WANT TO COMPETE WITH CHINA?
LATIN AMERICAN GOVERNMENTS NEED TO ADOPT TARGETED,
PRO-GROWTH INDUSTRIAL POLICIES.

LATIN AMERICA'S MIDDLE INCOME TRAP

BY EVA PAUS
Latin America’s recent economic success carries with it the risk of complacency among the region’s policymakers. Economic growth during 2003-2007 was the highest in the region since the adoption of neoliberal policies in the early 1980s. Most of South America seems to be well on the road to recovery from the global financial crisis, while countries like Brazil appear bound for global economic status. But when the region’s economies are examined within the larger global context, the urgent need for action becomes clear.

Many Latin American countries today are caught in a middle-income trap. On the one hand, they can no longer compete with low-wage countries in standardized products. On the other, they cannot compete with countries with greater capabilities in more technology-intensive goods and services. The reason: many governments have never developed the policies and institutional environment to make the leap to high-tech or industrial economic development—what is often referred to as industrial policy.

In the last 60 years, Latin America’s economic strategy has swung—broadly—from import substitution industrialization (ISI) to neoliberalism. Under ISI, governments understood that economic activities differ in their potential for creating sustained growth, and that they need to provide an incentive structure that allows private producers to accumulate the technological capabilities required to compete in activities with increasing returns. Governments also understood they had to adopt policies to support and coordinate the development of complementary social capabilities.

But overconfidence in the abilities of governments as well as the lack of built-in performance requirements for protected industries resulted in persistent and widespread inefficiencies and widely divergent productivity within and across sectors of the region’s economies. In the neoliberal period, governments substituted competitiveness policies for industrial policies, assuming that market forces would generate sustained growth.

The benefits of trade liberalization, foreign investment and good governance are not automatic. If local industries and producers have not reached a certain threshold in their own capacity, then they will not be able to take advantage of the opportunities offered by international markets and foreign investment. This is where government policy comes in. Well-structured, transparent and predictable interactions between government institutions and private-sector organizations provide the institutional architecture to implement successful, pro-growth industrial policies.
Latin America's Middle Income Trap  
EVA PAUS

FALLING SHORT IN GLOBAL COMPARISONS

The accumulation of technological capabilities is at the heart of the development process. Technological capabilities refer to the resources and organizational abilities needed to generate and manage technological change. In a changing national and global context, accumulating those capabilities is the key to sustained productivity growth and high-end economic development.

The results of 35 years of neoliberal policies in Latin America speak volumes about the current state of technological capabilities in the region. Latin American economies grew at an average annual rate of 2.7 percent between 1980 and 2008. That is half the rate of growth during the import-substitution period and substantially lower than in any other developing country group. Productivity growth has stagnated even worse. Labor productivity grew at an annual rate of 0.2 percent compared to 2.5 percent during the prior period. To be sure, economic growth for most of the 2000s was considerably higher (though still lower than in other developing country groups). But that was primarily the result of the commodity price boom and remittances from Latin Americans living in the United States.

The set of reforms adopted in the late 1980s and early 1990s, including the lowering of tariff barriers, reduction of public subsidies, elimination of price controls, and freeing of interest rates (the so-called Washington Consensus), led to the de-industrialization of Latin American economies. The share of manufacturing as a percentage of GDP declined from 27 percent in 1980 to 17.9 percent in 2009, which puts it roughly at the same level as the Eurozone (18.1 percent), and substantially below developing East Asia and Pacific (31.4 percent). South American countries reverted to comparative advantages in natural resources with a few new ones like natural gas and soybeans added to the old ones like copper and iron ore. Central American countries, and to some extent Mexico, developed specializations in low-skill, labor-intensive, assembly-based production, facilitated by privileged access to the U.S. market through special provisions of the U.S. tariff schedule and broad tariff-free access through the Caribbean Basin Initiative and, in the case of Mexico, the North American Free Trade Agreement (NAFTA).

At the same time, other developing countries performed much better over the last 35 years. Above all, China—both in terms of economic growth and the development of comparative advantages in more technology-intensive activities. With an investment ratio double that of Latin America and a strategy of controlled market liberalization, deliberate expansion of technological capabilities, and strategic incorporation of foreign investors, China has become competitive in both technology-intensive and labor-intensive products. Given the difference in technological capabilities between China and Latin America, the region's bilateral trade deficit with China skyrocketed from $863 million in 2000 to $32 billion in 2009. Only Brazil, Chile and Peru had a significant trade surplus with China in 2009, based on their exports of iron ore, copper and soybeans.

INDUSTRIAL POLICIES UNDER IMPORT SUBSTITUTION: ALL CARROTS, NO STICKS

The industrial policies of the ISI period have been maligned by the proponents of neoliberalism. But it is important to distinguish the economic and development logic of the strategy from the detrimental ways some of the policies were carried out. Industrial policies under ISI were based on the acceptance of three central premises: (1) what a country exports matters for productivity and economic growth; (2) technological learning takes time and is cumulative; and (3) the accumulation of broad-based technological capabilities requires proactive government policies and the development of human resources, particularly through education.

Under ISI, upgrading production meant creating policies and an environment that would foster industrial activities. Industrial production promises longer-term development benefits than natural resource extraction and primary production. It offers greater potential for technological learning and spillover effects into other areas of the economy for increasing returns and higher value-added production. And manufactured products enjoy higher income elasticities of demand in international markets.
Tariffs and non-tariff barriers were expected to provide the space needed for local producers to learn by doing and to develop the needed capabilities to become internationally competitive. Governments adopted policies that supported the development of capacities across different sectors (horizontal policies) as well as policies that channeled resources to specific sectors that were thought to have large potential spillover effects (vertical policies).

At the same time, government investment in human capital—in higher education and vocational training—increased considerably, and there were incipient efforts to promote science and technology. Development banks provided long-term financing for local investors. And to ensure that foreign investment would generate backward linkages and spillovers in technology, larger countries like Brazil and Mexico adopted technology transfer requirements and stipulated that foreign investors had to buy a certain percentage of inputs domestically (domestic content requirements).

It is well known how industrial policies under ISI went away in Latin America. The Asian Tiger governments combined public support to companies with performance requirements, which often meant that firms had to export a growing share of their output during the learning process. Latin American governments provided only the carrots without the sticks. They did not use disciplining mechanisms to ensure that firms would turn public support to help them learn to become internationally competitive. The public coddling created widespread inefficiencies.

Some East Asian governments formed deliberative committees to bring companies together with public officials to explore possible new comparative advantages. In Latin America, by contrast, there was little consultation between governments and the private sector. The lack of serious coordination produced many projects with no foreseeable comparative advantage. At the same time, though, the state initiated the production of strategic intermediate goods (e.g., steel in Brazil) that the private sector would have avoided given the large initial capital layouts and long gestation periods.

INDUSTRIAL POLICIES IN THE NEOLIBERAL ERA: THROWING THE BABY OUT WITH THE BATHWATER

When governments in the region began market liberalization in the 1980s, they concentrated on tackling inefficiency in the private and public sectors. Trade liberalization was meant to expose domestic companies to international market competition and, by doing so, force them to become efficient. Privatization and a general rollback of government activities, it was believed, would eliminate rent-seeking and unleash the productive potential of the private sector. Foreign investment was expected to generate technological spillovers to domestic companies, while governments’ productive role would focus on countering market failures and ensuring the smooth functioning of markets.

But where ISI had provided carrots without sticks, neoliberalism provided sticks without carrots. The strategy shifted from learning-by-doing to learning-by-trading. Markets on their own, though, do not create new comparative advantages in knowledge-intensive industries. And small producers may need technical, financial, or informational support to become competitive. Domestic companies need to be given the incentives and time to develop and accumulate the necessary technological capabilities, and human capital and infrastructure need to be developed in parallel.

The industrial policies that were established at the time tended to promote nontraditional exports through fiscal incentives (e.g., drawback schemes, temporary admission schemes, and export processing zones) and through credit schemes (e.g., loans for working capital, export credit, buyers’ credit, and finance for marketing). Since the support measures were tied to exports, they incorporated the conditionalities that had been missing under import substitution.

Competitiveness policies focused more broadly on strengthening the working of markets,
from establishing new regulatory regimes (e.g., for the utilities or financial sectors that had been privatized) to improving intellectual property regimes. And many countries in the region pursued free-trade agreements and investment agreements, particularly with the U.S., to lock in market access and guarantee stable rules for foreign investors. Mexico signed over 25 trade and investment agreements between 1995 and 2009.

The companies that thrived under the new liberalized market conditions were generally foreign companies—often attracted by the privatization of state-owned enterprises and targeted incentives—a small number of large domestic companies, and a limited number of medium-sized and small domestic companies. A significant number of successful, large domestic exporters benefited from state programs during the ISI period. In Brazil, semi-processed commodities exporters received long-term financial support from the Banco Nacional de Desarrollo Económico e Social (BNDES); Chilean firms received extensive technical support from the Corporación de Fomento de la Producción de Chile (CORFO) for the development of the wine industry; and Central American exporters benefited from the protection provided by the Central American Common Market.

But the vast majority of companies were not in a position to turn market access into competitiveness. ISI had generated large variations in productivity and capabilities across enterprises of different sizes. Over 90 percent of Latin American companies are micro, small and medium-sized companies, which account for nearly two-thirds of employment but less than 10 percent of exports. Focused support policies are needed for firms with low capability and productivity before they can take advantage of export promotion policies and market access.

Similarly, technological spillovers from foreign investment were often limited because domestic companies did not have the necessary absorptive capacity—the technology gap was too large; they did not have access to credit to upgrade production facilities; or domestic producers considered the investment risk too high. In a number of countries where transnational corporations had been producing before market liberalization, once trade opened up they displaced local firms and de-linked from local suppliers. In Mexico, for example, when local content requirements were abolished, local producers could not compete, and no coherent set of support policies was in place to bring them up to the needed level of competitiveness.

Central American countries and Mexico are now paying the price for the lack of focused attention on capability accumulation under neoliberalism. Export success based principally on market access and lower wages is no longer viable. Declining clothing exports over the past few years are a case in point. The basis for global competitiveness in the field is moving toward the ability to provide the “full package” all in one place: the purchase of inputs, cutting and assembly of cloth, attaching of accessories, finishing, packaging, and shipping. In contrast, Central American and Mexican clothing sectors have remained in the “cut and assemble” business.

**A FEW EFFORTS, BUT NO STRATEGY**

While the overall focus under neoliberalism was on general market liberalization, many governments in the region did not completely abandon a sectoral focus. The most prominent example is the automobile sector in Mexico and Brazil. In both cases, domestic content requirements remained in place for a while to eventually be replaced by regional content requirements. For Mexico, when NAFTA went into effect in 1994, domestic content requirements were still 35 percent for automobiles (20 percent for parts), but they were phased out by 2006. Regional content requirements, on the other hand, increased, from an original 50 percent to 62.5 percent in 2004, where they still are today.

To foster competitiveness at national or sectoral levels, governments in the region established a variety of policy councils that brought together actors from the private sector, government institutions and sometimes the academic research sector. Some councils had very broad agendas, such as productive development and competitiveness councils. Others had a more narrow, targeted agenda, often at the sectoral, regional or even local level. Their success varied considerably, as Ben Ross Schneider captured in a subtitle of a 2010 Inter-American Development Bank Working Paper: “Cheap Talk, Expensive Exchanges, or Collaborative Learning?”

But sectoral policies and widespread government-business councils often did not achieve the hoped-for results. Lack of continuity from one administration to the next, lack of coordination, lack of transparency, lack of funding, and lack of clarity about the overall goals were major obstacles.

In Colombia, for example, successive governments kept changing both the process and structure of competitiveness policies. The Samper administration (1994–1998) established a National Council for Competitiveness. The
Fastrana administration (1998–2003) established 10 cross-industry groups to match the 10 competitiveness factors established by the World Economic Forum. The Uribe administration (2002–2010) added a parallel process called the Domestic Agenda, which was to complement the negotiation of a free-trade agreement with the United States. A 2006 evaluation of competitiveness policies in Colombia criticized them as a duplication of efforts, with excessive informal links with the private sector, weak transparency and accountability, and inadequate assessment.3

Across the region, there were frequent efforts to help local firms develop technological capacities, but these often fell victim to a lack of coordination. In Costa Rica in the mid-1990s, for example, a number of nongovernmental organizations tried, independently, to set up their own programs for strengthening technological capabilities in the manufacturing sector. But the programs ended up competing with one another and never became an overall strategy. As a result, they were short-lived and ineffective.

**TOWARD A MORE GROWTH-FRIENDLY INDUSTRIAL POLICY**

During the 2000s, it became increasingly obvious that Latin America was not keeping up with the technological capabilities needed to compete successfully in the global economy. Between 1996 and 2006, the R&D ratio (research and development expenditures as a share of GDP) had changed little in most Latin American countries. The average for Latin America was 0.66 percent in 2006, considerably below the average of 1 percent for all middle-income countries and only half of the average for the developing countries of East Asia and the Pacific. China, on the other hand, doubled its share of R&D in GDP from 0.57 percent to 1.41 percent over the same period, an unprecedented feat among latecomers in the development process.

In Latin America, Chile and Brazil had the highest R&D ratios, 0.67 percent and 1.02 percent, respectively, in 2006. Competitividad (Competitiveness Innovation Fund, or FIC) under CORFO comes from the mining royalty introduced in 2005, which imposed a 5 percent surcharge on copper profits. As a result, FIC funds increased from 31.7 million pesos ($159.8 million) in 2006 to 78.4 million pesos ($350.2 million) in 2008. Overall spending on public programs in science and technology went from $287.0 million to $461.7 million. This is a great step in the right direction, though a number of Chilean economists argue the need is much greater. [See Figure 1 at www.americasquarterly.org/paus] CORFO has also been active in promoting collaborations in R&D between the private sectors and universities. These efforts are supported by the research and development tax credit introduced in 2008, which offers firms a full tax deduction for R&D expenditures that arise from joint projects with research centers certified by CORFO.10

In contrast to most Latin American countries, where targeted industrial policies were strong under ISI, disappeared under neoliberalism and are now making a tentative comeback, Brazil never abandoned industrial policies. The policy was based on the conviction that public financing for long-term investment in targeted sectors is critical to the advancement of technological capabilities. In 2009, BNDES disbursed $68.8 billion; 46 percent of the loans went to industry and 39 percent to infrastructure.9

In Brazil in the 1990s, technology funds at the sectoral level were aimed at privatized sectors, electricity, telecommunications, defense, aeronautics, and oil and gas. At the end of 2003, guidelines established for the new

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*These numbers are up from 0.53 percent and 0.72 percent in 1996. The increases reflect the countries' very explicit and targeted policies to promote innovation activities. In Chile, the administration of then-President Michelle Bachelet created a National Innovation Council in 2006 focused on horizontal policies to address market failures (e.g., the advancement of a venture capital market) and vertical policies aimed at selected activities, primarily in mining, agriculture and business services. A large part of the funding for the newly established Fondo de Innovación para la Competitividad (Competitiveness Innovation Fund, or FIC) under CORFO comes from the mining royalty introduced in 2005, which imposed a 5 percent surcharge on copper profits. As a result, FIC funds increased from 31.7 million pesos ($159.8 million) in 2006 to 78.4 million pesos ($350.2 million) in 2008. Overall spending on public programs in science and technology went from $287.0 million to $461.7 million. This is a great step in the right direction, though a number of Chilean economists argue the need is much greater. [See Figure 1 at www.americasquarterly.org/paus] CORFO has also been active in promoting collaborations in R&D between the private sectors and universities. These efforts are supported by the research and development tax credit introduced in 2008, which offers firms a full tax deduction for R&D expenditures that arise from joint projects with research centers certified by CORFO.9

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**NEW INDUSTRIAL POLICY: THE THREE ‘C’S**

There is only one way in which Latin American countries can compete in today’s global economy while also improving the standard of living of their citizens. They have to accelerate the development of higher value-added and knowledge-intensive activities to generate broad-based upgrading and productivity growth. To achieve that goal, governments need to embrace a new set of industrial policies. The lessons of the last 60 years suggest that three big “C’s” form the core of such a policy set.

**Capability development.** The top agenda item, around which all other policies should be organized, is developing technological capabilities. Today, internationally traded services, and especially the integration of products and IT-based services, offer important new areas for the development of knowledge-intensive comparative advantages.

**Proactive government policies are needed in three key areas:** providing space and opportunity for companies to learn and adapt technology (through higher tariffs or through different kinds of subsidies); financing for long-term investment (perhaps by bringing back development banks); and developing the necessary human capital and infrastructure (reversing the dramatic decline of public investment in this area).

**Collaboration** with both carrots and sticks. Horizontal industrial policies will continue to be important, but some activities hold greater promise for technological spillovers, increasing returns, and high demand elasticity. These need to be the priority. Targeted support has to be conditional on specified performance criteria and built-in sunset clauses, while acknowledging that it is difficult to define performance criteria for R&D activities.

Institutionalized private-public collaborations are necessary to determine what these targeted activities should be in the country-specific context; here many Latin American countries have gained valuable experience.

**Continuity and coordination.** In order to continue to develop as well as consolidate technological capabilities in production, governments must develop the institutional architecture to coordinate learning and collaboration across different economic sectors and state agencies. This also means ensuring that the skills provided in training and educational institutions match those needed by the private sector.

The rise of China and the realities of today’s global economy make coherent and coordinated policy action toward broad-based upgrading imperative and urgent for all Latin American governments. Inaction means opting for the default road to global competitiveness, with declining wages rather than rising productivity as the basis for participation in the global economy. That’s not development.