



FUNDAÇÃO
GETULIO VARGAS

IBRE

Instituto Brasileiro
de Economia

TEXTO PARA DISCUSSÃO

O Novo Modelo de Desenvolvimento Brasileiro:
Realizações, ameaças e lições de política econômica

Título original: Brazil's New Development Model: Accomplishments, Threats, and Policy Lessons

Armando Castelar Pinheiro

Coordenador da Área de Economia Aplicada do IBRE/FGV

Regis Bonelli

Pesquisador Sênior do IBRE/FGV

Dezembro de 2012

Brazil's New Development Model: Accomplishments, Threats, and Policy Lessons

Armando Castelar Pinheiro
Coordinator, Applied Economic Research Area,
Brazilian Institute of Economics — IBRE, Fundação Getúlio Vargas — FGV, Rio de Janeiro, Brazil

*Regis Bonelli*¹
Senior Economist, Applied Economic Research Area,
Brazilian Institute of Economics — IBRE, Fundação Getúlio Vargas — FGV, Rio de Janeiro, Brazil

Introduction

Brazil has embarked on a period of great optimism since the mid-2000s, with improvements in its economic performance and, consequently, its global status. Social indicators also improved considerably, with major declines in unemployment, poverty, and inequality. A new middle class with greater access to credit, has emerged, leading the boom in consumption that has caught the interest of foreign investors and attracted large capital inflows. High domestic interest rates, low levels of government debt, a budget under control, and large gains in the terms of trade have also helped attract foreign capital, with the undesirable result of an overvalued currency—which, nonetheless, helped Brazilians to feel better off.² The country has also become a model of best practices in a number of areas, from financial regulation to conditional income transfer programs, and has become more assertive in global politics, with its international status bolstered by its active participation in the G-20.

This situation contrasts sharply with that of the previous two-and-a-half decades, when growth was low and unstable. Brazil seemed forever doomed to slow growth due to its failure to adopt a more radical program of market reforms. Three questions arise from this dramatic change. First, what has caused such change in the country's economic performance? In particular, what has been the role of domestic policies and external forces such as Chinese demand for Brazil's exports? Second, how sustainable is the recent growth? And third, what lessons, if any, can be drawn from the Brazilian experience?

The paper addresses these questions in looking for a stylized Latin American development model. We see the Brazilian story as a glass half full: While there is much to celebrate, there are also threats. More

¹ The authors thank Samuel Pessôa for helpful comments to an earlier version of this paper, exempting him from any remaining lapses.

² Still, the Brazilian government has been partially successful in insulating the economy from the effects of these flows through the accumulation of foreign exchange reserves and controls on capital inflows. In the absence of this the currency's appreciation might have been even more significant. There has also been, as of late, an effort to increase the primary surplus, thus fostering a better policy mix that will weaken its side effects on the exchange rate.

specifically, we argue that, in the long term, the ability to sustain good performance depends on new reforms, as in other countries in the region.

The macro determinants of growth

After five decades of especially good performance, Brazil's gross domestic product (GDP) growth rates plunged in the early 1980s, failing to return to their previous levels in the following decades (except for a few atypical years). From 1981 to 2003, beginning with the foreign debt crisis and its aftermath, GDP growth became both slower and more irregular, with GDP per capita expanding at a modest 0.7 percent per year, on average. Starting in the mid-2000s, growth accelerated, with a ten-year moving average staying around 4 percent since 2007. Furthermore, with the rapid decline in demographic growth rates, GDP per capita has grown at a relatively healthy 3 percent per year, not far from the 4 percent registered from 1950 to 1980. Still, Brazilians aspire to a better performance.

Major policy change took place in 2005, when Brazil's fiscal, monetary, and public credit policies became more expansionist. This led to a boom in domestic demand in the ensuing years. From 2006 to 2011, domestic demand grew on average 5.6 percent per annum, whereas GDP expanded at a more modest 4.2 percent. This strong expansion in domestic demand stemmed from higher public spending and, what was more peculiar to this period, mutually reinforcing developments in the monetary, product, and labor markets. Looser monetary policy, a substantial increase in lending by public banks (accentuated after the 2008 crisis) and a large influx of foreign capital led to a major boost in credit, notably to consumers.³ This, in turn, caused an expansion in investment and hiring, improving labor market indicators.

While it is not hard to understand what caused the relatively strong recent growth of the Brazilian economy, it is more difficult to say why it did not cause a major acceleration in inflation and an external financing crisis, as often happened in the past. We believe that this resulted from a combination of three main factors: (1) idle resources, in a broad sense, available in the economy; (2) gains in terms of trade stemming from the boom in demand for Brazilian exports and the recession in the global market for manufactured goods; and (3) the large inflow of foreign capital in the period, part of it resulting from the extraordinary monetary expansion in Europe and the United States.

The first half of the last decade was a time of adjustment. From 2001 to 2005 GDP expanded at an annual average of 2.8 percent, while domestic demand grew just 1.6 percent per annum. This resulted in high rates of unemployment and idle capacity in the manufacturing sector. Thus, production could be expanded without major pressures on factor prices. Also critical was that the current account balance

³ From 2003 to 2011 credit to consumers grew 21.8 percent per annum, i.e., four times the growth in payroll, causing a huge expansion in consumption. Retail sales expanded at an average 7.8 percent per annum between 2003 and 2011.

went from a deficit to a surplus. When demand started to grow faster than output, total supply could be expanded by raising imports, while still leaving the external accounts in good shape.

In particular, fears surrounding the ascendancy of President Lula da Silva and the Workers' Party to power led to a major currency devaluation in 2002 that lasted almost three years. When inflation pressures stemming from its weak currency, the real, were controlled, Brazil was left with a very competitive exchange rate. Thus, it had plenty of room to allow for an appreciation of the real, which capped the rise in the price of tradables.⁴

The second reason for the lack of significant inflation was the rise in export prices that started in late 2002, more than doubling in terms of U.S. dollars over the following decade. Import prices also rose, but not as much. This improved the terms of trade, especially in the second half of the decade. In 2011 terms of trade were 35 percent above their 2005 level. Moreover, because Brazil has run a trade surplus, the simultaneous rise in export and import prices also boosted the trade balance. The rise in the price of exports also helped foster investment in export-oriented projects, notably in mining, agriculture, and related activities.

These gains in the terms of trade were essential in allowing for a greater expansion in domestic demand than in domestic supply without running dangerous current account deficits. Thus, from 2006 to 2011 imports of goods and nonfactor services rose 14.5 percent per annum, whereas exports expanded at 2.9 percent per annum, characterizing the "negative contribution" of external demand to output growth. Had export and import prices risen in tandem with U.S. consumer prices (at 2.5 percent per annum) the trade account in 2011 would have posted a deficit of US\$25 billion rather than the actual surplus of US\$30 billion. All else equal, this would have led to a current account deficit of more than one hundred billion dollars, twice the actual \$52.6 billion.

Despite running current account deficits (2.5 percent of GDP in 2011), Brazil boosted its foreign external reserves from 2006 to 2011 due to the large capital inflows recorded over that period. Indeed, Giambiagi and Pinheiro (2012) estimate that in that period total net capital inflows were approximately 15 percent of GDP higher than what was needed to finance the current account deficits. Only part of these extra funds was sterilized, with the rest helping to boost bank deposits and financing in capital markets. These funds helped generate the boom in credit and stock markets. Moreover, they were important to sustain the appreciation of the real, which, in turn, was instrumental in capping inflation in tradable goods.

Finally, the rapid rise in domestic demand was accommodated through greater tolerance of inflation. The first sign that the economy was overheating was the rise of inflation in 2008, when the international financial crisis hit Brazil, lowering growth and inflation pressures through the later part of the year and

⁴ From 2003 to 2011 the Real gained 50% in value, controlling for inflation, against a basket of currencies of Brazil's main export markets.

most of 2009. Yet, already in late 2009 inflationary pressures were back. Overall, annual consumer price inflation averaged 5.6 percent in 2008 to 2011, above the target of 4.5 percent. This has influenced expectations: median market forecasts for inflation in 2012 and 2013 are presently at 5.3 percent and 5 percent, respectively.

A Solow-type decomposition can be used to identify what moved Brazil's GDP on the supply side in the long term,⁵ separating out typical policy and performance phases: 1951-80, the golden age of high and relatively stable growth; 1981-94, the high-inflation period, ranging from the foreign debt crisis to the launching of the Real Plan; and the period after price stabilization and the market-friendly reforms of the 1990s.

Both rising employment and a substantial increase in labor productivity contributed to the high growth rates from 1951 to 1980. In turn, roughly two-thirds of the rise in productivity stemmed from the substantial increment in the economy's capital/labor ratio, with the remaining third stemming from total factor productivity (TFP) growth. Remarkably, the accumulation of human capital contributed virtually nothing to the expansion from 1951 to 1980.

The growth slowdown from 1981 to 1994 resulted mostly from a sharp decline in labor productivity growth, which actually turned negative. Employment also expanded more slowly, but this played only a secondary role in reducing GDP growth. The significant decline in TFP, resulting from the inefficiencies generated by high inflation and excessive regulation and state intervention, was the most critical factor behind the fall in labor productivity. Also important, though, was the much slower pace of capital accumulation. The only compensating factor was the more rapid expansion in human capital.

In the post reform period (1995 to 2011), GDP growth accelerated to 3.1 percent per year. The rise in employment remained the main source of output growth, but the improvement *vis-à-vis* the lost decade resulted from higher growth in labor productivity. This, in turn, was due to a small but positive change in TFP, while the rise in human capital stayed constant and the accumulation of capital decelerated. A noteworthy fact in this period was the significant slowdown in population growth, with a more pronounced demographic bonus that allowed per capita GDP to grow 0.7 percentage points more than labor productivity.

Overall, the rise in employment (2.5 percentage points) and labor productivity (2.3 percentage points) contributed in approximately equal shares to annual average GDP growth over those six decades. Going forward growth will need to become more reliant on greater TFP growth and/or faster capital accumulation.

⁵ We assume a Cobb-Douglas function and, like Pinheiro, Bonelli, and Pessoa (2007), adopt a mincerian formulation of human capital, following Bils and Klenow (2000), in which human capital depends on labor force schooling.

Risks and missing growth pillars

Although it is likely that Brazil will sustain relatively good growth performance throughout the current decade, there are reforms that the country must undertake if it wishes to overcome bottlenecks and avoid the most serious risks to growth. In recent years, demand growth has outpaced supply expansion, and this cannot continue indefinitely. Going forward, the country must place greater emphasis on expanding productive capacity. For that, Brazil needs to increase its investment rate and improve its productivity growth as idle capacity has narrowed and the labor supply will expand more slowly in the future.

Growth acceleration in the second half of last decade has come with a number of unbalances. Currency appreciation has compromised the competitiveness of manufacturing, while causing nontradable sectors to expand ahead of the rest of the economy. This is illustrated by the contrasting performance of retail sales and industrial production. Between 2003 and 2011 the former grew by 7.8 percent annually, while the latter expanded at 3.2 percent per year. Between 2005 and 2011, when this discrepancy became more pronounced, the annual average expansion of retail sales was 8.1 percent, compared to 2.4 percent for industrial output. A similar contrast can be seen in the sector breakdown of GDP. The acceleration of GDP in the second half of last decade was due mostly to nontradable sectors such as construction, financial intermediation, commerce, and transportation, whereas manufacturing underwent a significant deceleration.

This unbalanced growth pattern has put pressure on the price of services—and, thus, on inflation—while enlarging the current account deficit. These trends should become more pronounced in the future as the labor market tightens further,⁶ already accounting for the slowdown in growth in recent years. From 2009 to 2011 GDP grew an average 3.3 percent per annum as the government tried to keep inflation from spiraling out of control.

Furthermore, the current account deficit will likely continue to expand, although at a rate that will not bring any major risk to the country’s ability to finance it, unless interest rates in developed countries go back to “normal” levels. The main risk is that commodity prices fall from their current record level, which highlights Brazil’s growing dependence on the performance of the Chinese economy.⁷

A way to show how relevant the external environment has been to Brazil’s recent economic performance—and, thus, to its sustainability—is to look at what happened in the rest of Latin America. Countries that also rely on commodity exports and access to cheap and abundant foreign financing but

⁶ Unemployment in the main metropolitan areas, at 5.7% of the labor force in early 2012, is at an unprecedented low level.

⁷ It is noteworthy that Brazilian exports to China, which in 1999 hardly exceeded US\$500 million, totaled almost US\$45 billion in 2011, with China currently rivaling the United States as Brazil’s main trade partner.

that pursued policies quite different from Brazil's recorded basically the same progress as Brazil in the later part of last decade:

- The average growth of Latin America's GDP rose from 2.1 percent per annum from 1995 to 2002 to 4.1 percent from 2003 to 2010, exactly the same acceleration as in Brazil.
- Unemployment also plummeted in most Latin American countries, in some cases even more than in Brazil. For instance, between 2003 and 2010 the unemployment rate fell by 10.1 percentage points in Uruguay, 9.5 percentage points in Argentina and Venezuela, and 7.2 percentage points in Panama.

The risks facing Brazil may also constitute threats to other countries in the region. Among them are the following (to different degrees of importance among countries): falling commodity prices; capital flight—either due to higher interest rates in developed countries or increased populism, investor insecurity, and ensuing political fears; tight labor markets; public accounts deficits; and rising inflation.

As for Brazil, with the fast demographic transition still under way and unemployment at a record low, employment will contribute less to growth in the future. This will make Brazil's growth more dependent on increases in labor productivity. One alternative is for Brazil to accept another major influx of migrants, as it did one century ago. On the other hand, lower demographic growth will mean that Brazil will be able to improve living standards with a lower rate of GDP growth.

Substantial rises in investment will be necessary to generate the rates of output growth that Brazil desires, on the order of 5 percent per annum. These would require a major increase in savings as well as significant improvements in the business and investment environment. During Brazil's heyday of growth, 1950 to 1980, the country recorded the highest rates of savings and investment in its documented history, especially in the public sector. Since the second half of 1980, however, the investment rate fell to an average level of 17 percent of GDP, just once, in 1994, surpassing 20 percent.

This drop in investment seriously harmed infrastructure. Thus, while in the 1970s Brazil invested 5 percent of GDP in infrastructure, this rate has fallen to slightly over 2 percent since the 1990s. Privatization has had a mixed impact on the sector's performance. It was successful in improving efficiency and, to some extent, in attracting new investment in sectors such as telecommunications, railways, and ports. Still, because large chunks of infrastructure remain under government ownership and private investment has been mostly focused on rehabilitation and marginal expansions, infrastructure services in Brazil lack quality and are expensive.

Brazil invests little, to a large extent, because it is a low savings country. This implies that when investment rates rise, so does the current account deficit. After some time, these deficits, and the accumulated external liabilities they generate, trigger an external financing crisis that interrupts growth and brings investment down, turning the deficits into surpluses. A breakdown of domestic savings in Brazil shows that the main problem lies with the large negative savings of the public sector. Yet,

household savings declined in the second half of last decade as well, not surprisingly at the same time that credit to consumers expanded substantially.

Low savings is, however, only part of the explanation.⁸ Brazil's low rate of investment also results from a combination of low public investment and an adverse business environment. The latter is due to the size, complexity, and inefficiency of the tax burden; the poor quality and instability of economic, environmental, and administrative regulation; the high legal uncertainty; and the lack of proper infrastructure, among other issues.

Surveys with Brazilian firms such as the ones carried out by the World Economic Forum show that the main barriers to doing business in Brazil are not related to a lack of funding, but to the poor quality of the institutions: high taxes, complex and restrictive labor and tax regulations, inefficient public bureaucracy. Together with the rise in unit labor costs in recent years—26 percent higher in 2011 than in 2005, considering a basket of currencies—these factors hinder the competitiveness of Brazilian firms and discourage investment as well as TFP growth. These results highlight the limitations of Brazil's current policy model, based on simultaneous increases in tax revenues and current spending as well as on increasing state intervention in economic activity.

The government's reaction to this set of challenges has been to try to substitute greater intervention and, in particular, public credit for better institutions. Thus, over the past fifteen years BNDES, Brazil's National Development Bank, greatly increased the availability of low-cost financing. Disbursements have increased from 1 percent of GDP in 1995 to a peak of 5 percent of GDP in 2010. At the same time, in 2010/2011 the bank's base interest rates, the TJLP, remained slightly negative in real terms, highlighting that large firms had access to plenty and cheap financing. The impact on investment, however, has been modest. In 2010 the investment rate (19.5 percent of GDP) was only slightly above that of 1995 (18.3 percent of GDP). Thus, the result of this policy was just to quadruple the ratio of BNDES's disbursements to aggregate investment, from 6 percent in 1995 to 26 percent in 2010.⁹

On the other hand, the expansion in public credit—other state-owned banks such as *Caixa Econômica Federal* were also engaged in this strategy, although with smaller funds—had a negative impact on the health and transparency of public accounts. Most of the rise in BNDES's disbursements over this period was financed by loans provided by the National Treasury. These loans carried a lower interest rate than that paid by the Treasury to tap funds in the market, so they involved a significant subsidy. Part of these loans remained in BNDES's balance sheet, generating interest revenues that boosted the bank's profit, and were later transferred back to the government as dividends. Because these are counted as part of

⁸ Indeed, between 2003 and 2006 Brazil was a net savings exporter and, given the willingness of foreign investors to undertake or finance projects in Brazil, it is hard to argue that lack of (external) financing has been a relevant constraint to investment.

⁹ This strategy failed for two main reasons. First, a large part of BNDES funds were used not to boost investment, but (1) to save failed companies from bankruptcy, (2) to finance mergers, or (3) to finance the expansion of local producers abroad. Second, a large part of investment financing went to companies that were not financially constrained—that is, that could have found finance in capital markets.

the primary surplus for which the government follows much-watched targets but the subsidy provided to BNDES is not, this has reduced the transparency of fiscal policy.

Lessons and final remarks

There is more than one interpretation for the recent acceleration in Brazil's GDP growth. The more traditional view ascribes it to the various reforms undertaken since the 1990s, a process that has been remarkable in depth and breadth. Price stabilization in 1994 was the most noteworthy reform, but several others are also worth mentioning such as significant privatization and trade liberalization in the 1990s. In the late 1990s and early 2000s, the reform process, which previously had focused more on microeconomic structure and incentives, shifted to improving macroeconomic institutions. These improvements included the adoption of the Fiscal Responsibility Law, extensive restructuring of the banking sector, and the greater operational independence of the Central Bank, with the implementation of an inflation target regime, among other changes. This process continued under President Lula's first term (2003 to 2006), with a greater focus on institutional reform in the financial sector. But the enthusiasm for reform dwindled continuously in his second term (2007-2010). President Dilma's government (2011 to 2014) has not shown much willingness to embark on major reform projects so far.¹⁰

Brazil's reforms had only a moderate impact on growth, all of it by means of higher TFP growth. Investment rates, in particular, did not increase. Possible explanations for this lackluster result are the unfavorable external environment, marked by several international crises until 2001 and, again, after 2008; the failure to cope with the investment climate variables such as judicial uncertainty and a high and complex tax system; and the time needed for these deep reforms to fully impact the economy.

An alternative view is that economic policy was too "conservative" and failed to provide the required demand-side stimulus. Indeed, there have been plenty of such stimuli in the second half of last decade by way of increased public spending, lower real interest rates, and a major expansion in credit, including subsidized credit by government banks. Of late, there has also been a greater willingness to accommodate a higher rate of inflation.

This shift in policy has coincided with the acceleration of GDP growth, but it is not possible to isolate its effect from the favorable external conditions that have prevailed since then. These conditions include rising export prices—and the associated increased presence of China in world demand—and plenty and cheap external financing. It is unlikely that Brazil would have been able to expand domestic demand so fast had it not been able to rely on a substantial increase in imports as a means to expand supply. Moreover, the fact that other Latin American countries, with different policy models, also improved

¹⁰ The only major exception that has been implemented (i. e., approved by the Brazilian congress) is that of a social security fund for federal public employees in early 2012. But since the fund deals only with new entrants to public service, its impact will only be felt in the long run.

their economic performance in the same period suggests that external factors played a central role in this process.

In our view, Brazil's growth performance from 2006 to 2011 cannot be replicated without reforms that foster a rapid rise in labor productivity, through higher investment, a greater emphasis on quality education, and more rapid TFP growth. The limits of the current model are already being tested by the need to bring inflation down, which will tend to keep the economy growing around a more modest 3.5 percent per annum in the near future. A crisis in China or a return of world liquidity conditions to pre-crisis levels could prove rather challenging to Brazil.

Fiscal consolidation is critical so as to create room to increase government investment, limit the rise in the tax burden, and allow for a noninflationary cut in interest rates. This will become increasingly important in this decade as the demographic transition puts upward pressure on social security and health spending and downward pressure on the savings rate.

Infrastructure is another critical area in which policies need to change. Privatization and public-private partnerships are the best ways to move forward. The government seems to have recognized this, as signaled by the privatization of Brazil's largest airports. But the government generally has acted too little and too late. Moreover, the reforms of the 1990s taught us that privatization without accompanying reforms in regulation, access to financing, and the overall investment climate may have only limited and localized impact on investment. This lesson does not seem to have been learned by government officials.

We fret that the Brazilian government has an insufficient understanding of the imbalances that characterize Brazil's recent growth and of the obstacles the country will face in correcting them while sustaining the desired rate of output expansion. While, as usual, not all signals point in the same direction, the strategy the government has adopted favors increasing state intervention as the means to eliminate growth bottlenecks. These include giving a more prominent role to state-owned enterprises and interfering more directly in the business decisions of private firms, either using the lever of subsidized credit or through moral suasion, as in the substitution of Vale's chief executive officer in 2011. Needless to say, this has also been the practice in other countries of Latin America.

Another risk that has received insufficient attention is that the fast rise in household indebtedness may compromise the health of the banking sector if growth decelerates more sharply and for longer than in 2009. Household debt has risen from 20.2 percent of disposable income in 2005 to 41.3 percent in 2011. This rise has been accommodated by the decline in interest rates and the extension of maturities, which translated into a less significant increase in the share of income committed to serving these debts. But will these borrowing conditions continue to improve if labor market conditions deteriorate and the inflow of foreign capital contracts? A related threat is credit default, as shown by the recent rise in household debt payment delays.

There is also much concern about the loss of Brazilian manufacturing competitiveness, with the view that Brazil may be undergoing a severe deindustrialization process. This stems from three factors: the significant appreciation of the real, which was instrumental in helping to control inflation but caused unit labor costs to rise substantially; the poor business environment in Brazil; and the aggressive commercial strategy of China in its attempt to compensate for the decline in exports to Europe and the United States with greater exports to emerging economies.

Brazil's government has reacted by using two instruments. First, it has tried to prevent the real from strengthening too much by aggressively buying foreign currencies in the domestic market and changing regulations concerning exchange rate derivatives. Second, it has applied countervailing duties on some imports, notably—but not only—from China. To some extent, the reluctance of the Central Bank to raise interest rates to bring inflation down reflects, in addition to concerns with growth, the fear that this would further attract foreign capital inflows. Obviously, this does not explain why fiscal policy has also been so expansionist. Another accompanying feature is increased protectionism, often disguised under the cover of industrial policies, to defend manufacturing from the overvalued real exchange rate.

We fear that some wrong lessons may be drawn from Brazil's recent growth experience. The importance of the 1990s market reforms and macroeconomic discipline for a more sound economy has been downplayed more and more. The trend towards greater state intervention, or state capitalism, and the reinstatement of trade barriers are evident signs of this. So is the greater tolerance of inflation and the erosion of the transparency of fiscal accounts. Although Brazil has not gone as far in reversing the reforms of the 1990s as some of its neighbors did, nor do we think it will, the direction of change is similar. A related threat is the reemergence of populism in the region, a development that often comes with increased state intervention in the economic realm.

References

Barro, Robert and Jong-Wha Lee. "A New Data Set of Educational Attainment in the World, 1950-2010." NBER Working Paper No. 15902, April 2010.

Bils, Mark and Peter Klenow. "Does Schooling Cause Growth?" *American Economic Review* 90, no. 5, December 2000.

Giambiagi, Fabio and Armando Castelar Pinheiro. *Além da Euforia: Riscos e Lacunas do Modelo de Desenvolvimento Brasileiro* (Elsevier, 2012).

Pinheiro, Armando Castelar, Regis Bonelli, and Samuel Pessôa. "Pro- and Anti-Market Reforms in Democratic Brazil." In L. Rojas-Suarez (ed.), *Growing Pains in Latin America*, Centre for Global Development.

World Economic Forum, *Global Competitiveness Report 2011-2012*, 2011.