



AN INDUSTRIAL POLICY FOR BRAZIL

LANDMARK EVENTS IN BRAZIL'S INDUSTRIAL DEVELOPMENT PROVIDE A STARTING POINT FOR REFLECTION ON THE CHALLENGES CURRENTLY FACED BY THE BRAZILIAN INDUSTRY, AS WELL AS A GLANCE AT WHERE BRAZIL IS HEADED, WITH INDUSTRY AS THE PRIME MOVER AND BULWARK FOR THE NATION'S LONG-RANGE DEVELOPMENT. THE ARTICLE STRIKES A BALANCE BETWEEN RECENT TECHNOLOGICAL INDUSTRIAL POLICY AND BRAZIL'S DEVELOPING FOREIGN TRADE.

A BRIEF SKETCH OF BRAZILIAN INDUSTRY

Brazil's industrial development is set off by clear and definite milestones and underscored by policies regarding organization of partly state-owned companies, economic plans, large-scale subsidies and the creation and development of basic national industries.

Government efforts aimed at industrializing the country are clearly discernible when we look back to the 1940s. Basic industry was considerably strengthened by the creation of the National Steel Company (CSN) and the Companhia Vale do Rio Doce (CVRD) mining concern in the early part of the decade. The 1950s saw the founding of the National Economic Development Bank (BNDE) – subsequently renamed National Social & Economic Development Bank (BNDES) – and Petrobras, which strongly boosted Brazil's then-incipient industrial development. To the power and transportation industries – on which solicitous

attention was focused at the time – infrastructure was added to provide support for expanding Brazil’s installed industrial capacity. The inauguration of an automaking and household appliance industrial complex in the interior of São Paulo brought enormous progress in durable goods manufacturing capacity.

The latter half of the 1960s brought the emergence of a military régime to the country, and with it a series of economic reforms. It was during that period that Brazil went through the so-called “economic miracle” characterized by rapid development and record GDP growth of up to 12% per year (an 18% growth rate for heavy industry). Investment came pouring into infrastructure, basic and transformation industries, capital and durable goods production, and agribusiness in an effort to transform the country into an emerging power with access to capital markets.

Up until the 1970s, at least two aspects of Brazil’s industrial policy set it apart from a number of countries in Europe and Asia (especially Japan and South Korea). Firstly, the opening up of the economy to attract foreign investment, in which a number of supply chains added multinational corporations to their managerial capacity. Infrastructure projects and several government undertakings received financing from foreign sources. Secondly, the industrialization based on imports-substitution, with no strategic plan to export and nationalize its companies.

At the close of the economic miracle, which coincided with the first international oil crisis in 1973, came a global recession and high interest rates. The supply of credit contracted and Brazil’s foreign debt became a critical issue, while industrial development fell off considerably. The burden of foreign debt, dwindling GDP and high rates of inflation were keenly felt in those unhappy days of “stagflation”- economic stagnation coupled with inflation.

The return to democracy in Brazil brought with it a number of economic plans aimed at doing away with inflation and creating favorable conditions to sustainable development. With the opening up of Brazil's economy during the 1990s, came sharp reductions in import tariff rates and economic deregulation.

A number of changes made in the recent past were intended to bring the country in line with the realities of a new global economy. Market deregulation, fewer restrictions on hiring and an end to government monopolies in industries such as oil, power, steelmaking, telecommunications and transportation were adopted along with other changes to ease the transition. An important victory in this process was the control of inflation. Industry nevertheless was still buffeted by international competition, and many felt the need for public policies designed to encourage domestic manufactures.



THE BRAZILIAN INDUSTRY NOWADAYS AND THE CHALLENGES OF INDUSTRIAL POLICY

If the world's economies were ranked in order of competitiveness, Brazil's industrial capacity would end up close to the center of the scale. At the lower end, we have competition based on lower costs, with the upper end populated by innovation and product differentiation. It so happens that countries situated at either end of the scale are shifting toward the middle positions, and there is a very real possibility that countries close to the center of that scale may lose their place in the global economy.

Brazilian industry, in effect, faces competition "from below," coming from companies in countries with poor wages and even poorer working conditions (long hours, scarce benefits and weakened rights to organize), that see their opportunities in lower costs and compete by cutting prices. Some of these companies, particularly those headquartered in Asian countries, seek to achieve lower costs through innovation, thereby creating pressure "from below" in an effort to shift themselves upward. The high end of the competitive spectrum is dominated by innovative companies located primarily in high-income countries having better wages and better working conditions. These are companies seeking to create new consumer needs, open up new markets and charge a premium for their leadership. Some of these companies have sought to cut costs by outsourcing manufacturing to countries with lower pay scales or some other relative advantage, or by streamlining operations in their own home countries.

Taking this view of the present as a starting point, the vision of the future for the nation's industries is an approach "from above", fostering a shift in industrial competitiveness through innovation and differentiated products and services, with access to and recognition by all the

world's largest markets. It is a vision closely bound up with technological innovation, with a place at the forefront of science and technology—to include education at all levels, and digital inclusion—and a more proactive approach to foreign trade in more technological industries, bringing Brazilian companies into international competition for leadership in development of nanotechnology and biotechnology products, especially the industrial and commercial development of biofuels. Strengthening and broadening Brazil's industrial base while increasing the innovative capacity of companies comprising that foundation is the key to sustainable growth. It's a whole new kind of growth.

BRAZIL'S INDUSTRIAL, TECHNOLOGICAL AND FOREIGN TRADE POLICY

Brazilian industrial policy developed within the context of a paradigm shift in the relations between State and Society, in which the public sector sought to bring about a business environment favorable to productive investment, while the private sector busied itself with seeking out opportunities and making investments.

Brazil's Industrial, Technological and Foreign Trade Policy (PIT-CE), unveiled in March of 2004, has unique features which clearly distinguish it from previous policies. Its purpose is to bring increased efficiency and competitiveness to Brazilian companies and place them in international markets, thereby creating jobs and increasing incomes. In tandem with this freshly-drafted industrial policy was the creation of the Brazilian Industrial Development Agency (ABDI), charged with promoting that policy, and of the National Industrial Development Council (CNDI), made up of Government Ministers and representatives from civil society working together to define strategies to guide the appli-



Industry detail

cation of Brazil's industrial policy. That is the institutional approach necessary to create those synergies that enable the public sector and private industry to pull together to move the nation's industrial development forward.

The title itself summarizes Brazil's industrial initiative: Industrial, Technological and Foreign Trade Policy—in other words, it relates industrial development (modernization and productivity upgrades) to technological innovation and the ability to compete in the international arena. Its purpose is to raise Brazil's industrial competitiveness and chart its course to increased innovation and product differentiation. The policy is in harmony with prevailing international trends in the direction of technological development, and in absolute compliance with all of the nation's treaties in force—notably those under the aegis of the World Trade Organization (WTO).

Its directives are arranged along three complementary axis:

- 1) Horizontal vectors for all segments of the economy, aiming toward technological innovation and development, foreign market penetration, upgrades to industry (including small and medium-size companies and local productive arrangements), improving the institutional environment and stimulating investment.
- 2) Vertical factors for the four industries identified as strategic to Brazil's economic development, as well as a larger national share in their international trade: semiconductors, software, capital goods, pharmaceutical products and medications.
- 3) Activities with promising futures: biotechnology, nanotechnology, biomass and renewable energy.

INDUSTRIAL, TECHNOLOGICAL AND FOREIGN TRADE POLICY: BALANCE – 2004 AND 2005

Brazil's Industrial, Technological and Foreign Trade Policy called for institutional reengineering, redefining all necessary elements for efficiently and sustainably leveraging industrial development. It also hastened the arrival of instruments important to industry, such as the Innovations Law—which after four years of being kept off the Congressional agenda, passed in record time and became effective in October 2005. The law was assembled around three axis: creating an environment favorable to strategic partnerships among universities, technology institutions and companies; fostering participation by science and technology institutes in innovative processes; and encouraging corporate innovation.

The Biosafety Law is another example of a measure related to industrial policy—and an important step forward for its category. Provided with statutory backing in November of 2005, this law creates safety standards and oversight mechanisms for all activities involving Genetically Modified Organisms, restructures the National Biosafety Technical Commission and creates the National Biosafety Council while also providing for embryonic stem-cell research.

An integrated industry funds management model introduced in 2004 is noteworthy in that it serves as an innovative way to help strengthen the nation's science and technology system. This new model—to be consolidated into regulations governing the National Science and Technology Development Fund (FNDCT) made it possible to integrate a large fraction of investments in funds by transversely bringing them in line with government priorities, eliminating duplication and scattershot initiatives while imparting greater transparency and efficiency to the use of resources. The new Industry Funds management

model was so structured as to make it possible to funnel over 60% of all available resources for new funds investment into government industrial policy priorities in 2004 and 2005. Added to this are reimbursable credits which Finep offers companies, in order to encourage R&D activities. The new management model increased the efficiency with which funds resources were handled, finding uses for approximately 99% of all resources available in 2004 and 2005. Application of FNDCT resources—comprised primarily of Industry Funds resources—increased from R\$343 million in 2002, to R\$628 million in 2004, and then to close to R\$800 million in 2005.

Another relevant figure comes from the National Social & Economic Development Bank (BNDES). The total available for investment in Brazil's Industrial, Technological and Foreign Trade Policy is approximately R\$4.4 billion all told.

An unprecedented six months after publication of the law creating it, the Brazilian Industrial Development Agency was already consolidated and engaged in organizing and promoting industrial policy activities. By partnering with entities representing private initiative, ABDI has created new works based on two parallel action strategies—increasing the innovative capacity of companies and broadening and strengthening Brazil's basic industries. For each of these axis there is a mobilizing macroprogram, able to carry out initiatives for exploiting national industrial potential. Two different macroprograms were created, Strong Industry—precisely for purposes of shifting industry to a new competitive level, and Innovate Brazil, to mobilize companies, universities, technological development & research institutes, business entities, labor unions, government agencies and civil society for purposes of increasing innovative capacity within Brazil's industrial economy, and add to those activities each entity was already involved in while enlisting the cooperation of others in the process.

FUTURE OUTLOOK

Brazil's Industrial, Technological and Foreign Trade Policy is an important addition to recent public initiatives. It is based on a concerted model of measures and instruments aimed at increasing productive efficiency and raising competitive standards within Brazilian industries. Mindful of the future, its primary focus is on innovation. Structural changes to Brazil's economy, through the addition of foreign markets to company strategies, provide another example of the kind of synergy industrial policy can bring about. This made it easier to compete in more demanding and differentiated markets and proved a way of breathing new vigor into Brazil's installed industrial capacity.

The National Initiative for Innovation is already underway, coordinated by CNDI and put in practice by ABDI. Its purpose is to bring about broad national mobilization, bringing together companies, universities, technological R&D institutes, business entities, labor unions, government agencies and civil society to increase innovative capacity within Brazil's industries by collectively building a long-term strategy organized in terms of horizontal and vertical themes.

Brazil's industrial policy is indeed a State policy—a necessary building-block for sustainable long-term growth. One must not, however, forget that the transformation of industry is industry's own job. The State has the duty to give direction, lend support and provide incentives for the process, thereby creating propitious conditions to the development of the nation's productive capacity. A closer dialogue between the State and private sector is therefore a paramount concern, as are the integration of government actions with manufacturing activities, and the involvement of the scientific and technological

community with the workforce. The future being erected upon these current initiatives is more than just promising; it is already delivering substantial results to Brazilian society.

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