
MADE IN
BRAZIL

**The government is betting on an aggressive protectionist industrial policy to make Brazilian industry more competitive. However, the history of Brazilian industrial policy raises doubts about how effective this will be—attempting to shield industry from competition may well backfire.**

**Claudio Accioli,** Rio de Janeiro

Discussion of industrial policy has a long history, starting with the Second National Development Plan (PND), which outlined Brazil's industrial policy for 1974 through 1979. Given the adverse global economic environment following the first oil shock, the PND set out an ambitious program of import substitution. Again, after the first, protectionist, Information Technology Law was passed, the discussion heated up: The law established a market reserve for industry, preventing the import of products and components in an attempt to defend national industry and encourage domestic scientific research. Though the law was relaxed in the early 1990s, the debate about protectionist preferences was reignited after the opening to car imports exposed the fragility of the Brazilian car industry, which barriers to entry had protected for years.

Today, in an unstable global economy and with increased competition worldwide, the government is returning to the policy of using laws, public funding, grants, procurement or special arrangements to promote national production and content in the petroleum, shipbuilding, defense, electronics, audiovisual, and automotive industries among others. As with any controversy, there is no consensus. For some, the policy is justified because industry is increasingly vulnerable and unable to compete, suffocated by the "Brazil cost" and by the flood of imported goods stimulated by an appreciated exchange rate. For others, it is a setback, a regression to the past that will only further disrupt the Brazilian industrial sector.

## PROTECTIONISM ADVANCES

The Greater Brazil Plan launched last August was expanded this April with a package of incentives for industry to increase national content and innovation

**Today, in an unstable global economy and with increased competition worldwide, the government is returning to the policy of using laws, public funding, grants, procurement or special arrangements to promote national production and content.**

worth about R$60 billion (US$35 billion, 1.5% of GDP). The package extends preferences in government purchases to medicines, pharmaceuticals, biopharmaceuticals, and bulldozers produced domestically; creates the National Broadband Plan (PNBL), which exempts national equipment and infrastructure investment in telecommunications networks from taxes; expands incentives for national production of semiconductors; and sets out a new automotive regime for 2013–2017.

For good or evil, the Rousseff administration has made "defense of domestic industry and markets" an explicit goal. "We are seeking to implement the strategy as a way to leverage the current investment cycle in Brazil to encourage the supply of domestic inputs and produce, and add value to domestic industry," explains Heloisa Menezes, secretary of production development, Ministry of Development, Industry and Foreign Trade (MDIC).

In the case of financing, the idea is to extend to other official banks the concept of the Finame program of the National Bank for Economic and Social Development (BNDES), granting credit lines for purchase or production of machinery and equipment that have national content of 60% or more. To this end, the BNDES coffers were reinforced with another R$45 billion to reduce the cost and extend the period for loan repayments.

As for utilities concessions, the MDIC plans to extend the 1999 model in the oil and gas segment in which the National Petroleum Agency (ANP) requires bidders to document in tenders a minimum percentage of national content.

The Greater Brazil Plan also gives tax breaks for acquisition of local goods and services and for investments in research and development (R&D). The new automotive regime grants automakers more exemptions from the industrial product tax (IPI) if they increase the domestic content of components.

## COMPUTER INDUSTRY

Since for a long time protection efforts and nationalization focused on information technology, that history allows us to assess how well protectionist policies work. In 2010 at the request of the Ministry of Science and Technology the Department of Science and Technology Policy Institute of Geosciences of the University of Campinas (Unicamp) did a study of how the IT Law affected IT sector performance between 1998 and 2008. Unicamp found that the

total income of beneficiary companies nearly quadrupled, productivity grew 42% more than in companies without incentives, and investment in R & D increased 30%.

However, this did nothing for Brazil's position in the global market. In 2008, according to the OECD and the United Nations, Brazil ranked 27th among IT exporters—just as it had in 1998. In those 10 years, the Unicamp study pointed out, while Brazil's annual exports doubled from US$1 billion to US$ 2 billion, South Korea's shot up from US$34 billion to US$114 billion and China's from US$$26 billion to US$79 billion.

Researcher Mauricio Canêdo Pinheiro, Brazilian Institute of Economics of the Getulio Vargas Foundation (IBRE-FGV), believes the IT case proves that policies to encourage local content in Brazilian industry are inefficient and need to be rethought. In IT, he says, "Brazil has not become an international player; it cannot sell its electronics other than in the domestic market." Pinheiro is also critical of domestic content rules for the oil industry: "For years this has been a requirement of the National Agency of Petroleum, but with only one or two exceptions, there is no evidence that domestic suppliers are becoming more competitive internationally."

**The Greater Brazil Plan launched last August was expanded this April with a package of incentives for industry to increase national content and innovation worth about R$60 billion (US$35 billion, 1.5% of GDP).**

Economist José Márcio Camargo, Opus Investment Management, cites another problem: "Petrobras is working with a high rate of local content. Since the government is the majority shareholder, there is a direct cash transfer from the taxpayer to the producers, whether in the form of tax advantages or of accepting a smaller profit." Camargo says the domestic content requirement in fact assumes that local products are less competitive than imported; otherwise, the protection would not be necessary. "This causes two distortions," he says. "If the domestic product is more expensive but the same quality as the imported one, it becomes less competitive in terms of price. But if it is more expensive and of substandard quality (which is very likely), it becomes less competitive because of both higher price



Photo: Vladimir Platonow/ABr.

Measures to increase the national value-added are intended to promote the defense systems industry, particularly Brazil's nuclear submarine project.

**For good or evil, the Rousseff administration has made "defense of domestic industry and markets" an explicit goal.**

and decreased productivity in the industry as a whole."

Economist Pedro Cavalcanti, FGV Graduate School of Economics (EPGE), has similar concerns, saying ."Certainly industry productivity will be affected—if it has not already been, because the data show stagnation in recent years. ... We have adopted almost perpetual protection for various sectors of the economy without achieving any positive results. An industry that has skilled workers and productive capacity would not need this kind of advantage."

The circle is vicious: The more protection, the less productive and competitive an industry becomes, which in turn calls for more protection.



## SUNSET PROVISONS

The main shortcoming of Brazil's protectionist policies is that they have no sunset provisions. Pinheiro explains, "International experience shows that industrial policies fully achieve their objectives only if they have a set time limit and benefits decrease over time. This is not the case with Brazilian protectionist policies. The way it is done here, the tendency is to create a captive domestic market, with higher prices and no prospect of becoming internationally competitive."

"How many years are necessary to protect certain industries? 20? 30 years? And who pays for the loss of productivity during all this time?" asks Cavalcanti. Throughout Brazil's economic history, productivity has always grown when domestic markets were opened up to external competition. "In the long run," Camargo adds, "restrictive and protectionist measures have always taken the Brazilian economy backward."

Pinheiro points out that Brazil's industrial policies are counter to those that produced the successful industrialization of Japan, Taiwan, Singapore, and South Korea, who used every means available to bridge the technological gap—from shared investments to joint ventures and importation of machinery and

equipment. He describes how it was done by South Korea, a leader in shipbuilding: "First, they became competitive by gaining efficiency in any way possible, buying ship parts where the price was best. Once they established their reputation as a major international player, they focused on local content just as the other countries did."

Pinheiro thinks the Brazilian Aeronautics Company (Embraer) is a shining example of how well this recipe works. He explains that "Brazil has become competitive in the sale of medium-sized aircraft in large measure because Embraer is free to purchase parts and equipment wherever is most advantageous.... The company has a local production chain in São José dos Campos city in São Paulo state, but most of its supplies are imported. If it were required to purchase them in Brazil, it would probably be off the market in two years."

## ASIAN LEAP

However, others see differences between Brazil and the Asian tigers. David Kupfer, professor of economics, Federal University of Rio de Janeiro (UFRJ) and consultant to the president of BNDES, points out that "In Brazil, over decades we have built up a very complex and diversified industry. We cannot ignore what already exists ... we need to restructure it and equalize with the international scenario. This is strategically very different from the situation of Asia, where industrialization was incipient."

**The circle is vicious: The more protection, the less productive and competitive an industry becomes, which in turn calls for more protection.**

Kupfer sees policies promoting local content as indispensable for stimulating competitiveness. "There is an ideal vision according to which the increase of local content would be a natural consequence of industrial development, a kind of indicator of the competitiveness of a sector," he says. "The higher domestic production, the more competitive the industry would be. However, we live in a time of major structural change, the result of globalization and fragmentation of world production, led by countries like China that industrialized late . . . In this context, policies to incentivize domestic content are a decisive factor for reintegrating Brazilian industry into the global production chain."

Glauco Arbix, president, Funding of Studies and Projects Agency (FINEP) of the Ministry of Science and Technology and member of the Greater Brazil Plan Executive Committee, agrees with Kupfer: "Because the world economy is placing severe restrictions on Europe, the USA, and Japan, there is a dynamic movement of the axes of production in which Brazil has to participate, as India and China are doing. This is an excellent opportunity for developing countries to restructure for the generation of

**"International experience shows that industrial policies fully achieve their objectives only if they have a set time limit and benefits decrease over time. This is not the case with Brazilian protectionist policies."**

***Mauricio Canêdo Pinheiro***

technology. It's the smarter way to take advantage of the crisis."

In Brazil, the issue of local content is still associated with protection of inefficient firms that cannot compete. "The problem is that any policy, any limitation to so-called free market activities is always subject to that criticism that there will be a loss of competitiveness," Arbix says. "However, no sector of the economy is closed or protected in such a way that knowledge-intensive areas cannot enter. Rather, what we are doing is making a great effort to attract the intellectual centers of multinational companies already operating here, in order to energize Brazilian industry."



Photo: Embraer.

Aircraft maker Embraer has become competitive globally without subsidies or protection from foreign competitors.

## PROTECT TO COMPETE?

Kupfer thinks the incentives for local content need to be adjusted to the new national and international realities, but their importance should not be neglected. He highlights three areas of action: stimulus to productivity, technology, and innovation in segments, such as metal-mechanics, that were once at the core of industrial expansion but have lost competitiveness because of Brazil's years of disorganization and low macroeconomic growth; measures to support traditional industrial sectors where production conditions are challenged by international competition, such as textiles, clothing, footwear, furniture, foods, plastics and metal artifacts, and simple metallurgy; and support for technologies not yet fully developed by Brazilian industry, especially electronics, pharmaceuticals, and fine chemicals.

Whatever the strategies they argue for, all agree that the best way to protect domestic industry from foreign competition is to make it more competitive. The question is how. In specifying areas of action Kupfer seem to

go in two different directions: (1) help the most vulnerable sectors by granting tax advantages or setting prices, without necessarily requiring major expansion of local content or innovation; and (2) invest in new technologies that add value to products and effectively increase Brazil's ability to compete on equal terms with its main competitors.

For most experts, the first group would be most problematic. Without performance or innovation targets, protecting sectors just because they face heavy competition or an exchange disadvantage is a stimulus for inefficiency. "In the Greater Brazil Plan, the law giving preference in public purchases benefits mature and traditional sectors in Brazil that must compete with imported goods. In this situation, the policy is clearly a stopgap," says Pinheiro.



**Throughout Brazil's economic history, productivity has always grown when domestic markets were opened up to external competition.**

Camargo reinforces the point: "The company that knows it is protected in general does not invest. Look at the automotive industry. Our carmakers started up in the 1960s and Korea's in the 1980s, but we cannot compete with them. We always seem to be depending on a boost from government." He asks, "Suppose some of the shocks to industry are structural, and that some sectors have definitely lost the ability to compete, either because of costs or types of product. Will we protect them forever?" Cavalcanti adds, "The candle industry once was very important, but no longer once the light bulb appeared."

## STRUCTURAL CHANGES

Mario Bernardini, economist and consultant to the Brazilian Association of Machinery and Equipment (Abimaq), thinks government procurement policy is a valid instrument for protecting and encouraging industry generally, even though it does not directly benefit the capital goods segment: "All developed countries use government power to stimulate and develop production. The United States has done this for decades, though they denounce developing countries that use this policy."

**In Brazil, the issue of local content is still associated with protection of inefficient firms that cannot compete.**

Yet Bernardini also asserts that such measures will do little to promote competitiveness without deep structural transformations. "We are reaping what we sow by choosing an exchange rate anchor to contain inflation," he says. Thus, domestic products cost almost double what imported goods cost. "The Greater Brazil Plan is not an industrial policy but a set of specific initiatives that ... do not solve the competitiveness problem. We need concrete goals to accelerate reduction of the Brazil cost."

Almost all analysts agree with Bernardini. Kupfer thinks the future of industry depends less on advantages associated with local content than on improvements in the business environment, a more efficient national economy, and efforts to train workers. Cavalcanti insists, "We must reduce the tax burden, invest in infrastructure, reduce bureaucracy, and cut payroll taxes. ... The aluminum industry has even thought of leaving the country, not because of the exchange rate but because of taxes."

## TECHNOLOGY FRONTIER

While there is some consensus on the dangers of indiscriminate protection, there is also a conviction about the need for actions that promote innovation. Arbix believes that Brazilian companies can respond to the challenge, producing technological goods of a quality superior to what is offered overseas. "Take the case of oil," he says. "The frontiers of seismology, advanced physics, new materials, thermodynamics, and nanotechnology are focused on exploration and exploitation of deep sea oil. Is it reasonable that a country like ours, with a high caliber oil company like Petrobras and with significant oil reserves, has no company among the 100 most important in providing technology to extract oil in deep waters?"

Kupfer adds, "Brazil is investing in turbines for



wind energy production. Much of the value of the project is in the electronic sensor equipment—but we are not doing that part. … We should take advantage of this investment cycle to develop our own technology, which would certainly have positive spillover effects on other supply chains and helping to increase the competitiveness of industry as a whole."

But which sectors should be prioritized? Pinheiro gives priority to biotechnology and genetic research and to building on Brazil's comparative advantages in areas like agribusiness. Cavalcanti is "100% in favor of domestic investment in technology, research, and innovation in the areas where we have competitive advantages. This by nature involves risk, but that is justified by the possibility of high return. This is very different from subsidizing industries."

## TIME TUNNEL

Protectionism carries risks. Past protectionist policies generated an extensive comfort zone for Brazilian industry. Pinheiro offers an example: "In the late 1970s and early 1980s, Brazil adopted an aggressive protectionist policy for the shipbuilding sector, financed by the Merchant Marine Fund. We were second in the world rankings, behind only Japan. But then came the oil shock, the fund ran out of money, and in a few years our shipbuilding industry simply disappeared because it was unable to walk on its own without government protection."

**"Suppose some of the shocks to industry are structural, and that some sectors have definitely lost the ability to compete, either because of costs or types of product. Will we protect them forever?"**

***José Márcio Camargo***

Local content policies should be tied to innovation and technology, targeted to sectors that have high capacity to spread knowledge, and focused on long-term results. "If such policies are applied widely and uncritically, they run the risk of becoming an instrument of short-term protectionism, generating only inefficiency," says Flávio Castelo Branco, executive director of economic policy, National Confederation of Industry (CNI).



Photo: Agência Petrobras.

The government wants to protect the national suppliers of capital goods for the oil and gas sector from foreign competitors.