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Abstract

Brazil's trade and industrial policies in the last decade has taken an increasingly sharp turn towards boosting and protecting the local manufacturing industry, particular after the 2008 financial crisis. This paper reviews these policies and their initial results and argues that, while they have brought some short-term relief, they have done so at the cost of undermining the fundamentals of long-term growth. The country's recent lackluster economic performance—an unfortunate combination of high inflation, low growth, and a deteriorating current account deficit seem to confirm this view.

Key words: Brazil; Trade Policy; Industrial Policy; Latin America

Introduction

In the last two decades, Brazil has been exposed to important structural changes in the world economy that have posed major challenges to policymakers. Primary among them is the more competitive economic landscape, with the emergence of Asia, particularly China, as the "workshop of the world," a growing intra-industry international division of labor in manufacturing, and an innovation/product differentiation race led by the U.S. and the more human capital-centered advanced economies. The problem of effectively responding to these changes was significantly compounded by the Great Recession and the ensuing slowdown in the world economy. Taking center stage in the debate is the future of Brazil's manufacturing industry, squeezed between the currency appreciation of a commodity boom and an unforgiving competition. The tribulations of the manufacturing sector have touched a particularly raw nerve, since industrialization has been traditionally perceived as the country's only path to development —a perception reinforced by Asia's success stories.

Amid a growing protest from industrialists and labor, and pressed by the industry lackluster domestic and foreign sales and growing import dislocation, the government has resorted in the last decade to a combination of preferential credit,

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capital injections, fiscal incentives, and protectionist measures, ranging from tariff and non-tariff barriers to local content rules. The scale and breadth of these measures —which have clearly reached new heights since the Great Recession— seem to signal a break with past attempts at rationalizing and limiting government intervention to key or demonstrable market failures, and raise a number of as-yet unanswered questions. Is across-the-board protection and promotion of the manufacturing industry the best strategy to ensure that it remains a major source of growth and innovation in Brazil? Is such a strategy sustainable in view of the government's limited fiscal resources? Is the targeting of specific sectors and firms consistent with the democratic principles of transparency, accountability, and equality of opportunities? To what extent does this strategy leverage the country's resource endowments or, conversely, limit the growth possibilities allowed by them? How to avoid technological obsolescence, productivity stagnation and rent seeking that have been associated with these types of policies in the past?

This paper argues that the answers to these questions do not seem to support the reshaping of policy that took place in the last decade. Whereas there is no doubt that it has brought some short-term relief, particularly in the struggling manufacturing sector, it has done so at the cost of undermining the fundamentals of long-term growth, not to mention the damage to the country's democratic governance. Brazil's economic history as well as its lackluster economic performance after the recent financial crisis —an unfortunate combination of high inflation, low growth, and a deteriorating current account deficit, fueled by unwise policy interventions and poor management of expectations— seem to confirm this view.

Rather than rehashing questionable policies of the past, the best way for the country to meet the challenges of a transformed world economy is to resume its attempts to streamline government intervention, whose limited resources should be focused on providing public goods, strengthening institutions, and addressing classic market failures in education, infrastructure, and science, technology and innovation (S&T&I). The country would also benefit from further trade liberalization to improve resource allocation and boost productivity. An open and competitive economy is the one best positioned to respond to the global challenges and opportunities brought about by the growing maturity, sophistication, and mobility of firms from both developed and emerging economies. Experience suggests that open-ended protection and government support is hardly conducive to systematic gains in productivity and innovation, consistent with the country´s comparative advantages. To the contrary, the absence of policies facilitating restructuring will most likely doom the country´s manufacturing sector.

This paper is divided into four sections including this introduction. In the following section, we review the main policy changes in the product (taxes, subsidies, and

government procurement) and factor (credit, labor, and technology) markets, and make the case for resuming the rationalization of state intervention. Trade policy is the focus of the third section, where we argue that even a more selective and rational "industrial policy" would neither revive the fortunes of the manufacturing sector nor put the country in a sustainable growth path without the support of lower trade barriers at home and abroad. The last section sums up the main arguments and policy recommendations.

Reshaping industrial policy in time of crisis

In coming years Brazil will need to face the challenges of low investment, sluggish productivity growth, and insufficient innovation, most critical in the case of manufacturing. Rising wages have not been offset by productivity gains —resulting in a significant increase in unit labor costs for both the industrial and services sectors. Equally important have been the high costs beyond the factory gate, driven by weaknesses in infrastructure,[1] the low quality of government services (in education, health care, and public safety), and a tax burden that is 15 percent of GDP higher than most other middle-income countries. Finally, low levels of integration into the global economy have been hindering the modernization of industry, with a negative impact on firms' incentives and their ability to innovate.

The key initiatives of the decade--To address these challenges – compounded by the Great Recession -, the government put together a number of sprawling policy initiatives Three stand out: the 2004 "Industrial, Technological and Foreign Trade Policy" (PITCE in the Portuguese acronym), the 2008 "Productive Development Policy" and the 2011 "Great Brazil Plan" (Plano Brasil Maior).

The PITCE was the first and arguably best designed of the three initiatives for having its focus on innovation, while acknowledging the key role played by exports (though, not by imports) in fulfilling the program objectives.[2] The two most important pieces of legislation were the "Innovation Law"--signed in December 2004--which facilitated the collaboration between public research institutions and private firms;[3]and Law 11.196/05 (known as "The Good Law" or "Lei do Bem" in

[1] For many years, per capita investment in infrastructure has been below depreciation levels. It is usually acknowledged that 3 percent of GDP would be the minimum to offset per capita depreciation of infrastructure assets, based on the international experience. See the discussion in Frischtak (2013).

[2]See "Diretrizes de Política Industrial, Tecnológica e de Comércio Exterior" November 2003, availableathttp://www.desenvolvimento.gov.br .The emphasis on innovation resulted from a series of studies by the Brazilian Institute for Applied Economic Research (IPEA) that analyzed the determinants of Brazilian business performance. These studies suggested that innovation efforts involving brand building, distribution systems, and product differentiation are associated with increased export levels as well as with better-quality, more productive and better-paid jobs. For a historical approach to and tentative rationale for the PITCE, see Salerno and Daher (2006).

[3]See http://www.mct.gov.br/index.php/content/view/8477/Lei_de_Inovacao.html

Portuguese), signed in December 2006, which granted fiscal incentives for research and development (R&D).[4]

This legislation was complemented by other horizontal policies, mostly targeted at small and medium firms (SMEs) such as "the Statute of the Small and Medium Firm,"[5] and by sectoral policies mainly designed to generate and disseminate information, and improve coordination between producers and users of technology. That was the case, for instance, with the development of "Brazil Technology Network"--focused on energy, oil, and gas--and other initiatives to support the software and pharmaceutical industries: initiatives that can be justified on knowledge spillovers and public health grounds.

The PITCE also sought to lower the cost of capital goods through fiscal and financial incentives (including import tariff exemption for goods not produced in the country) and granted some additional incentives for high-tech sectors such as microelectronics, nanotechnology, and biotechnology.[6]

As if sensing that the PITCE was falling short of its objectives, the government launched a new initiative in May 2008. The "Productive Development Policy"(PDP) shared some of the goals of the previous initiative—e.g., higher private spending on innovation—but added other significantly more ambitious and broader targets such as attaining a higher rate of investment and higher share of Brazilian exports in the world market. To achieve these goals, the PDP resorted again to a myriad of loosely connected policy measures, which consisted mostly of fiscal and financial incentives for investments in fixed capital, innovation, and exports, some of them targeted to 24 "strategic" sectors, which in practice covered almost all economic activity. Some of these measures simply added to the welcomed tax reductions initiated by the PITCE, but on whole, the PDP relied more heavily on boosting the volume and reducing the cost of preferential credit channeled through official banks led by the National Development Bank (BNDES).[7]

What is the estimated fiscal cost of both programs? For the PITCE, the Finance Ministry allocated R$ 37.6 billion for 2004-06, 0.6 percent of the GDP in the period. For PDP, the cost of tax exemptions was estimated at R$ 21.4 billion for 2008-10, or 0.3 percent of GDP (excluding BNDES' substantial interest rate subsidies). These costs—from 0.3 to 0.6 percent of GDP—though significant, would be dwarfed by the fiscal burden imposed by the post-Great Recession initiatives.

[4] See http://www.mct.gov.br/index.php/content/view/8586/Lei_do_Bem___Capitulo_III.html. "Lei do Bem" aimed at reducing innovation costs through automatic income tax deductions and other tax incentives applicable to R&D. In addition it allowedgovernment entities to effectively share innovation risks with firms, by subsidizing the early phase of the innovation process.
[5]See http://www.planalto.gov.br/ccivil_03/leis/lcp/lcp123.htm
[6]See Salerno and Daher op. cit.
[7]See CNI, "Avaliação da Política de Desenvolvimento Produtivo," Brasilia, May 2008.

What was the impact of these programs? There is some evidence that instruments such as the 2006 Lei do Bem may have contributed to the rising trend of R&D expenditures in the second half of the last decade as shown in Table 1.Kannebley Jr. and Porto 2012, for instance, estimate that this law raised firms' R&D expenditures by a modest, but statistically significant, 7 to 11 percent. There is not, however, any hard evidence about the impact of the PDP and this is hardly surprising as the onset of the Great Recession in September of 2008,and ensuing government anti-cyclical measures (see below),made any rigorous evaluation a challenging, if not impossible, task.

What is clear is that the program was hardly promising, as it resorted to widespread intervention with little regard for comparative advantages or well-defined market failures. It is hard to see how measures that distorted relative prices and resources allocation, while reducing competition in the domestic market, could address the fundamental issues holding back Brazil's economy such as low productivity growth, high infrastructure and regulatory costs, and a heavy tax burden.

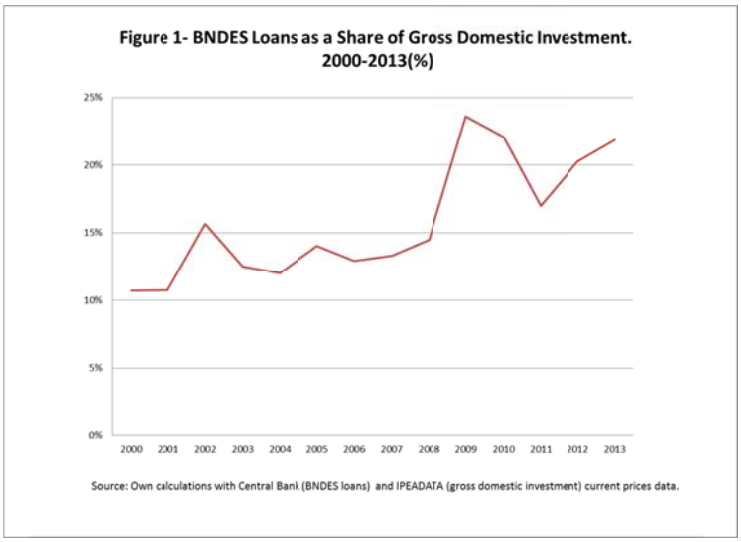
Table 1**:** Distribution of National Spending on R&D by Financing Sector 2000-2010 (% of GDP)

Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Business	0.47	0.47	0.46	0.44	0.42	0.49	0.51	0.52	0.53	0.56	0.55
Government	0.55	0.57	0.53	0.52	0.48	0.48	0.50	0.57	0.58	0.60	0.61
Total	1.02	1.04	0.98	0.96	0.90	0.97	1.01	1.10	1.11	1.17	1.16

Sources: www.mst.gov.br, General Coordination of Indicators (CGIN)-ASCAV/SEXEC.

The shortcomings of the PDP strategy would become more evident with the launch of the Brasil Maior Plan in 2011, fundamentally a scaled-up and more generous version of the PDP, based on a similar diagnosis of the nature of the problems faced by the Brazilian economy and its manufacturing industry.[8] It involved a new and more comprehensive round of loosely connected discretionary tax and financial incentives, led by an even greater role for BNDES. While BNDES has been *the* instrument for the anti-cyclical policies since 2009, its balance sheet was already substantially larger prior to the crisis, driven in part by the support to "national champions" (Figure 1).

[8]For details of the PDP see http://www.brasilmaior.mdic.gov.br/conteudo/129.



As with the previous initiatives, Brasil Maior overlooked to a large extent the obstacles holding back the Brazilian economy and the industrial sector in particular. What it did was to change the scope, extent, and frequency of interventions, using the need to address a major disturbance--the financial crisis—as a cover to offer a menu of initiatives that would not only have a significant fiscal cost, but reinforce the growing perception that economic policies had become erratic and reactive.

Using the crisis to escalate intervention—With the 2008 crisis, the government's initial reaction focused on the expansion of credit by the public banks, mainly BNDES, and a concerted action by the Central Bank to provide liquidity in both the Brazilian real and the U.S. dollar.[9] In 2008, the PDP had already reduced the (federal) sales tax on cars (IPI) with a view to boosting sales, among other consumption-promoting policies.[10] Although the economy shrank by 0.3 percent in 2009, it is very likely that its performance would have been far worse due to the great uncertainty, the vulnerability of the financial system, and the global recession.

The credit expansion and fiscal incentives, combined with a rise in public spending in a context of pent-up demand for durable consumer goods (including cars), led to a substantial upswing in 2010—the economy grew by 7.5 percent, well above its potential. In fact, the rate of inflation, which at 4.2 percent in 2009 was below the Central Bank´s 4.5 percent target, rose to 5.7 percent in 2010 and to 6.5 percent in 2011 -- the new government's first year in office. In that year, GDP growth fell to 2.7

[9] See in this respect Mesquita and Torós (2010). With the onset of the crisis, BNDES launched the Investment Support Program (Programa de Sustentação do Investimento – PSI), backed up in 2009-10 by a contribution of R$ 180 billion from the Treasury. Public banks Banco de Brasil (BB) and Caixa Econômica Federal (CEF) also received R$ 6 billion from Treasury in this period to expand their lending capacity — both to offset the contraction in private credit in 2009. With additional contributions in 2012, CEF and BB started a significant interest rate reduction process in April that year and increased the public banks' share in the total credit (see notes 14 and 18 below).

[10] This measure was extended successively for five years (until December 31, 2013), and was reinforced when the "Inovar Auto" program was launched in October 2012 and effective between 2013 and 2017. Under the new regime, the 30 percentage point reduction in IPI is contingent on the manufacture and purchase of parts and materials in the country and on the innovation efforts by the automotive firms.

percent, a reflection not only of the Euro crisis, but also of domestic factors. The primary budget surplus reached 3.1 percent of GDP, with changes in the cabinet-- some brought by corruption charges--adding to the normal difficulties in budget execution at the beginning of a new government, while rising labor costs and excess demand for services pressed inflation.

To counteract the 2011 slowdown, the government shifted to policy hyperactivism, with an initial focus on the apparent overvaluation of the real, whose causes were attributed to a "currency war." In a series of aggressive interventions, the Central Bank managed to reverse a decade-long trend of exchange rate appreciation, with the real devaluating by approximately 30 percent between July 2011 and July 2012. The Central Bank also shifted its monetary policy stance in August 2011, with its own brand of "ultramonetarism." The benchmark interest rate (SELIC) was cut in little over a year by 5.25 percentage points to 7.25 percent--the lowest level the country had seen in decades--while the macro prudential policies in force since the end of 2010 were dismantled.[11]These moves were combined with the launching of Brasil Maior in August 2011, soon followed by an array of additional tax incentives (for firms and consumers). In parallel, BNDES continued to expand its balance sheet at a brisk pace, providing investment financing at subsidized rates.

As growth decelerated further in 2012 (to 1 percent) and inflation remained at high levels (5.7 percent), the government's reaction was to "double the bet," in the hope that generous incentives for consumers and firms would revive animal spirits and push up investment. The thinking was that government expenditures would also help nudge the economy towards a path of consistent economic growth.[12] At the same time, the government presumed that a combination of tax exemptions plus price controls would succeed in holding back inflation.[13]By early 2013, however, it became clear that policy activism had failed to boost growth, despite the ballooning fiscal costs, while inflation continued to rise. This unhappy combination eventually

[11] The Central Bank lowered from 16.5 to 11 percent the minimum capital requirement for consumer loans for a maximum 60-month term, and lowered the minimum credit card payment from 20 to 15 percent of the total credit card amount. The reduction of the SELIC benchmark interest rate, in view of the world economic crisis, was seen *ex post* as a correct measure, largely because it was accompanied by a larger budget surplus (3.11 percent of GDP in 2011), in fact the highest in the current administration.

[12] In 2012, the government decided to further involve public banks such as CEF and BB, in addition to BNDES, in increasing the lines of credit and forcing a drop in interest rates, and transferred R$ 13 billion and R$ 8.1 billion to CEF and BB, respectively. Between 2008 and July 2013, the public banks' share in total lending grew from 33 to 50.5 percent. At the same time, in June 2012, BNDES offered a special line of credit of R$ 20 billion to the states, and the limit of indebtedness of 21 states was expanded to R$ 58.3 billion for infrastructure investment. In the same month, the limit to the states' participation in PPP contracts was increased from 3 to 5 percent of their net current revenues.

[13] In March 8, 2013 Provisional Measure #609 zeroed federal taxes for a wide range of food and personal hygiene products after the inflation hike at the beginning of the year, at an estimated fiscal cost of R$ 5.5 billion in 2013, and R$ 7.4 billion in 2014. In the case of gasoline and diesel oil, the subsidies associated with price controls were borne by Petrobras and the Treasury, the latter through the reduction of the CIDE (excise tax on fuels) at a cost of R$ 8.6 billion in 2012.

forced the government to begin rethinking its policy stance under the double threat of a cost of living escalation and the downgrading by rating agencies.[14]

A closer look at the trust of policy hyperactivism reveals that most initiatives were directed towards: a reduction in the cost of investment; a lowering labor costs; and the stimulus of domestic consumption while minimizing import "leakage."

Investment Cost Reduction. To boost investment, the government adopted measures along two dimensions: *First,* the ample provision of soft financing, with BNDES spearheading the effort with the Investment Support Program (Programa de Sustentação do Investimento– PSI). The program was launched in January 2009, while the PDP was still in force. In August 2011, with Brasil Maior already in place, PSI was extended until December 2012, and BNDES received a R$ 55 billion loan from the Treasury (on top of the R$ 180 billion since 2009). In April 2012, the second phase of the plan extended PSI until December 2013, with an additional transfer of R$ 45 billion from Treasury to BNDES.[15]

During 2012, the government gradually lowered BNDES' most competitive long-term interest rates (TJLP): at the end of June, TJLP fell to 5.5 percent (from 6 percent, set in June 2009), and in August 2012 to 5 percent. In parallel, the PSI interest rate for machinery, equipment, and trucks dropped from 5.5 to 2.5 percent. In 2013, the PSI rate began a slow ascent. In January it was set at 3 percent, and in the second half of the year at 3.5 percent (4 percent for buses and trucks), all of which was still significantly below the Treasury opportunity cost.[16] Given that money is fungible, the availability of ample finance at negative real interest rates created incentives for opportunistic behavior: companies could in principle borrow from BNDES and pay out dividends, provided the cost of the loans was *lower* than the cost of the stockholders' equity (as discussed below).

The *second* dimension of the investment incentives involved broader and lengthier tax exemptions for capital goods, construction materials, and trucks and light

[14]The fiscal impact of the successive packages of incentives introduced by the government was felt from 2012 onwards, when the government had to resort to so-called "creative accounting" in order to attain the primary surplus target set in the Appropriation Act. The government considered as "savings" R$ 34 billion spent in the context of the Growth Acceleration Program (PAC), and added in December R$ 12.4 billion from the Sovereign Wealth Fund and R$ 7.7 billion in dividends from BNDES and CEF, with the primary surplus amounting to 2.38 percent of GDP (instead of 3.1 percent). In 2013, the situation worsened, as the primary surplus dropped 41 percent in the January-September period vis-à-vis the year before, accounting for 1.28 percent of GDP.

[15] In September 2013, the balance of the government loans to BNDES amounted to R$ 382.89 billion, i.e., 8.2 percent of GDP, of which PSI accounted for R$ 237 billion. In addition to PSI, BNDES runs with different rates and terms, a number of other programs. The Ministry of Finance estimates that the implicit subsidies granted by the Treasury to BNDES were R$ 11.8 billion and R$ 12.7 billion in 2011 and 2012, respectively; and projected to reach R$ 10.31 billion and R$ 15.67 billion in 2013 and 2014, respectively. The decrease of the SELIC benchmark interest rate in 2012 —and a reduction in the Treasury opportunity costs— limited the growth of subsidies in 2012, and the opposite should be taking place in 2014. The share of the BNDES portfolio in total lending is quite significant, just over 20 percent versus 15.8 percent of the German development banks and 11.7 percent of the China Development Bank. For a positive assessment of the development role of BNDES in recent years, see Ferraz, Além and Madeira (2013),

[16] Initially (July 2009, the PSI rates were set at 4.5 and 7 percent for machinery/equipment and trucks, respectively. In July 2010, they were raised to 5.5 and 8 percent and in April 2011 again increased to 8.7 and 10 percent. In 2012 the government reversed course, lowering the PSI rates in April to 7.3 and 7.7 percent, and in May to 5.5 percent.

commercial vehicles, extended until December 2013. In August 2012, the government allowed for the accelerated depreciation of capital equipment, reducing it from ten to five years. In April 2012, REPORTO —a program to encourage investments in ports, roads, and railways by exempting them from the payment of import duties and indirect taxes--was broadened to include investments in warehousing, environmental protection, security, and monitoring (as long as domestic equipment was unavailable). Finally, the National Broadband Plan (Plano Nacional de Banda Larga) granted indirect tax exemptions for the purchase of domestic equipment and civil works related to the telecommunications network infrastructure.

Reduction in Labor Costs. The most significant (and unprecedented) measure was adopted in August 2011 to encourage labor hiring. The 20percent social security payroll tax was replaced by a 1.5 percent tax on revenues for selected labor intensive sectors: clothing, leather and footwear, software (2.5 percent) and call centers.[17] In April 2012, the benefit was extended to another 11 sectors (textiles, furniture, plastics, electrical equipment, auto parts, bus, naval vessels, airplane, capital goods, hotels, chip design) and all the sectors started to pay 1 percent over gross revenues (2 percent for software firms and call centers).[18] By 2013, the payroll tax exemptions covered 42 sectors (including civil construction). Finally, in April 2013, the government proposed to extend them to 14 additional sectors (including transport, media, defense, infrastructure works, architecture and engineering services, machinery and equipment installation and maintenance).

Consumption Incentives and Domestic Market Protection. The dismantling of macroprudential measures by the Central Bank in October 2011 was followed in December 2011 by initiatives to stimulate consumer spending. They included a lower financial transaction tax (IOF) on consumer credit (from 3 to 2.5 percent), a temporarily lower IPI tax on major appliances (white goods such as fridges, ovens, and washing machines) and a similarly lower PIS/COFINS (and federal sales taxes) on pasta products. One year later, in August 2012, the government extended the IPI tax incentive until December 2012 for major appliances, furniture, panels, plates, and lamps.

In May 2012, the IOF rate on consumer credit operations was again lowered to 1.5 percent, and the Central Bank reduced the mandatory reserve requirements in the amount of R$ 18 billion. The purpose was to stimulate financing operations for the acquisition of cars and light commercial vehicles. Also in May 2012, the government

[17] The fall in INSS revenues is being compensated by transfers from the Treasury.

[18] Exports were exempted, while in the same package launched in April, the payment of PIS/COFINS was deferred from April and May to November and December for auto parts, textiles, clothing, footwear, and furniture firms.

launched a new set of measures primarily concerned with the automotive industry, which involved a lower IPI rate for passenger vehicles (proportionally higher for vehicles with larger engines), which translated into lower prices as agreed with automakers.[19] Finally, in April 2013, the IPI rate reduction was extended until the end of 2013.

Claiming the need to stop the consumption incentives from leaking to imports, the government made a number of protectionist moves, beginning with the decision to raise the IPI rate on imported vehicles by 30 percentage points in September 2011.[20] In April 2012, on the grounds of leveling the playing field, the PIS/COFINS rates on competing imports for the sectors that received payroll tax exemptions were increased by a percentage equivalent to the new sales tax rate (1 to 2 percent). In August 2011, the Government Procurement Act (No. 12,349/2010) granted federal government bids a margin of preference of up to 25 percent to local manufacturing and services firms that complied with Brazilian technical standards.[21] In June 2012, the "PAC Equipment" program was launched, increasing the public sector purchases of local equipment, vehicles, and machines by R$ 6.61 billion (for a total of R$ 8.43 billion in 2012).[22]

Was this effort worth it? In 2008-09, a global liquidity crisis in the midst of great uncertainty called for rapid and effective responses, of a magnitude commensurate with the external challenges faced by the Brazilian economy. In such a context, the response of the Brazilian government —led by the Central Bank— proved both effective and low cost, very likely having prevented a deeper recession in 2009. Even in the absence of a counterfactual, the mild recession suffered by the Brazilian economy and the quick recovery suggest that the anti-crisis measures were timely and effective.

However, in 2010, after the recession was over, the political cycle kept the expansionary policies in place, fueling further increases in public expenditure and credit, in addition to the tax exemptions already in force. The decision to keep the

[19] The IPI cut also applied to trucks and light commercial vehicles, and introduced as part of the investment incentive measures.

[20] The Plano Brasil Maior comprises a wide range of protectionist measures: it shortens from 15 to 10 months the term to investigate antidumping practices and from 240 to 120 days the time frame to apply a provisional duty; proposes to enlarge the list of MERCOSUR exemptions by including 100 additional products; and advises public banks to finance only projects with minimum national content levels and involving employment creation. Furthermore, by virtue of this plan, the National Institute of Metrology, Quality and Technology (INMETRO) is responsible for ensuring that imported goods comply with domestic standards. The government also created Reintegra, a special schedule whereby exporters of locally manufactured goods receive a tax refund of 3 percent of the value of their exports within a 60-day period, as an offset for tax payments along the value chain, if not otherwise exempted.

[21] In April de 2012, margins of preference were provided to medicines (8 percent for two years); drugs and biologics (20 and 25 percent for 5 years, respectively); and backhoes and road graders (10 and 18 percent, respectively, until December 2015). For medicines, drugs, and biologics, annual procurement was estimated at R$ 3.5 billion; for all other items, the amount was estimated at R$ 400 million.

[22] It included: armored vehicles, missile launch vehicles, farm vehicles, agricultural supplies, and ambulances, among others. This had little impact in 2012 due to the low level of expenditure execution —of a total amount of R$ 8.4 billion, only R$ 2.4 billion were effectively paid— and to a larger number of contracts negotiated at the end of 2012 to guarantee the resources committed. See *Valor*, 01/18/2013, p. A5.

stimulus going was taken even though by the end of 2010 it was already clear that Brazil did not have a problem of slack demand. On the contrary, there were already signs of inflationary pressures coming from the goods and labor markets (unemployment fell to 6.7 percent in 2010 and to 6 percent by the end of 2011, while real wages were growing above productivity).

Some of the measures taken were particularly at odds with this scenario of a tight labor market. The payroll tax exemption, for instance, in a context of virtual full employment and low productivity, probably reduced incentives to improve management efficiency and reallocate capital, postponing a desirable industrial restructuring, while encouraging demands for protection.

Other initiatives clearly had conflicting objectives. Consumer incentives in a context of low domestic savings and a growing current account deficit do not help sustain investments, the main goal pursued by PSI. In addition, while soft loans and tax incentives for the acquisition of capital goods and other fixed assets are likely to have encouraged investment, the net effect is not clear since they also increased the government's financing needs, exerting pressure on long-term interest rates.

It is not surprising then that in 2012—the first year in which incentives were fully in force — the economy expanded by only 1 percent and inflation reached 5.8 percent. The supply constraints seem to have been compounded by the uncertainty created by measures whose logic economic agents could not comprehend. In this process, not only investment projects were held back, but consumer confidence—already under strain by rising inflation and debt levels--was also eventually hurt.

Furthermore, the greater incentives for firms and households to increase debt and reduce savings, as well as the clear deterioration of the public accounts, led to a major drop in national savings, particularly in the private sector (see Table 2), pushing the current account deficit to 3.7 percent of GDP in the second quarter of 2013. The sharp drop in private savings is particularly worrying since it might be pointing to a substitution of firms' retained earnings by heavily subsidized public funds. [23]

[23] See Rocca and Santos Jr. (2013). An approximate and preliminary estimate by the authors suggests that almost R$ 20 billion of BNDES resources may have been used to offset the reduction in corporate savings in the form of retained earnings in a one-year period (second half of 2012--first half of 2013), and are likely to have been allocated to substitute distributed dividends. Using an average GDP of R$ 4.5 trillion in 2012-13 as a reference, the BNDES contribution to the increase investment financing —44 percent— would cover the difference between a private savings contraction of 2.94 percent of GDP and a reduction in investment of 1.94 percent of GDP, i.e., **0.44 percent of GDP**. The low cost of PSI loans for firms vis-à-vis the stockholders' capital cost would account for the behavior of businesses in increasing their leverage with BNDES resources (perhaps also with funds from other unidentified public sources). See Antonio Delfim Netto ("Queda da poupança privada"), in *Valor*, 19/11/2013, p. A2.

Table 2: Investment and Gross National Savings as a percentage of GDP

	2010	2011	2012	2013 *
Investment	20.24	19.73	17.64	18.06
Private Investment	17.43	17.38	15.20	15.44
Gross National Savings	17.53	17.23	14.77	14.37
Private Savings	19.16	18.75	16.05	15.81

Source: Rocca and Santos Jr., op. cit., Annex 1. (*) 1st semester.

The results in terms of productivity were also disappointing. Modest labor productivity gains[24] combined with rising incomes led to a substantial increase in unit labor costs. In many sectors, productivity has been stagnant or even declined (Table 3).

Table 3: Brazil: Value Added per Employee by Broad Sectors, 1995-2010.

	1995	**2000**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Agriculture	1.36	1.37	1.45	1.42	1.51	1.64	1.62	1.66
Mining	1.78	3.81	5.55	5.55	4.76	6.23	3.61	6.20
Manufacturing Industry	0.90	0.92	0.98	0.93	0.90	0.90	0.93	0.91
Construction	1.21	1.32	1.31	1.19	1.13	1.01	1.02	0.99
Trade and Services	1.11	0.92	0.83	0.85	0.85	0.85	0.87	0.85
Public Administration	0.51	0.47	0.49	0.52	0.56	0.59	0.59	0.62

Sources: Prepared by the authors based on data from RAIS, IBGE and IPEAData.

Poor economic performance was accompanied by –- and to a great extent resulted from -- the significant fiscal and economic costs of all these initiatives. While estimating these costs is not a simple matter because of the large number,

[24] According to The Conference Board Total Economy Database (January 2013), the average annual variation (in %) of GDP (USD PPP) per person employed between 1996 and 2012 was 0.91 percent for Brazil. In contrast, it was 1.68 percent for the U.S.; 1.77 percent for Thailand; 1.82 percent for Indonesia; 2.14 percent for Malaysia; 3.19 percent for South Korea; 4.87 percent for India; and 8.36 percent for China.

complexity, and ongoing nature of most of these measures, some of the estimates available leave no doubt about the magnitude of resources involved. The payroll tax substitution, alone, for instance, quickly escalated from an estimated 0.4 percent of GDP in 2013 to a projected 0.7 percent of GDP in 2014.[25]

Overall, it seems clear that after the initial shock of the financial crisis, which required emergency demand-support measures, government policy should have shifted towards improving the supply side of the economy. The financial crisis did not change the fact Brazil's growth constraints are basically structural in nature and are not to be overcome by temporary tax relief or financial incentives--particularly if they are undertaken on a piecemeal basis, and are not part of a broader policy framework which guides specific actions. These need to be designed to encourage resources to flow to areas which the country has clear or effectively emerging comparative advantages or focused on relevant market failures.

Another important concern is with the exit from these policies. When the government finally comes to terms with their poor results, it will likely face fierce resistance against the elimination of incentives that tend to benefit just a few sectors or firms. As Mancur Olson warned in his classic work, concentrated benefits, even if not in the public interest, tend to linger, so long as their costs are widely dispersed across society. [26] Thus, policies that attempt to shift resource allocation in the economy should be ex-ante assessed on a cost benefit basis. A system of regulatory reviews needs to be instituted to ensure ex-post that such policies still serve the public interest.

Looking for alternatives--When it comes to resuming long-term sustainable growth, there are clearly "Pareto superior" alternatives to policies that prevailed in the last decade, particularly after the financial crisis.[27]To begin with, any successful policy intervention asks for a clear strategy, focusing on well-defined objectives that are consistent with market failures and the government's ability to address them. A loose cannon strategy should be avoided at all costs. What is the core, structural problem of Brazil's economy? Supply side constrains driven by low investment, productivity and innovation, which as a whole undermine the competitive position of Brazilian firms in the domestic and international markets. A good place to start would be to communicate a credible strategy designed to revamp Brazil's insertion in the global economy. Economic agents must be convinced that the government has

[25] The first government estimate of its fiscal cost was R$ 4.3 billion for 2012, and R$ 7.2 billion for 2013 and 2014. More recently, IBRE - Getulio Vargas Foundation, put them at R$ 18.7 billion and R$ 34.8 billion in 2013 and 2014, respectively. See Afonso and Leal de Barros (2013).

[26] See Olson 1965.

[27] A contemporary discussion of the future of the Brazilian industry and the role of industrial policies is found in Bacha and Bolle (2013), and in Canedo Pinheiro (2013). The latter reviews the rationale and limitations of industrial policies.

a clear understanding of the problems facing the economy, and the industrial sector in particular, and is willing to risk political capital to solve them.

What would be the essence of this strategy? The evidence available seems to indicate that competition is vital to boost productivity and innovation in the medium to long term.[28]Thus, industrial policy should facilitate the entry of new actors by reducing the barriers to competition. It should also promote exports, as the global market offers economies of scale and is competitive enough to stimulate the assimilation and use of new knowledge. Finally, the strategy should aim at the removal of protectionist barriers and subsidies, which are usually captured and perpetuated by well-organized sunset and low productivity industries.

This strategic direction has clear implications and political costs. For example, public funds should not be spent to strengthen the market power of existing players, to shield them from competition, or even to create "national champions" that rarely play the disruptive role of Schumpeterian firms. Nor should they be used to distort relative prices to support activities in which the country clearly has no static or dynamic competitive advantages.

We do not need to go any further than Brazil's own poor record to understand the risks of this type of policy. The most notorious failure was the attempt to create a captive market for local computer firms in the mid-1980s, whose welfare and productivity costs can hardly be underestimated.[29]This painful experience led to more benign IT policies in the early nineties, under the umbrella of the Informatics Law (Law 8248)--later the subject of several amendments--which opened the sector to foreign competition, but that tied a number tax and R&D incentives to cumbersome local content rules. Not surprisingly, a recent rigorous evaluation of the Law could not find any significant statistical impact on R&D expenditures.[30]These difficulties, however, did not stop renewed attempts to target the local industry, such as the recent decision to spend considerable additional public resources on wafer manufacturing, even after the (catastrophic) experience with CEITEC (National Center for Advanced Electronic Technology) in Porto Alegre (and its proposed updated replica in Belo Horizonte).[31]

What should be done instead is to promote entrepreneurship, facilitate the start-up of new businesses, and encourage the creation of ecosystems linking sources of

[28] See, for example, Baumol (2002) and Frischtak et al. (1989).

[29] In this regard, see Luzio and Greenstein (1995), who analyze the substantial welfare losses that arise when industries are unable to rapidly catch up to the technology frontier despite initial productivity gains. For a successful case in the aircraft industry, see Frischtak (1994).

[30] See Kannebley Jr. and Porto (op. cit). A recent audit by the Federal Audit Court makes it clear that the Law not only is poorly designed, but the implementation is deeply flawed. See AcordãoTC 013.747/2013-4 http://ow.ly/vmDxt

[31]See, e.g. http://www.estadao.com.br/noticias/impresso,estatal-de-chips-leva-10-anos-para-estrear,517168,0.htm and http://convergenciadigital.uol.com.br/cgi/cgilua.exe/sys/start.htm?infoid=32394&sid=7#.UyOA1qlDt8E

knowledge (universities, research institutes, technical schools), financing from the public and the private sector (angel financing, venture capital), and the provision of basic infrastructure. The latter include technology parks, business incubators, and hash spaces, associated with high-speed connections. In the latter case, it is essential that communication service providers build the backbone to ensure universal access to high-speed broadband connections.

Though a potential source of growth opportunities, the IT sector is, perhaps, just a niche amid Brazil's wide array of comparative advantages. There is probably a lack of understanding of what these advantages are and how to make the most of them. Brazil has a privileged endowment of biodiversity and natural resources, and it can produce, with a high degree of efficiency, biomass, and agricultural and mining products, in addition to conventional and renewable energy. Gone are the times of a country centered on the "exports of primary products" by isolated enclaves. These days, the processing of natural resources has little of "primary production" and a lot of research, development, engineering, logistics, and the capacity to sell both in commodity markets, and more often, to the final consumer. Moreover, clusters of more sophisticated activities flourish around the production of commodities. These will develop to the extent the country counts on a skilled workforce and a favorable business environment, as in Canada, Australia, Norway, Sweden, Finland, among others.[32]

Despite all this potential, government policies have often been more of a hindrance than a help. For instance, price controls and subsidies to gasoline and diesel, part of a dubious (and ineffective) anti-inflationary policy, led to a major setback for investments in ethanol and biomass. Its adverse effects have been felt not only by Petrobras—Brazil's dominant state-owned oil company-- but also on the sugar cane value chain. As long as the consumers' decision to use ethanol (in flexible-fuel vehicles) depends on the price ratio between ethanol and gasoline, price controls on the latter have a direct impact on the demand for ethanol (and on its prices). As a result, sugarcane cultivation, sugarcane field renovation, investments in new plants and, consequently, biomass and ethanol production have been discouraged. And a whole array of industrial activities in related capital goods and input industries has been adversely affected. Furthermore, the policy uncertainty has discouraged investments in a myriad of activities that are intensive in engineering and scientific knowledge, by affecting the price and supply elasticity of the two basic elements of the value chain: biomass and ethanol. [33]

[32] For an analysis of the role of industrial policy in the promotion of clusters, see Rodríguez-Clare (2007).

[33]Fuel price controls have also undermined many of the potential benefits of the Program in Support of Innovation in the Sugar-Alcohol Sector (Programa de Apoio à Inovação no Setor Sucro-Alcooleiro – PAISS). PAISS, a joint BNDES-FINEP initiative, was launched in 2011

Rather than an isolated case, this kind of policy misstep seems to be part of a more general trend since early in the last decade whereby government intervention, either directly or indirectly—e.g., because of the uncertainty they create—tend to have a significant adverse impact on investment decisions and on the efficiency of resource allocation in the Brazilian economy. The cumulative effects of such missteps are now observable in the current combination of low growth and high inflation that seems to characterize the economy at mid-decade.

A trade policy reversal

Splitting the analysis into industrial and trade policies might be analytically convenient, but it gives the false impression that these policies have intrinsically different objectives. They do not. They are both about government intervention in resource allocation in order to promote economic growth and increase welfare. The difference lies mainly in the instruments used and their efficiency. It is definitely not helpful if these policies point to conflicting directions, with offsetting results. Nor is it helpful if they point in the same direction, but based on a questionable diagnosis. Brazil's experience in the last decade had elements of both.

Protection at home--To begin with, there seems to have been a clear change in the goals of the country's trade policy. If in the 1990s, the aim was to integrate Brazil into the global markets, with a decisive push to remove tariff and non-tariff barriers, in the 2000s, the goal seems to have shifted towards protecting local industry.[34]It can be argued that the turning point was the decision to extend the imposition of PIS-COFINS--one of Brazil many indirect taxes--to imports in 2004.[35] As shown in Figure 2, this "simple" measure, when combined with the import tariffs applied to non-MERCOSUR countries, doubled the average protection on local production. It effectively took the country back to levels of protection not seen since the start of the liberalization of the economy in the early 1990s, whose phase-out took at least a decade.[36]

Figure 2 also reveals that this measure worsened the already chaotic structure of protection that had unfortunately survived the liberalization, which can only be attributed to the clout of specific interests.[37] What economic argument can be made to justify the decision to grant 50 percent protection to the automotive industry and less than half of that to the food industry?

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and is primarily targeted at firms engaged in R&D. It supports both incremental and radical innovations (such as second-generation ethanol) in a sector where the country has clear comparative advantages.

[34]See Moreira (2009) for a more detailed analysis of Brazil's trade policy post- trade liberalization.

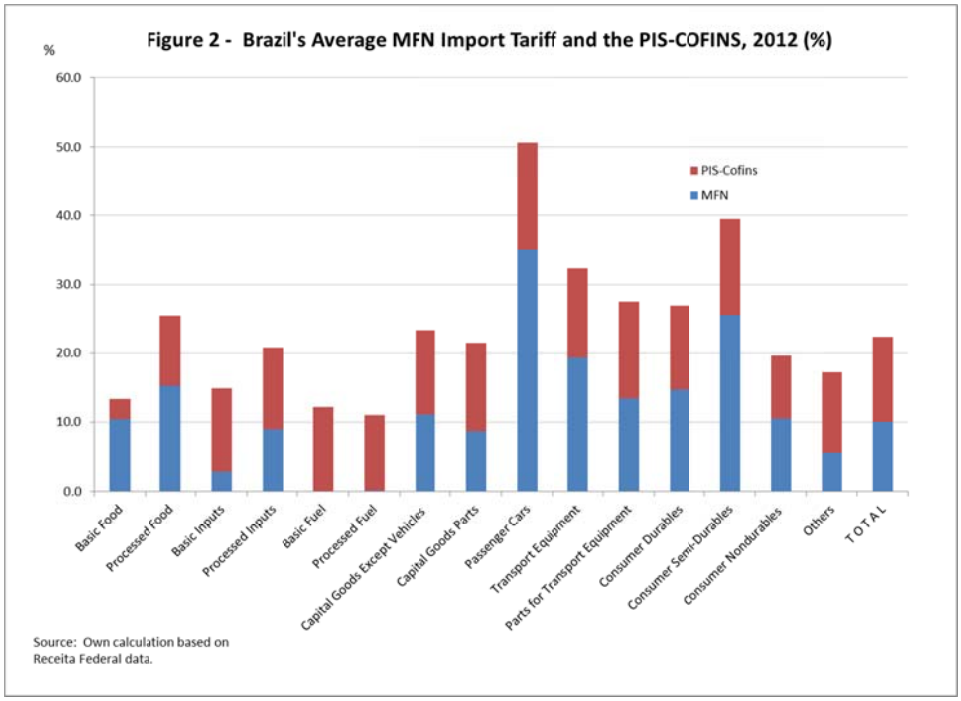
[35]PIS and COFINS are federal taxes imposed monthly on firms gross revenue. PIS and CONFINs rates for most goods are, respectively, 1.65 and 7.6 percent. http://www.receita.fazenda.gov.br/pessoajuridica/pispasepcofins/

[36] The MFN rate of duty in 1991 was almost 21 percent (WITS-TRAINS).

[37] Such a striking variation among sectors is even more absurd when the so-called effective rates of protection are estimated. The variation in such cases may range from 180 percent for automobiles to –5 percent for the alcohol sector. See Castilho *et al*. (2009).

The PIS-COFINS extension was justified on the grounds of leveling the tax burden between imported and locally produced goods. However, it is difficult to speak of equalization when the country, despite all its liberalization efforts, still has one of the highest import tariffs in the world, in terms of both its mean and peak values. Moreover, the tax base of PIS-COFINS included until very recently (October 2013) customs duties and the tax itself, magnifying the impact of the import tariffs.[38] That is still the case of other indirect federal and state taxes, such as the IPI--whose tax base includes customs duties--and the ICMS, whose tax base includes customs duties, the IPI, and itself. [39]This peculiar way of taxing means that imports, even if customs duties are left aside, have a significantly higher tax burden than locally produced goods. It can be between 10 (computers) to 78 percent (cars) higher.[40]

Finally, even if leveling the playing field were a valid argument, the most rational thing to do would be to eliminate the PIS-COFINS altogether (with a corresponding cut in the ever growing public expenditures). That would have a much more beneficial impact on heavily taxed local producers than the higher taxation on imports, particularly because their competitiveness often depends on having access to imported inputs at international prices.



These tax changes were followed by other measures that did not have the same far-reaching impact, but pointed in the same direction. The number of products subject

[38]Brazil's Supreme Court in March 2013 issued a decision concluding that the PIS-COFINS tax base should not include the value added tax (ICMS, which has customs duties in its tax base) or the PIS-COFINS itself. This decision was put into law in October 2013 (Law 12,865/2013).

[39]The IPI is a federal VAT-type of tax levied on manufacturer's sales . ICMS is a value-added tax levied by the states on the circulation of goods and the provision of interstate and inter-municipal transportation and communications services.

[40] Estimates based on the tax simulator of the Secretariat of Federal Revenue made in April 2013. http://www.receita.fazenda.gov.br/Aplicacoes/ATRJO/SimuladorImportacao/default.htm

to import tariffs higher than 25 percent, for instance, tripled, between 2000 and 2012.[41]Non-tariff barriers—long abandoned since the liberalization—also made a comeback. The most striking cases were the 30 percentage point increase in the IPI for imported cars and the up-to-25 percent margin of preference for local firms in government procurement, both already mentioned in our analysis of Plano Brasil Maior. The IPI increase was later repackaged as the "new automotive regime," as a growing number of trade partners questioned its legality under the WTO regulations (Decree 7819, October 2012).[42]The margins of preference can be seen as a part of a broader trend towards increasing local content requirements, led by the state-owned Petrobras and the ANP-- the oil and gas regulatory agency.[43]

Limited market access abroad--The focus on protecting the local industry also seems to be behind the country's failure to improve its access to global markets. Despite the growing proliferation of regional trade agreements (RTAs)in Latin America and around the world, Brazil has not gone beyond MERCOSUR, which dates back to the early 1990s, except for a number of very limited deals with countries such as India, South Africa, and Israel. The result is local exporters, particularly manufacturers, facing tariffs in key regional and global markets that can be significantly higher than those paid by their direct competitors.

To make matters worse, MERCOSUR seems to have lost momentum, weakened, on the one hand, by the increasing protectionism of its major economies and, on the other, by the accession of countries with diverging economic policies and regulatory frameworks. Given its dominant role, Brazil's recent trade policy is particularly damaging for the bloc's long-term prospects since it makes the adoption of a more rational common external tariff---one that could minimize the costs of trade diversion for the smaller members--all the more unlikely.

Behind the reversal—The motivation behind Brazil's recent trends in trade policy seems to be driven by concerns about currency appreciation, unfair competition (China and other Asian countries), or by the need to respond to an alleged widespread activism on the part of national States. These concerns tend to be aggravated by the deep-seated perception that manufacturing is the country's only available engine of growth.

It seems reasonable to argue that these concerns are rooted in Asia's rapid growth, particularly in the growth of China and India, which are flooding the manufacturing goods market with rock-bottom prices, while boosting the demand for raw materials--the prices of which have reached historical peaks. Despite many

[41] See Baumann and Kume (2013).
[42]Under the "new automotive regime", all producers, local or otherwise, are submitted to the higher IPI, unless they meet certain conditions such as having local production, with a high level of local content, invest 0.5 % of gross revenues in P&D and meet a certain criteria of energy efficiency. See http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2012/Decreto/D7819.htm
[43] See Tordo*et al.* (2013).

assurances to the contrary, this phenomenon does not seem to put Brazil under the threat of a classical "Dutch disease," defined by a temporary commodity boom that leads to a permanent destruction of the manufacturing industry.[44] On the contrary, the evidence points not to a cyclical change, but to a structural break in the trend of relative prices between manufacturing goods and commodities, similar to one driven by the U.S.' emergence at the beginning of the last century, except that this time it is in the opposite direction.[45]

In this scenario, a protectionist shock, such as the one Brazil has been experiencing, seems to be particularly counterproductive and damaging. It will literally freeze the economy's current structure in place, eliminating the incentives for an adjustment to the new realities of the world economy. It will prevent resources from flowing into more natural resource-intensive sectors, where the best opportunities for growth and productivity gains seem to lie. Rather than standing in the way of this adjustment, the State should serve as a catalyst, focusing on market failures in human capital, technology, or infrastructure that can prevent the development of more technologically sophisticated, resource-intensive sectors, such as petrochemicals and biotechnology.

In this scenario, it is unlikely that manufacturing, in particular labor-intensive manufacturing, will ever recover their historical GDP shares—the more so because those shares reflected draconian levels of protection and significantly lower per capita incomes. True, this decline might have a short-term negative impact on employment and productivity, but these costs would pale in comparison to those that can be brought by a closed economy. In the long term, short-term setbacks can be more than be offset, on the one hand, by the exploitation and industrialization of natural resources--as has been the case of Australia, Canada, or even the U.S. --and, on the other, by the creation of high-productivity service jobs, which presently account for 60 percent of Brazil's total employment.[46]

There is no doubt that higher protection produces an immediate sense of comfort, as the rents created by the customs barriers attract investments—including foreign direct investments, as has been the case in the auto sector recently. Unfortunately, as Brazil's own history has shown, this sense of comfort is short-lived, and sooner or later it will result in expensive products, outdated technologies, stagnated productivity, and an increasing demand for subsidies to sustain investments that are unsustainable in an open economy.[47]

[44] See Corden (1984).
[45] For a more detailed discussion, see Moreira et al. (2012).
[46] IBGE, Contas Nacionais 2009.
[47] Rios and Araújo Jr. (2012), for example, show that, in the last 15 years, the best-performing sectors have been those with the highest import penetration rate.

Rejecting protectionism and enabling the economy to adjust to a much changed world economy does not mean, however, that the government should not intervene to minimize, for example, exchange rate volatility, as Brazil's Central Bank has been doing. What definitely does not make sense is to use import tariffs to achieve the same objective, particularly if this involves sector-specific increases, altering relative prices. Not only would resource allocation be distorted in a way that does not happen with exchange rate fluctuations, but because tariffs gains are concentrated and costs widely dispersed, they can be easily raised but it takes a great deal of political will to bring them down. The recent devaluation of the real, which dropped by nearly 30 percent between 2011 and 2013, illustrates this point. If higher protection was motivated by currency appreciation, why was there no movement to bring tariffs down after the devaluation? The fact that the country took more than half a century to begin dismantling its protectionist apparatus also speaks to this point.

Likewise, having an open and flexible economy does not prevent the government from intervening in flagrant cases of unfair competition, resorting to trade defense instruments and multilateral bodies, especially the WTO. What cannot be done is to use the violation of international trade rules by third countries as a justification to change the country's own trade policy, particularly if it involves adopting similar prohibited practices. That not only hurts the country economically, but also undermines the credibility of any of its claims against illegal trade practices. Instead of a tit-for-tat, the dominant strategy would be to engage in a more aggressive trade diplomacy, as was exercised against the U.S. in the case of cotton.[48]

Responding to Asia's activism by increasing state intervention beyond trade policy makes even less sense. Aside from the arguments already made above, some of which are also valid in this case, at least three others should be taken into account: i) Brazil's latest experience with state intervention ended with runaway inflation and decades of stagnation; ii) "picking winners," particularly at the firm level, is incompatible with democratic institutions of a; and iii) the relatively modest resources of Brazil's treasury vis-à-vis those of China do not suggest that the country has much to gain from a tit-for-tat strategy, with the additional cost of destroying the legitimacy of any of its unfair competition claims.[49]

In summary, instead of looking for inspiration in past practices, whose results were far from successful--to say the least--Brazil would have much to gain if its trade policy were to resume earlier efforts to better integrate the country into the world economy. Addressing this unfished agenda would involve pursuing at least four major objectives: (a) bring import tariffs to the OECD average level of 6 percent for

[48]See http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds267_e.htm

[49] For a more detailed discussion of these assertions, see Moreira (2011).

all sectors; (b) subject changes in import tariffs to congressional approval; (c) change the status of MERCOSUR from a custom union to a free trade zone, as there is no clear convergence among members over trade or macroeconomic policies; and finally (d) establish effective and expedited negotiations with other regional blocs in the region (Pacific Alliance) and elsewhere in North America (NAFTA), Europe (EU) and Asia (ASEAN, Korea and Japan) in order to open markets for local industry and reduce their disadvantage to competitors.

Conclusion

Over the last decade, government intervention has made a steady comeback in Brazil, reaching its peak in the years after the financial crisis. Both industrial and trade policies have taken an increasingly sharp turn towards boosting and protecting the local manufacturing industry at all costs. There has been a massive increase in soft loans, often targeted at specific sectors and firms; a vast and overlapping array of fiscal incentives has been introduced, often with conflicting objectives; there has been the forceful use of government procurement and local content rules to favor local firms; and, finally, there has been the brazen use of tariff and non-tariff barriers to thwart import competition.

This sharp turn seems to have been originally motivated by the need to respond to important structural changes in the world economy, which has put considerable pressure on the local manufacturing industry, squeezed between a commodity boom and intensive Asian competition. However, this motivation was compounded by the demands of the financial crisis and the Great Recession, which elicited a response that went well beyond classical anti-cyclical policies. It effectively escalated government intervention in resource allocation to an extent not seen since the heyday of the import substitution in the 1970s.

This paper has argued that widespread government interventionism hardly the best response to help local industry adapt to the changes in the global economy. Nor is it the best strategy to put the economy back into a path of sustainable growth. The growing spaghetti bowl of fiscal and credit incentives distorts relative prices, preventing resources from flowing to the most promising and productive investment opportunities. It undermines competition, reducing the incentives to increase productivity and innovate; it adds considerable uncertainty to expected rates of return, holding back investment; and it complicates the management of fiscal and monetary policies, putting macroeconomic stability at risk.

The poor productivity and growth results of these policies so far seem to lend considerable weight to these arguments; even more so if the growing fiscal costs and related inflation and balance of payment imbalances are taken into account. Rather than resorting to an aggressive expansion of government intervention--which in many ways resembles the failed policies of the past--Brazil would be better prepared

to face the challenges of the new world economy if the government were to resume trade liberalization and concentrate its limited resources on providing public goods, strengthening institutions, and addressing classic market failures in education, infrastructure, and innovation.

References

Afonso, José Roberto and Gabriel Leal de Barros, 2013. "Desoneração da Folha de Salário", Nota Técnica FGV/IBRE, September.

Bacha, E. and M. de Bolle (Eds.). 2013. *O Futuro da Indústria no Brasil: desindustrialização em Debate*. Rio de Janeiro: Civilização Brasileira.

Baumann, R. and H. Kume. 2013. "Novos Padrões de Comércio e a Política Tarifária no Brasil,**"** in: **E.** Bacha and M. Bolle (Eds.), *O futuro da indústria no Brasil: desindustrialização em debate*. Rio de Janeiro: Civilização Brasileira.

Baumol, W. J. 2002. *The Free-Market Innovation Machine: Analyzing the Growth Miracle of Capitalism.* Princeton: Princeton University Press.

Canedo Pinheiro, M. 2013. "Experiências comparadas de política industrial no pós-guerra: lições para o Brasil," in: F. Giambiagi, F. Veloso, P. Cavalcanti Ferreira and S. Pessoa (Eds.), *Desenvolvimento Econômico – Uma Perspectiva Brasileira*. Rio de Janeiro. Campus/Elsevier.

Castilho, M. R., A. U. Ruiz and M. Melo. 2009. "Evolução da Proteção Efetiva no Brasil, 2000-2005." XXXVII National Meeting on Economy, 08 A 11/12/2009. AMPEC.

Corden, W. M. 1984. "Booming Sector and Dutch Disease Economics: Survey and Consolidation," in *Oxford Economic Papers*, 35, November, pp. 359-80.

Ferraz, João Carlos, Ana Cláudia Além and Rodrigo Ferreira Madeira, 2013 "A contribuição dos bancos de desenvolvimento para o financiamento de longo prazo," Revista do BNDES No. 40, 12/2013.

Frischtak, C. 1994. "Learning and Technical Progress in Commuter Aircraft Industry: An Analysis of Embraer´s Experience," in *Research Policy* 23, 601-12.

Frischtak, C., B. Hadjmichael and U. Zachau. 1989. "Competition Policies for Industrializing Countries." World Bank Industry and Energy Series 7.Washington D.C. An abridged version was published in *Finance and Development*, 26, 27-29, September 1989.

Frischtak, C. 2013. "Infraestrutura e Desenvolvimento Econômico" in Fernando Veloso, Pedro Cavalcanti Ferreira, Fabio Giambiagi Samuel Pessoal (Eds), Desenvolvimento Econômico: Uma Perspectiva Brasileira, Campus/Elsevier.

Iaquinto, Kalinka. 2013. "Renúncias incertas," in *Conjuntura Econômica*, vol. 67, n. 10, October 2013.

Kannebley Jr. S. and Geciane Porto. 2012. "Incentivos Fiscais à Pesquisa, Desenvolvimento e Inovação no Brasil: Uma avaliação das políticas recentes." BID, Documento para Discussão Setembro 2012 # idb-dp-236

Luzio, E. and S. Greenstein. 1995. "Measuring the Performance of a Protected Infant Industry: The Case of Brazilian Microcomputers," in *Review of Economics and Statistics*, 77, 622-33.

Mesquita, Mário and Mário Torós. 2010, "Considerações sobre a Atuação do Banco Central na Crise de 2008," Discussion Paper 202, Central Bank of Brazil, March.

Moreira, M. M. 2009. "Brazil's Trade Policy: Old and New Issues", in Lael Brainard and Leonardo Martinez-Diaz (Eds.), *Brazil as an Economic Superpower? Understanding Brazil's Changing Role in the Global Economy* (Washington, D.C.: Brookings Institution Press.

Moreira, M. M. 2011. "Shuttered," in *China Economic Quarterly*, 15:3, 22-27.September.

Moreira, M. M., W. Ganesh and G. Pasadilla. 2012. *Shaping the Future of the Asia-Latin America and the Caribbean Relationship*. Joint Report with the Asian Development Bank. Washington, D.C. and Manila: IDB and ADB Press.

Olson, Mancur. 1965.*The Logic of Collective Action. Public Goods and the Theory of Groups*, Harvard University Press, Cambridge, Mass.

Rios, S. and J. T. Araújo Jr. 2013. "Desempenho Industrial e Vantagens Comparativas Reveladas," in: E.Bacha and M. Bolle (Eds.), *O futuro da indústria no Brasil: desindustrialização em debate*. Rio de Janeiro: Civilização Brasileira.

Rocca. Carlos A. and Lauro Modesto Santos Jr. 2013, "Redução da Taxa de Poupança e o Financiamento dos Investimentos no Brasil - 2012/2013," Centro de Estudos do IBMEC, November 2013.

Rodríguez-Clare, A. 2007. "Clusters and Comparative Advantage: Implications for Industrial Policy," in: *Journal of Development Economics*, 82, 43-57.

Salerno, Mario and Talita Daher, "Política Industrial, Tecnológica e de Comércio Exterior do Governo Federal (PITCE): Balanço e Perspectivas," Brasília, September 23, 2006.

Tordo, Silvana, Michael Warner, Osmel E. Manzano, and Yahya Anouti. 2013. Local Content Policies in the Oil and Gas Sector. World Bank Study. Washington, DC: World Bank. doi:10.1596/978-0-8213-9931-6. License: Creative Commons Attribution CC BY 3.0