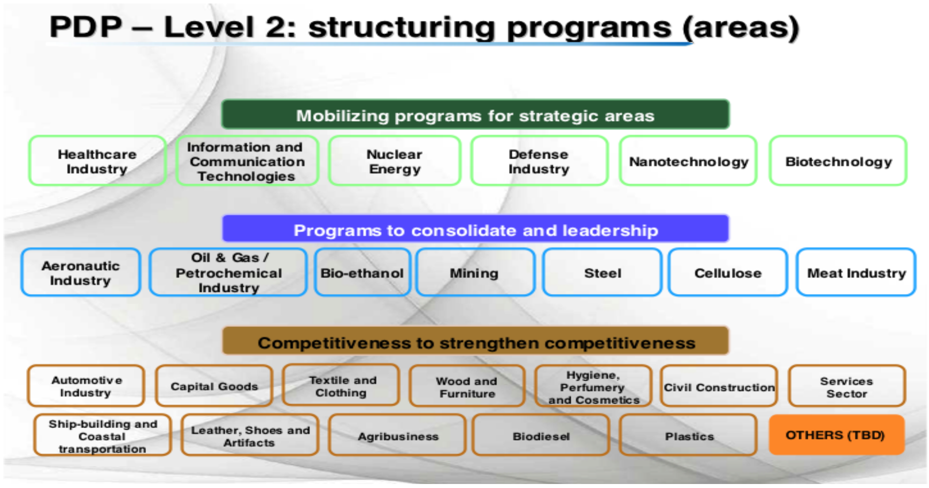
Latin America's most ambitious industrial policy is in Brazil, which began in continuum with the Industrial, Technological and Trade Policy, or PITCE (2003-2007), continued with the Productive Development Policy, or PDP (2008 -2010), and now is expressed in its closely related follow-up Plano Brazil Maior. While one of the objectives of the industrial policy in the PDP period has been the diversification of the productive structure, enhanced productivity and exports with special emphasis on innovation, in fact much of the effort appeared to have focused on consolidating competitiveness as well as the international investment expansion of existing national champions in resource-based industries (Programs to Consolidate Leadership in Figure 1)[15]. Promoting national champions for market positioning, learning and upgrading, linkages to the domestic and international economies, etc., is a legitimate goal of industrial policies. Whether the promotion of Brazilian national champions is serving as an eventual platform for new upgraded comparative advantages, and whether the already large firms needed BNDES financing to conquer the world market are issues that merit more investigation (Almeida and Ross Schneider, 2012)[16].

[15] The focus on competitiveness of areas of existing comparative advantage gained a higher profile in the PDP after public criticism of the PITCE, which aimed principally at four high technology sectors: biotechnology, ITC, semiconductors and pharmaceuticals.

[16] Zebral (2011) argues that the PDP was aimed at bolstering the traditional "clientalist" network of big Brazilian firms.

Figure 1

Brazil: Areas of the Productive Development Policy



Source: Federal Government of Brazil

Apparently the new Plano Brazil Maior now is focusing more on infrastructure, strengthening productive chains, export diversification with more value-added and innovation, oriented especially to SMEs, and more recently on defending domestic industry from the effects of merciless exchange rate appreciation and economic slowdown.[17] In spite of risks of overly defensive adjustments to confront potentially destabilizing external developments, some of the spirit of Brazil's reentry into comprehensive industrial policy expressed characteristics which have been associated with success in economic catch-up: concern for "what" one produces in the world hierarchy of production and ambition to build capacities to upgrade the level of economic activities[18]. The challenge will be to progressively translate that spirit into effective forward looking programs.

As for Mexico, Vision 2030 and the National Plan focus mostly on horizontal[19] and specific sectoral initiatives to improve competitiveness; however, there also are robust industrial policies at the state level[20]. In Peru, the National Competitiveness Plan of the National Competitiveness Council started out with an enormous number of initiatives and goals, but few got off the ground due to difficulties in priority setting and financing (Devlin and Moguillansky 2011). The major achievement has been accomplishment of a "Doing Business Initiative". The government is currently focusing on developing a new 2-year initiative focused on competitiveness. In Panama, the National Concertation has an ambitious social and economic

[17] Véase Gobierno Federal de Brasil (2011)

[18] A paradigmatic case is Korea which rejected advice" to do what it does best and trade for the rest". The strategy was to continuously build new capacities in order to climb up the world's hierarchy of production. (Prestowitz, 2012)

[19] A special emphasis has been placed on the competitiveness of SMEs.

[20] See Palacios(2008) for an example of industrial policy initiatives in Jalisco

agenda through 2025. One of its four pillars is competitiveness, although goals set out here are more aspirational and less precise than some of the social-related pillars.

In the context of the renewed interest in medium-long term strategic thinking and industrial policy, it also should be mentioned that a new dimension is the explicit focus on innovation. This led the launch of industrial policy in the aforementioned Chilean initiative and is an important complement in the strategies of Brazil[21], Uruguay, México and more recently Colombia. This too is a healthy development since innovation is now leading transformation strategies in many of the region's competitors in the developed and developing world (Devlin and Moguillansky, 2011).

In sum, the application of the new industrial policy is mostly aimed at international competitiveness around existing comparative advantages, and where it strays into new activities the distance from the former generally is far from heroic, if at all. Moreover, although there are so-called vertical initiatives in many of the national strategies (especially Brazil), horizontal, or relatively neutral interventions, seem to have high profile in most all of the schemes[22]. Ambition and intelligent strategic bets aimed at experimentation, learning and upgrading for catch-up are hallmarks of successful countries (Devlin and Moguillansky, 2011). However, the conservative and gradual approach exhibited in Latin America seems appropriate given past tendencies of "overreach" and capability limits of a public sector that is now just reemerging as a proactive player in productive transformation. One must learn to walk before running.

C. Financing

Another new feature of the new industrial policy is financing. The formal national plans of the old industrial policy were often unfinanced in whole or in part and hence their words often did not translate into deeds. The new industrial policy displays more financial commitment in a significant number of countries, perhaps also reflecting more efficient fiscal management. Brazil's industrial policy has the active participation of the Ministry of Finance and the robust support of the BNDES, the largest public lender to Latin America. Through a number of instruments the BNDES has financed exports adversely affected by exchange rate appreciations,

[21] While innovation is part of recent Brazilian strategies, the fact is that the country has a long history of innovation in agro-business, energy and natural resources, aeronautics, etc. Brazil is the only country in Latin America that has consistently stood out for its expenditure on R&D (recently 1.1 % of GDP).

[22] For instance, in Chile 90% of the resource allocation was envisioned for "neutral" support of innovation (Consejo de Innovación de Chile, 2008). In Colombia, the National Competitiveness Policy has focused on transversal initiatives across sectors involving 5 strategic pillars and 15 plans of action. Meanwhile, Brazil's Central Bank President has recently indicated that his country will strengthen the horizontal modes of industrial policies (Wheatley and Rathbone, 2012).

credits for small and medium enterprises to raise their competitiveness, innovation and the international expansion of national champions[23]. Chile's program had a special Innovation Fund financed from copper mining royalties. Panama's National Concertation plan, with many precise goals up through 2025, receives earmarked commitments from receipts of the newly, expanded Panama Canal. Meanwhile, Colombia's National Competitiveness Policy is annually fully budgeted as an integral part of the National Development Plan. The National Planning Department is also studying multi-annual budgeting for competitiveness initiatives that require long term investments. Moreover, this could be facilitated by a new regime of royalties on petroleum and mining. As for the World Class Sectors Initiative, it had been without financing (Moguillansky, 2012).

In El Salvador, the government transparently indicates (and itemizes by the goals in its National Development Plan) that about 35% of the financing is secure with the rest explicitly under negotiation with donors. In Uruguay, the country's industrial sector plans do not have ex-ante financing, but rather they must be solicited once there is tripartite agreement; sources are a national training agency, multilateral agencies, bank loans or special funds under the administration of a ministry.

Meanwhile, Peru and the Dominican Republic have relied exclusively on multilateral agencies and donors, which has disadvantages. There is the conditionality of the lender or donor's agenda; one is forced into the external agencies' financial cycle and the time consuming procedures for approval and disbursement; and coverage often falls short of the complete spectrum of activities needed to integrally enhance competitiveness and upgrade economies. Finally, heavy reliance on external funding can dilute ownership of the initiative and commitment within the government itself.

Notwithstanding the mentioned advances, there are other weaknesses exhibited in Latin America. Budgets for executing agencies can be weighted more toward operational expenses than promotional programs leading to too little resources being spread over too many programs. This problem was observed in Chile in the area of innovation and competitiveness, leading to the recommendation that resources be concentrated in the most promising initiatives (Agosin, Larraín and Grau, 2009). Excessively complex procedures and slow bureaucratic responses to applications submitted to support programs discourage private sector participation. Another common problem is that initiatives with of a medium-long term nature, such as research and innovation, are prisoners of the uncertainty of short term budget cycles; this uncertainty can affect the credibility of the program for potential clients. Establishing special earmarked funds such as one finds in some European countries—and what

[23] Some have expressed concern for inadequate allocation of resources to SMEs, which perhaps is being remedied in Plano Brasil Maior

Chile had done for innovation and which may emerge in Colombia--could be an approach to consider[24].

D. Public-Private Alliances

In the old industrial policy in Latin America, strategies and programs were very much State-led in a relatively "top-down" spirit. In Evans' (1995) framework the state at that time in many ways acted as a kind of "demiurge". This was due to distrust of private sector capacities, coupled in many cases with sharply diverging ideological stances on economic development and politics. The picture has changed quite dramatically in the age of the new industrial policy.

One of the new dimensions of thinking about industrial policy is the recognition that it is not possible for governments to formulate effective industrial policy on their own; i.e., the bureaucratic model of development that was associated with many of the Post-war success cases is no longer viable. Today the world is different place for countries aiming to catch-up. Globalization has retaken its path of hyper-expansion after shedding the effects of the Great Depression and war. Liberalization of national and international markets has been pervasive and privatizations have pushed back direct state participation in productive activities. The private sector is now considered by most to be the engine of growth. Technological change and world competition is of increasing intensity. Globalization is creating centripetal forces of world integration. Manufacturing, and even services, are increasingly articulated by global production chains, world networks and domestic or regional clusters. Innovation is still taking place in vertical settings, but increasingly new knowledge and its diffusion is network-based with a growing international character (Sabel, 2009). Policy space for State action is circumscribed by WTO rules which have many gray areas that must be identified and navigated. New, still not fully defined challenges and opportunities are on the horizon due to climate change. Hence with all this, while probably always a truism, today more than ever, as Radosevic (2009) observes, "all views are partial" in assessing market developments.

Consequently the new industrial policy disassociates itself with government "picking winners". Rather governments should work with the private sector in search of opportunities and related obstacles to experimentation, learning and upgrading economic activities. In this context industrial policy becomes an "outcome" of a "social process" of exploration and problem-solving carried out by relevant players in the private sector and government (Rodrik, 2004). Moreover this collaboration must be close, but accomplished without capture of the state by

[24] A management rule of thumb for innovation is that the closer the supported activity is to the market, the more there should be full pay or co-pay by the beneficiary, while the more distant it is to the market the more likely a grant is appropriate (Devlin and Moguillansky, 2011).

special interests, or what Evans (1995) called the government's achievement of "embedded autonomy".

Ultimately governments are, as Hausmann and Rodrik (2006) point out, "doomed to choose" among different policy options for supporting private sector articulation with market opportunities. Thus the idea is that working together in a socially constructive way that recognizes mutual interdependence, an alliance of government and business can contribute to the development of more intelligent strategies and more effective public programs to enable market–based productive transformations than if each addresses challenges individually (and possibly in a context of mutual distrust). In other words, the whole can become more than the sum of its parts in a joint governance of the market[25].

Other social actors may potentially contribute valuable insights and information depending on the issue(s) in question. And/or they may have veto power over policies and hence must be brought in under the tent. Labor unions have valuable contextual information in the workplace and issues such as wage and work rules that condition the action of firms and their productivity. Moreover they can politically veto public policies favorable to the business environment. Academia has technical expertise and can verify/reject/ add information provided by stakeholders. And certain organized social groups have *de facto* vetoes over the allocation of public resources, so they too may be bought into the tent to enhance public understanding of strategies, policies and programs[26]. Moreover, democratic principles are increasingly ruling developing countries in the era of globalization, creating demands for more civil participation and transparency in policy processes and more public accountability for the policies pursued. Latin America is no exception.

It also is very important to add that public-private alliances for productive transformation are not only about building new capacities in the private sector. Government must be able to be a

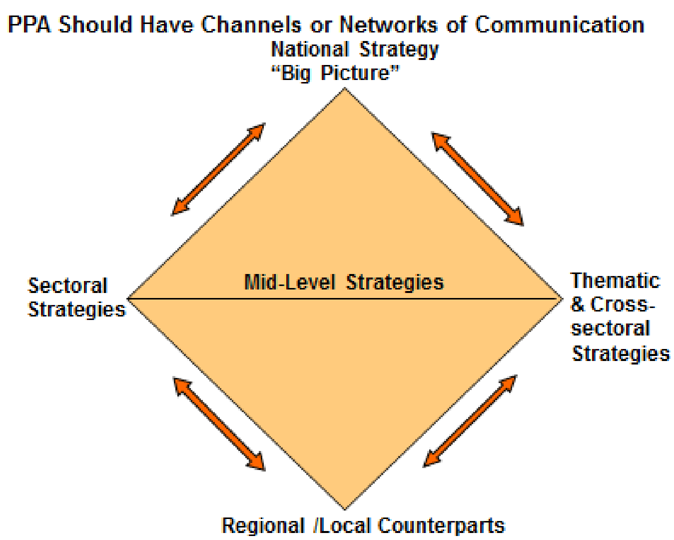
[25] Some strains of thought doubt business and government can work together without capture. The origins of this go back to Adam Smith (1965) as cited in Herzberg and Wright (2006): "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or on some contrivance to raise prices…But though the law cannot hinder people of the same trade from sometimes assembling together, it ought to do nothing to facilitate such assemblies, much less to render them necessary ". Some modern day schools of economic thought have tended to be skeptical of private-public economic policy alliances because of distaste for its corporatist overtones and belief in the logic that self-interest leads attempts at collective action to degenerate into concessions for special interests (e.g., Buchanan and Tullock, 1962). However, there is ample evidence that private-public alliances can be an effective tool for industrial policies and reforms more generally (Herzberg, 2004 and Griffins and Zammuto , 2005).

[26] In Ireland the national public-private alliance council was critical in developing a social consensus on the allocation of a large sum of public monies to support innovation rather than on more popular social issues that had gained the attention of the public (Devlin and Moguillansky, 2011).

credible technical partner of the private sector if the latter is to actually commit time and resources to serious collaboration.

Alliances can operate at different levels: national, department, region, or even a municipality. They can as well operate with a view to the economy-as-whole for an overall national strategy, to a sector, across sectors and themes. Ideally the different levels should "talk" to each other as illustrated in Figure 2. In terms of organization of alliances, the dominant structure in any country can be formal forums or councils, ad-hoc task-specific committees, informal networks of tacit information or some combination of these (Devlin and Moguilansky, 2011).

Figure 2
Public-Private Alliances Talk to Each Other



Source: Devlin (2012)

Since the second half of the 1990s there has been the emergence in Latin America of public-private alliances geared towards giving strategic direction to industrial policies and overseeing their implementation. Table 4 illustrates a number of them. Some of the alliances "fly" higher over the policy terrain than others.

Certain alliances are meant to provide advice to the executive on the overall direction of the economic policy and to have a strong political dimension as well given their pretension of drawing stakeholders together into a common national endeavor which gives legitimacy to industrial policies. This would be the case of the formally structured Economic and Social Development Council (CDES) of Brazil, the National Accord in Peru, the National Planning Council in Colombia, the Economic and Social Council of El Salvador, the Consultative Council of

Business in Ecuador and the ad-hoc consultations by the Mexican Presidency to construct Vision 2030. All but the mentioned Ecuadorean council have very broad civil society representation. The National Concertation of Panama—broad civil society participation-- is particularly interesting; it generated a real national pact on objectives, goals and strategic directions for the economy up through 2025, with commitments of financing from the Panama Canal revenue. Moreover, the National Concertation pressured and got a Fiscal Responsibility Law passed that requires every new government to present a plan on how it will spend Canal revenues in light of the national agreement on development priorities.

Other alliances are not without political dimensions, but are set up to fly closer over the policy terrain. Brazil's CNDI, made up of 23 ministries, 14 representatives of business and the President of the BNDES, had its origins in the PITCE and continued in the era of the PDP for the officially stated purpose of defining and assisting coordination of the strategies. The alliance for the PDP also extended to public-private sectoral and state councils.

Colombia has a tradition going back to the mid-1990s of public-private collaboration in the design of economic initiatives. Collaboration suffered from discontinuities between governments, but there has been greater continuity since 2006. The National Competitiveness Commission, with government, business, academic, union and regional representation, has guided the strategy and policy underpinning the National System of Competitiveness. The government, business, and labor representation on Peru's National Competitiveness Council was formed with a similar function in mind, as is the government-business National Competiveness Council of the Dominican Republic. Meanwhile Chile's National Innovation Council is a government-business-academic forum that was overseeing the country's innovation strategy during the Bachelet government.

The existence of these public-private alliances in Latin America is a positive development compared with the past. Public-private policy alliance councils, even in the most advanced industrialized countries, are always a work in progress, involving trial and error, given that they are a complex human endeavor promoting the interaction of multiple actors with different interests in a democratic setting (Devlin, 2012). The structure and governance of alliance councils are by their natures *sui generis*, as they must accommodate the idiosyncratic nature of each society and the objectives set out; i.e., there are no formulas. Nevertheless, observation of experiences in countries with a longer history of public-private alliances suggests some serious governance problems in Latin America councils that need to be addressed. While space will not allow a comprehensive itemization of problems that can be observed in the region's councils, an illustration would be:[27]

[27] Also see Devlin and Moguillansky (2011) and Devlin (2012).

Table 4

Selected Public-Private Alliances in Latin America

Field/country	Alliance	Type of Alliance	Structure
Brazil			
National	Economic and Social Development Council (CDES) Advisory body to the president on state reform and on medium/long-term issues	Formal, structured	Representatives of workers, businesses, social movements and the government organized in thematic groups. More than 100 council members chosen by the President
Sectoral	National Industrial Development Council (CNDI) Supervises industrial development polices	Formal, structured	23 ministries, 14 representatives of industry and the President of the BNDES
Sectoral	Sectoral and state-level councils and forums for public-private alliance dialogue on the implementation of the PDP	Formal *ad hoc* but in the process of being structured	Sectoral and thematic business associations and representatives of sectoral and thematic public agencies
Chile			
Sectoral	Productive Development Forum – Council for productive development (1994–99)	Formal, structured	Tripartite partnership: Government-unions-business 24 council members chaired by the Minister of Economy
National	Various alliance forums set up at different times on different issues	Formal *ad hoc*	
	National Innovation Council for Competitiveness Defines the innovation strategy and advises the presidency on innovation policies	Formal, structured	A president, 5 ministers, and 11 representatives of business, science, and academia. The alliance operates on different levels: at the executive and grassroots levels, among the leaders of the clusters and through participation in the Regional Productive Development Agencies (ARDP)
Colombia			
National	National Planning Council Consensus building on the National Development Plan	Formal, structured	Composed of representatives of the various civil society groups
National	National Competitiveness Commission Implementation of the strategy for productivity and competitiveness	Formal, structured	Chaired by the President with the participation of businesses, academia and unions, public agencies, private organizations, and regional competitiveness commissions
Dominican Republic			
	National Competitiveness Council	Formal Structured	President, Ministry of Economy, Planning and Desarrollo, 8 representatives from ministries or sectoral associations and 8 private sector individuals.
El Salvador			
National	Economic and Social Council	Formal, structured	24 business associations, 24 representatives of social groups, 5 government representatives
Ecuador			

National Sectoral	The National Council of Production with its Consultative Council Sectoral Councils	Formal, Structured Formal, Structured	The National Council is made up of government and the Consultative Councils has as members Business Associations that comment on government plans. 14 tripartite councils to identify to identify and overcome productive constraints and negotiate wage pacts.
Mexico			
National	Consultations by the Presidency	Formal *ad hoc*	Private sector participation through consultations and negotiations with business associations, unions, other members of civil society.
Panama			
National	National Concertation for Development Preparation of national development strategy	Formal, structured	Council with 58 representatives of business, unions, the Church, social sectors, indigenous groups political parties and the government at the central and local levels
Peru			
National	National Accord	Formal Structured	More tan 40 members made up of political parties, business, labor, farmers, univerisites, churches, regional representatives, government ministers and chaired by the President of the Council of Ministers
	National Competitiveness Council	Formal Structured	President of the Council of Ministers, ministers of state, representatives of business, labor and INDECOPI (NGO that oversees competition issues)>
Uruguay			
National	Sectorial Tripartite Councils	Formal Structured	Sectoral ministries, sectoral business associations, labor of the sector and sometimes a representative of the innovation agency ANNI.

Source: Authors based on official data

- The formation of national level public-private alliances signals a priority initiative. That is why political authorities of the highest level of the central government are normally on them[28]. However, some of the councils in Latin America are not yet embedded in the national political culture; i.e., they can be more councils of government than councils of state, which means that their political relevance and credibility for the participating members and the country often ebbs and flows according to personal interest of the nation's Executive. The National Accord of Peru was launched by the Toledo government where it was active in recommending initiatives for socio-economic development, but fell into disuse in the subsequent government with signs of renewal in 2012 in another government. Likewise, the National Concertation of Panama was initially kept at arms' length at the beginning of two successive governments and later embraced by the Executives due to the political commitment and persistence of its broad civil membership, strong legal footing and eventual realization by the Executive of its political utility for the government. In Chile, the National Innovation Council for Competiveness appears not to have had broad political support as attempts to give it legal status failed in Congress, eroding its legitimacy and making its sustainability vulnerable to changes in government (Devlin and Moguillansky, 2011).
- The civil representativeness of the Council can be in question, which erodes its credibility. This was a problem in Brazil's CNDES ("friends of Lula") and the Dominican Republic's CNC (Moguillansky, 2012). The Secretariat of the Concertation National of Panama is currently reviewing its representatives with the aim of strengthening their representativeness.
- Participation of multinationals with important operations in the country seems to be largely absent. This could be lost opportunities to encourage more linkages with domestic firms and gain an international "antenna" for strategic thinking[29].
- A large number of representatives in the Council's plenary ensures wide circulation of information, but it trades off with the ability to do real dialogue, problem-solving and

[28] The presence of an engaged and committed high level authority like a president, vice president or prime minister has various advantages. It signals political commitment. It attracts the participation of high level representatives of the private sector. The high level authority can also pressure ministries to convert words into deeds, including budget allocations. Since Presidents are usually busy people it is important to have a powerful ministry in charge of follow-up (Devlin, 2012). In Peru the CNC has had leadership from a powerful minister, but not always the engagement of the Executive. This may partly explain why priorities set out in the CNC were not very effectively sorted out and translated into action.

[29] Countries that have caught up by initially relying on FDI have incorporated multinational representation on their councils, directly, or through participating business associations (Devlin and Moguillansky, 2011). Colombia's Private Sector Competitiveness Council, which participates actively in that country's strategy, has representation of multinationals hosted by the country.

consensus building. The more than one hundred members of Brazil's CNDES may present challenges in this regard[30].

- Lack of engagement by the minister of finance can dilute the council's link to the national budget. The ministers of finance in Brazil and Colombia are active in those countries' councils, which is an asset. Brazil has the added heft of the active participation of the BNDES.[31]
- The Councils (including their technical commissions) can be relatively inactive, which erodes credibility and the interest of participation by high level civil representation. Brazil's CNDI apparently had not been meeting (although the Plano Brasil Maior apparently is trying to revive it)[32]. Peru's National Accord has had extended periods of inactivity (with a recent attempt of the current government to revive it). The CNC of the Dominican Republic has been inactive, although its executive arm has been very effective serving as a liaison between government and business (Moguillansky, 2012).
- Major players are not discouraged by the government in their efforts to bypass the council for the tradition of intensive bilateral lobbying. This bypass of course is inevitable if the council does not meet regularly, or is not a credible interlocutor with the government. In Colombia the Executive apparently discourages private conversations with members of the National Competitiveness Commission (Moguillansky, 2012).
- The councils' governance structure and method of dialogue do not serve to overcome distrust, or indifference, between government and business. This has been a problem in Chile. The National Competeviness Council of Peru also appears to have been ineffective in creating sustained real engagement between government and business. In Uruguay the ministries' attention to, and priority for, the tripartite sectoral councils is quite variable.
- Generally the councils do not have well-financed independent and neutral technical secretariats that can facilitate problem-solving deliberations in the national interest and monitoring of the degree to which recommendations or agreements are really translated into policy and a budget. This raises the risk of capture of the government by private interests, or the capture of civil society representatives by the government. The Concertation National of Panama has a financed Secretariat that provides these services and the additional support of UNDP. Peru's resuscitated National Accord recently

[30] Surveys show that the participants' satisfaction with the CNDES was only moderate and some of the major players lost interest (Zebral, 2011).
[31] The Competiveness Council in Peru is now housed in the Ministry of Finance, but as mentioned earlier, financing is largely provided by donors and multilateral agencies
[32] This may explain why many business interests initially did not feel well informed about the PDP (Devlin and Moguillansky, 2011). The tripartite sectoral councils did involve significant private-public interaction.

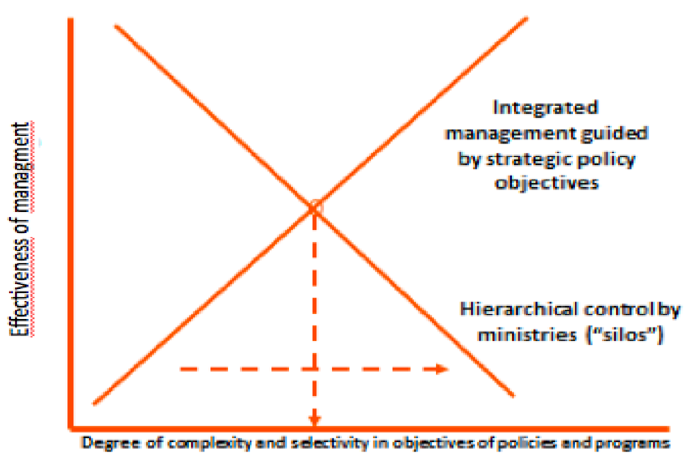
secured financing for a small secretariat in charge of administrative and technical support.

- Transparency in the councils' governance is not always the best.
- The communication between the National Councils discussing the "big picture", which advise the Executive, and the National Competitiveness Councils, is little or non-existent. This lack of articulation can "balkanize" dialogue and erode the credibility and/or political legitimacy of either or both councils, thereby reducing their effectiveness as advisory or technical tools[33].
- National council members, or their counterparts in the regions (whether associations or individuals), can lack the capacities to effectively participate. The regional shortcomings have been a problem in Colombia and Chile. Financing, technical assistance and capacity building can be a remedy for this problem[34].

E. Coordination and Monitoring

Coordination. Effective coordination and monitoring of industrial (or for that matter any) policies are critical for effective implementation. For all governments coordination is always a major challenge. Moreover, as seen in Figure 3, the complexity of coordinated management rises sharply the more ministries/executing agencies must leave their "silos" to address cross-sectoral, regional or interregional policy initiatives.

Figure 3
Coordination of Management of Industrial Policies



Source: Marshall (2009)

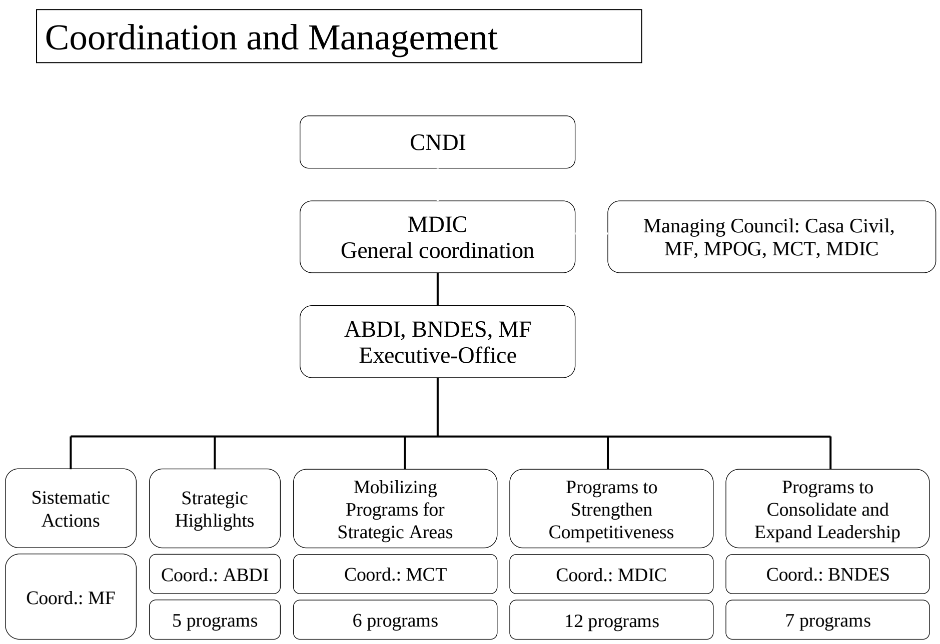
[33] This became a major problem in the Irish Alliance which perhaps contributed to the country's crisis (Devlin and Moguilansky, 2011)
[34] Spain, in order to have effective private sector interlocutors for the government, helped finance the strengthening of business associations (Devlin and Moguillansky, 2011).

Coordination and monitoring within government was another major weakness of the old industrial policy. It continues to be a weak point today in many governments. However, a number of countries have made serious efforts to break the status quo with new ambitious schemes that attempt to improve coordination. Several illustrations are presented here.

In Brazil, Figure 4 outlines the coordination that was set up for the PDP strategy[35]. One virtue is that it was a first attempt to break out of the disconnected "silos" that traditionally plagued program implementation and replace it with a more whole-of-government approach. As can be seen, the Ministry of Development, Industry and Trade was the general coordinator of the programs in the PDP. It also was a member of a managing council in which the Casa Civil of the Presidency is represented, the organ that linked the PDP to other initiatives such as the one in science and technology (this link apparently was quite effective)[36].

Figure 4

COORDINATION OF THE PRODUCTIVE DEVELOPMENT POLICY (PDP)



MF= Ministry of Finance, MPOG=Ministry of Planning, MCT= Ministry of Science and Technology
MDIC=Ministry of Development, Industry and Trade, BNDES= National Development Bank, ABDI=Agency for Industrial Development, CNDI= National Industrial Development Council
Source: Government of Brazil

[35] Interestingly, the cascading of responsibilities is somewhat similar to how Singapore managed its most recent flagship development strategy (Devlin and Moguillansky, 2011).

[36] Personal rapport also matters in this issue and that apparently existed between the teams of the BNDES and the Ministry of Science, Technology and Innovation.

The day-to-day Executive Office importantly had the presence of the major financial arms of government, facilitating their full engagement with the PDP. Meanwhile, assignments were given for the execution of the specific areas of the PDP. The Plan Brasil Maior includes more activities in the areas of technology, services and trade. Adjustments involve direct integration of the Ministry of Science, Technology and Innovation and the Ministry of Management and the Budget[37]. If results are an indicator of the effectiveness of the coordination of the PDP (it is too early to evaluate Plano Brasil Maior), they suggests that it has been quite respectable. Ex- ante performance targets were met in 2008, while a number of shortfalls were registered in subsequent years. However, after 2008 the world economy entered into turmoil and hence results probably were affected by shifts of attention to shorter term economic management issues.

In Colombia, it is the High Council of the Presidency and the Department of Planning that lead the coordination of the execution of the strategy, with the latter assuming an ever greater role. The Department of Planning has a history of competence and internally mirrors the ministerial portfolios. It coordinates the mixed public-private technical committees (the workhorses under the National Competitiveness Council) that enter into the details of policies and their execution. However, in coordination of the transversal initiatives of the National Competiveness Policy there have been some vacuums in sectors and regions. Meanwhile, coordination between the Competitiveness Strategy and World Class Sectors Strategy (coordinated by the Ministry of Commerce, Industry and Tourism) reflects a lack of whole-of-government priorities and weak communication. With a view to addressing some of these problems the 2010-2014 National Plan aims to have all branches of public agencies supporting enterprise development put under the umbrella of the Regional Competitiveness Councils instead of disperse Ministries. While in theory this could improve coordination, the scheme will have to address capacity building of the weaker regional councils and more transparency in their criteria for the selection of representatives and the use of funding (Moguillansky, 2012).

In the Dominican Republic, notwithstanding the dormant nature of the National Competiveness Council, the Executive Office of the Council has acted as an effective, proactive *de facto* coordinator between government agencies and businesses, with a view to enterprise and cluster development under the National Plan for Competitiveness for which it also was a catalyst[38]. Meanwhile, in Uruguay, the central government formed a Cabinet-level Productive Committee, led by the Ministry of Industry, that meets every 15 days to coordinate the

[37] Also linked to the coordination network are public-private councils that oversee implementation of the sectoral and systemic actions, respectively, of the Plan.
[38] The role of the Executive Office of the CNC seems to mirror the story of Czech Invest, where a dynamic director and staff absorbed a de facto role in coordinating investment attraction and local enterprise development. (Devlin and Moguillansky, 2011).

implementation of industrial policies by the sectoral ministries. However, within the Cabinet Committee there is not always consensus, which makes the task of executing agencies more difficult.

Ecuador did a wholesale diagnosis and reform of its central government to strengthen coordination of the public sector's delivery of the objectives in the country's national plan (Apaza, 2011). To eliminate identified duplication and overlap, the competencies of ministries and their decentralized agencies have been clarified. Coordination of industrial policy is the responsibility of the Coordinating Ministry of Production, Employment and Competitiveness, which participates in the National Council of Production. There is, however, an institutional weakness in the implementation capacity of the ministries and agencies subordinated to the coordinating minister.

Coordination has traditionally been a problem in Chile. Perhaps reflecting weaknesses in the National Innovation Council for Competitiveness, it continued to be a problem even in this new institutional arrangement. However, the government agencies began to take matters into their own hands. For example, ProChile, located in the Ministry of Foreign Affairs, and CORFO, which supported industrial promotion and innovation, traditionally worked in silos. During the government of President Bachelet, given that the innovation strategy was designed to innovate for export, the heads of the two agencies took the initiative to join forces in a common program (Devlin and Moguillansky, 2011).

Monitoring. As for monitoring implementation, there are some advances that can be identified. An innovative formal system is in place in Brazil. In Colombia, the Private Sector Competitiveness Council—made up of signature Colombian firms and selected hosted multinationals[39]-- has effectively assumed this responsibility. In Panama it is the Secretariat of the National Concertation that monitors; a review of implementation of commitments by the government is currently underway. Meanwhile, Mexico has detailed annual reports of the progress in implementing the goals set out in its national plan.

IV. What's Old about the New Regionalism?

We have observed some illustrations of advances in the application of industrial policies in Latin America. However, there also are some lingering bad habits that are more than just exceptions to the norm in the region. Since these weaknesses have been around for a long time, and hence are not new, we can be brief.

[39] Also participating in associate status are representatives of several universities and business associations.

A. Continuity between Governments

Strategies have to be continuously monitored, adjusted, refined and abandoned when they clearly are not working. However, Latin American public policy has traditionally suffered from what Machinea (2005) has termed a “refounding syndrome”: each new government negates the policy and programs of the previous government and introduces a new program without evaluating what of its predecessor worked and what did not. In the area of macroeconomics this tradition may have ended as successive governments in the region seem now to share a common bond of preoccupation about the primacy of macroeconomic balances regardless of political party or ideology. Drawing on our illustrations, progress has also been seen industrial policy too. The switch from the Lula to Rousseff governments brought a new plan, but it built on the former PDP. Meanwhile, in Colombia, the switch from the Uribe to Santos governments witnessed new initiatives, but these too built on the earlier effort. Relative continuity has been maintained in Uruguay as well. This perhaps has been aided by the fact that the Presidents came from the same party[40].

In Panama, as mentioned, the current government initially did not show interest in the National Concertation that emerged during the previous government. However, that changed, perhaps because the National Concertation has strong political roots and it named a new Secretary General respected by the Executive of the country. In the case of Chile, the current government suspended the national innovation strategy for competitiveness developed over the life of the two previous governments of the now opposition “Concertación”. This could be a setback for industrial policy in that country. The planning of the innovation initiative had respectable domestic and international support and the pieces were put in place for implementation. A major dismantling of the programs along with related technical personnel and the dedicated forums behind the strategy would erase the new capabilities that the country was gaining in managing a sorely needed innovation strategy. Its fate may have been sealed by the fact that the initiative appears to have been more of an “initiative of government than of state” (a sufficient national consensus was not built around it). Moreover, the country faced the inertia of “path dependency” both in terms of a long contemporary “custodial-like” public management of industrial development and a legacy of relatively marked ideological differences between the two coalitions of political parties about the role of government in the economy[41].

[40] As Ocampo (2012) points out, while having essentially the same objectives, prior to the mid- 2000 successive presidents abandoned competitiveness programs of their predecessors.

[41] A very similar situation explains the demise of the Growth and Innovation Board of New Zealand (Devlin and Moguillansky, 2011).

B. Government Capabilities

The Missing Merit-based Professional and Technically Capable Civil Service. Most all Latin America countries have civil service laws on the books. But few have implemented and updated them (Grindle, 2010). Beyond central banks and ministries of foreign affairs, most countries in the region still have *ad-hoc* personnel arrangements that do not come close to the criteria of a professional and technocratic civil service (See Tables 5 and 6 and Figure 6). Lack of systems geared to merit-based recruitment of the "best and the brightest" for career streams, coupled with poor pay and esteem for public service, means that low and mid-level posts often have staff of middling technical caliber which makes needed professional delegation difficult. Meanwhile, more senior management positions are filled by political appointments or consultants with special income arrangements and are subject to high turnover between governments, thereby eroding institutional memories[42]. This situation is also an environment fertile for corruption of different types. Ministries and executing agencies charged with industrial policies are often the ones most plagued by this problem.

This general characteristic of a lack of a well-motivated, stable, technically competent and accountable civil service at all the corresponding levels of government—and especially at those levels charged with productive transformation -- is the Achilles' heel of industrial policy in Latin America. Indeed, no countries have successfully caught-up with rich countries without a competent professional and technocratic civil service. Moreover, if the new industrial policy requires public-private alliances, the weak condition of the civil service structure will discourage businesses and others in civil society leaders to ally themselves with government, unless the can see it as a channel for special favors.

Hence, in our view building and strengthening a competent professional civil service in Latin America is of the urgency of a state emergency and should be an endogenously-driven priority component of industrial policies.

There are two related issues that also are legacies of the past.

Structure of Ministries and Executing Agencies. Many ministries are still structured like they were in the bygone era of ISI and need to have their internal structure and processes evaluated and updated to the realities of globalization and the new industrial policies. Moreover, executing agencies of ministries—the workhorse of industrial policies-- are typically an

[42] The Commonwealth tradition is interesting. In this type of civil service a high ranking civil service manager (e.g., a secretary general) is just under the minister and his/her position is not affected by changes in governments/ministers, which provides institutional memory to management.

integrated part of the ministerial bureaucracy. Consideration could be given to making these agencies statutory bodies under the ministries with public-private boards of directors. This would provide for delegation of authority and the flexibility in personnel and program management that are needed to face the fast moving challenges of globalization and international competitiveness.

Tax Pressure. An effective government needs revenue to finance a professional civil service and incentive programs for productive transformation. In Latin America the countries with the most need for structural change exhibit central governments applying the lowest tax pressure, typically in the low teens.

Table 5

A Definition of a Professional Civil Service

"Civil service systems are those in which the preponderance of non-elected public sector jobs are filled through a process of credentialing based on education, examination or some other test of merit; in which a career ladder exists and is accessed through regularized demonstration of credentials of education, examination, tenure in office or other form of assessing merit; in which tenure is secure barring malfeasance in office; and in which movement in and out (through retirement, for example) is regulated and compensated. In such a system, the official performs duties for the state or the service, not for the patron or party. The rules of the game in the system are formal and objectified through rules and procedures."

Source: Grindle (2010)

Figure 6

Characteristics of Professional Civil Service Personnel Management

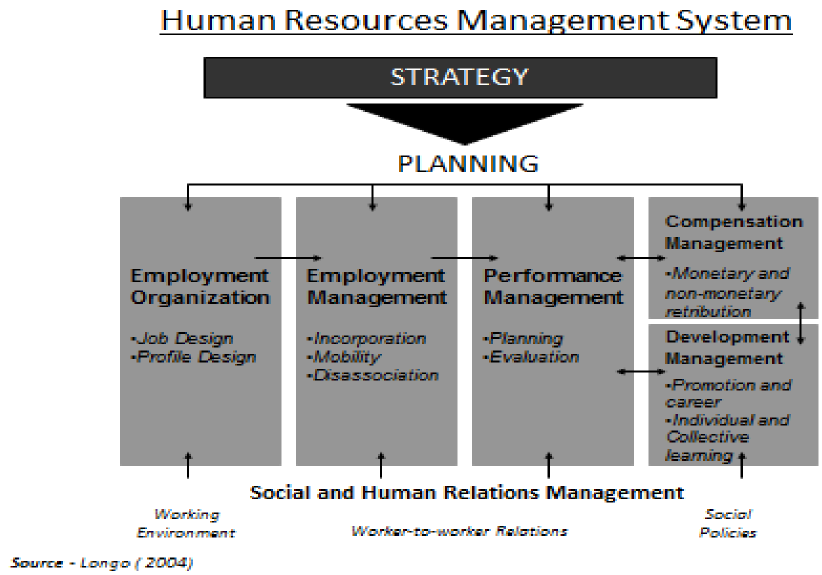


Table 6

Singapore Minister on the Salaries for Civil Servants

"It is necessary to avoid a gap between the wages of public and private sectors in order to recruit qualified personnel who will remain in the public sector; otherwise, Singapore would lose a key advantage over other countries: the existence of a public administration that is honest, competent and effective."

Source: Straits Times (3 march 2007)

C. Evaluation of Impacts

"Does it work? Let's try it and if it does work, fine, let's continue it. If it doesn't work, toss it out, try another one": the ex-Prime Minister of Singapore commenting on the government's support programs for productive transformation (Mydans and Arnold, 2007).

One of the dictums of the new industrial policies is knowing when to quit; learning how to "pick losers" and eliminate/ phase them out[43]. Evaluation of the impact and effectiveness of the program *vis- a- vis* the objectives set out is a critical component of modern industrial policy. Rigorous assessment based on appropriate methodologies and empirical data gathering can be

[43] This is something the Asian Tigers did even in the "old" days.

challenging and bear significant cost. But it has to be done and countries like Finland have led the way (Devlin and Moguillansky, 2011)[44].

The advantages of rigorous evaluation are many. Most obviously, it helps to evaluate value for the money spent on the program, identifying needed adjustments or the wisdom of termination. Just as importantly, it can justify to taxpayers the public outlay of resources for the program—and highlight its contribution to growth and an eventual fiscal return. Or evaluation can provide ammunition to terminate in the face of lobbying by beneficiaries of the incentive. In Latin America the systematic evaluation of the impacts of IP programs *vis-a-vis* objectives set out is a new frontier that must be conquered[45].

D. Weak Regional/Local Counterparts

This was a problem in the old regionalism too, but in today's environment, where production and intellectual networks are ever more important for competitiveness and learning, the low capacity of actors not on center stage nationally is a handicap for effective industrial policies.

E. Corruption

When talking about the new industrial policies in Latin America, the issue of corruption always rears its head. We have not attempted to explore this important issue, but one thing is for sure: warnings of corruption in Latin America existed in the era of the old industrial policy and in the era of the Washington Consensus too. Moreover, even countries that have successfully applied industrial policies for catch-up have not been a community of saints (Khan, 2006). So while corruption is for many reasons an important issue for governance, it should not detract from the arguments for doing effective industrial policies.

V. Addendum: Two Slightly Existential Issues

One issue that requires more research and exploration is Ricardo Hausmann's (2008) "high bandwidth" dilemma, which in now gaining more attention in light of growing interest in public-private collaboration. Hausmann has been one of the innovators in the thinking about the new industrial policy. In terms of his high bandwidth argument, it points out that the market is complex. Hence, just as decentralized decision making, as found in the "invisible hand" of Adam Smith's free market, is more efficient than central planning, decentralized self-organizing bodies in society are the best interlocutors for government in its search of information for the provision of public goods to service industrial policy. Thus Hausmann proposes that an "open architecture" of public-private collaboration is better than forums that are organized by governments around predetermined groups.

[44] Finland has shown that well designed and implemented subsidies for innovation actually generate a positive fiscal return for the government (Devlin and Moguillansky, 2011). Brazil has broad macro-like target indicators, but no program specific impact evaluations which are a critical tool for evaluating effectiveness (Almeida and Ross Schneider, 2012).

[45] Apaza (2011) reports that Ecuador's planning ministry is in the process of developing a methodology for evaluations of impact.

He and others, pointing to the U.S. experience, toy with the idea that lobbying—while recognizing warts that make it suboptimal—could be a second best decentralized approach to elicit information from the private sector for the provision of public goods. This seems to lead to a conclusion that Latin America should explore strengthening institutionally- based lobbying to support its industrial policies. If we are interpreting this correctly, we find the idea unpalatable. Many think that the drivers of U.S.'s competitive success are waning as its congress and executive branch are bogged down in discrete initiatives, but not an overall strategic policy approach to improved competitiveness.[46] Moreover, it is common to hear that the malaise of the U.S. economy to due to the fact that the country's congress has been literally bought out by special interests. In any event, lobbying seems to be an odd channel for formulation of public interest-based industrial policy given its lack of transparency, information asymmetries, the leverage of money and a significant number of less than engaged voters[47].

On these grounds—notwithstanding lobbying which will always go on-- we think that there is a strong argument for well-governed public-private forums whether of the aforementioned formal structured or *ad-hoc* types. They provide for transparency, formal or tacit rules of the game, contestable dialogues/problem-solving and can provide mechanisms for technical support which can balance capacities of the players, among other things. The argument for "open architecture" in terms of who participates makes sense particularly for mid-level strategies (Figure 2) that often require coordination of cross-sectoral interests (e.g., innovation) and/or where these interests have a degree of practice in self-organization/cooperation[48]. Nevertheless, governments will have to be more proactive in organizing representation for umbrella forums setting out national public interest-related priorities and providing cohesion for medium-long term development strategies that guide and legitimize industrial policies at the different levels of Figure 2[49]; and for forums aiming to develop sectors or activities that do not yet exist, or where self-organizing stakeholders are not naturally acting in the public interest.

Finally, in terms of the bandwidth argument, true, economies are complex. However, in the more backward Latin American countries that are lagging in structural transformation the complexity at the sectoral level should not be an overwhelming puzzle to significantly unravel and hence get started with applying industrial policies. It would require the set-up of well-governed, problem-solving public-private collaboration and progressive capacity building of the civil service. In many of these economies the obstacles to adding value to "maquila" and natural resources are often quite basic and identifiable (even with rough and ready methodologies), especially if there is technical assistance. So the real dilemma may be a different one: (i) how to achieve the creation and institutional strengthening of professional and technically- capable public bureaucracies and (ii) the formation of well-governed mechanisms of public-private

[46] For example Porter (2008).
[47] Articles in the Washington Post of May 13 on lobbying—which is regulated-- in the U.S. oil and gas as well as beef industries are helpful reminders and give reason for pause.
[48] Finland's Research and Innovation Council has recently decided that it membership in the future will be less based on social representation and more based on expertise (Devlin (2012).
[49] One of the shortcomings in Australia is that its innovation strategy may be too decentralized and lacks an overarching coherence (Cutler, 2012).

collaboration and problem solving that are rooted in political culture and have the serious engagement of the Executive in the spirit of “embedded autonomy”.

The second slightly existential issue is public-private collaboration and engagement of the big business groups that operate in Latin American countries. Ross Schneider (2012) has some relevant observations in this regard. They are very important: e.g., in Chile the 20 largest firms account for half of GDP. Their upside is that they hire the best talent, being diversified, family controlled and hierarchical they are agile in the allocation of resources and can take a medium-long term perspective. But they have serious downsides in that they often exercise oligopolistic power; they leverage political power bilaterally and personally; they grow through acquisition and invest little in R&D. We would also add that their allegiance and linkages to the domestic market are often underexploited.

A common reaction is that if government attempts to engage these powerful groups it will be captured. We think there is no alternative but to address the potential of this national resource. Determined political leadership, coupled with engagement of these business groups in national public-private alliances to support industrial policies that benefit their competitive self-interest to move up the world’s productive hierarchy, would seem to be a way to exploit the upside characteristics of their operations[50]. Ross Schneider suggests that industrial policies be targeted specifically to the firm, which makes sense given the personality-based nature of management. However, this will require that public sector find ways for engagement to be practiced with the “embedded autonomy” that is needed to protect the public interest.

VI. Conclusions

After a hiatus during the era of the Washington Consensus, proactive State and strategic industrial policy initiatives aiming to promote productive transformation and accelerated growth “are back” in Latin America. However, in important ways the industrial policies of today have new characteristics compared to the old industrial policies of 1950-1980—which generated advances but had serious and costly vulnerabilities too.

The region has consolidated a culture of macroeconomic stability and engagement with a globalizing world economy. Policy is now formed in a democratic setting. However, the structural weaknesses exhibited in the economies of the region even after two decades of reform, coupled with the challenges of globalization and an unexceptional growth performances compared to other developing regions, have created demands for more active State support of productive transformation. The types of structural weaknesses exhibited in Latin America are exactly the ones that industrial policy is best able to address. Moreover, mostly all countries that have achieved sustained economic catch-up have been practitioners of industrial policies.

[50] These firms could be motivated by the fact of “doing more of the same” in a competitive world can a losing strategy.

What's new in the new industrial policies compared to the old? While we have not been able to do a "10 digit" survey of the nature of industrial policies in all the countries of the region, looking at a selected number of different types of countries suggests the following stylized facts:

- Industrial policies are being aimed at much more open economies now led by the private sector which faces international competition in traded goods and services. Moreover, the industrial policies are mostly geared to improving existing international competitiveness, while the promotion of new activities is more limited and generally does not attempt heroic leaps forward that totally ignore comparative advantage or realistic possibilities for building new upgraded knowledge and capacities. Thus the deployment of the new industrial policies generally reflects the prudence of attempting to "walk before running" in terms of industrial promotion.
- One observes the gradual emergence of innovation as a priority in industrial policies—an area where Latin America has seriously lagged. This means that the region is following the lead of successful catch-up developing countries which began to place strategic emphasis on innovation in the 1990s.
- Fiscal management is better and strategies/plans have closer links to budgets; hence, words in national plans/strategies are more likely to translate into deeds.
- There is a much heightened preoccupation about mechanisms for coordinating government action and monitoring outputs of planned industrial policies.
- Public-private policy alliance councils have emerged in many countries to guide governments in the direction, content and implementation of industrial polices. This is important since modern industrial policy recognizes that for market economies in an era of globalization all views are now, more than ever, very partial. Hence, industrial policy cannot be designed "top-down". Rather it is really a question of finding an effective social process and corresponding institutional arrangement of public-private collaboration that problem solves and elicits information for the effective provision of public goods supporting private sector experimentation, learning and upgrading without capture of the State by special interests.

While these advances are encouraging and major, one also sees serious limitations, some of which are hangovers from the past. These must be addressed if industrial policies are to be done right and progressively raise their ambition.

- Public-private policy alliance councils are a welcome new development in the region. However, they still must be viewed as a work in progress. All the councils exhibit flaws in their structure and the tangible and intangible dimensions of governance. These limit their effectiveness as a social process for the search of information and consensus to support the deployment of strategies and support programs for productive transformation.

- Sometimes there is less than enthusiastic private sector participation in public-private alliances along with a preference for bilateral lobbying. This may sometimes be attributed to the above-mentioned flaws in the governance of the alliances, which sometimes include less than sincere participation of the leaders of government.

- While there are signs of improvement, the continuity of programs over the political cycles can still be breached by the old “re-founding syndrome” in the region, whereby a new government unilaterally aborts the program of a predecessor without serious evaluation of what worked and what did not.

- An Achilles’ heel of industrial policies in Latin America is the lack of a merit-based and technically capable professional civil service in most countries of the region. No country with a capitalist economy has managed to achieve economic catch-up without a competent public bureaucracy to partner with the private sector. Hence this weakness in Latin America should be treated as “national emergency” that makes the building, or strengthening, of a professional technocratic civil service an endogenous priority component of industrial policies. Only with a stronger civil service (*cum* political leadership) will the region be able to raise the ambition of IP to accelerate scaling up for the diversification and upgrading of economic activities that will allow it to eventually reach the higher echelons of the world’s productive hierarchy.

- Competent states need finance and hence adequate tax pressure, something which many countries in the region still lack. Moreover, the structure and processes in ministries and their executing agencies—often not much different that the era of import substitution industrialization-- need to be reformed to respond better to the private sectors’ challenges of a globalized world economy.

- While the countries are advancing in their ambition for coordination and monitoring, they have not yet entered into the vital terrain of evaluation of the impact of specific industrial policy support programs vis-a-vis their intended objectives. This is a vital gap in efficient industrial policy because one of the tenants of modern industrial policy is to know how to identify losers and abandon them. In addition, evaluation supports another tenant: close public collaboration with the private sector without capture of the State by special interests. It is also necessary to justify the cost of government interventions to the taxpayer.

- Regional counterparts of national public-private alliances are often weak in finance, technical capacities and interest, compounding communication bottlenecks in the network of alliances in the nation.

We also observe that exploration of a decentralized “open architecture” for public-private alliances can make sense for certain mid-level strategies under the right conditions. However, proposals that lobbying should be a major vehicle to achieve this is unpalatable due to, *inter alia*, the lack of transparency, the leverage of money, asymmetric capacities of players and the risks of weak mediation of private interest by the public interest. We also agree with some analysts that argue that industrial policy must give special focalized and customized attention to exploiting the potential upside of large domestic business groups for development and upgrading of the domestic economies at large.

In sum, industrial policies have returned to Latin America and their character is quite different from the much maligned (not totally fairly) policies of the ISI era. But the secret of successful industrial policies still depends on doing it right. Advances in this regard are significant, but there is considerable room yet for improvement.

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