CHAPTER 11

BRAZIL'S MACROECONOMIC POLICY INSTITUTIONS, QUASI-STAGNATION, AND THE INTEREST RATE–EXCHANGE RATE TRAP

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11.1. The Conundrum of Ongoing Quasi-Stagnation

In a 2007 book, I argued that the Brazilian economy had been deindustrializing and quasi-stagnant since 1981, due, first, to the major foreign debt crisis and high inflation, and second, from the early 1990s on, to a macroeconomic trap of high interest rates and an overvalued currency over the long term, which discouraged investment and hampered economic growth.[1] However, at the time of the book's publication it seemed to make no sense, in light of the satisfactory growth rates between 2006 and 2010, which were driven by the large increase in the prices of exported commodities (the "China effect"). At that time it was common for distinguished Brazilian or foreign economists, whether liberal or developmental, and for representatives of the national and international financial system to declare that Brazil had "resumed growth," was one of the BRICs (Brazil, Russia, India, and China), and was destined for greatness.

However, the country was benefiting only from a boom in commodities, as the low growth rates between 2011 and 2014 and a major recession in 2015–2016 soon confirmed. In fact, the Brazilian economy has been quasi-stagnant since 1981. The average rate of per capita gross domestic product (GDP) growth between 1981 and 2014 was 1.2% per annum; if we exclude an exceptionally negative period (the 1980s, when the country

stagnated due to a major financial crisis) and the commodity boom (2006–2010), the rate has been even lower: 0.78% per annum.

What is the explanation for deindustrialization and these low growth rates, which, for a developing country aiming to "catch up," represent quasi-stagnation? Why did an economy that between 1950 and 1980 grew at a per capita rate of 4.5% per year then grow so slowly from 1981?[2] The reason for stagnation in the 1980s is well known: it was the foreign debt crisis, which resulted from the policy of growth with foreign indebtedness ("foreign savings") adopted by the Geisel government (1974–1979), and from the high and inertial inflation this crisis unleashed, insofar as the government was compelled to undertake two maxi-devaluations (1981 and 1983) in an economy that had been formally indexed from 1964.[3] The oft-heard alternative explanation, that the exhaustion of the import-substitution model explains the stagnation, has little to support it and arguably is used more to make a point with ideological intent. That model was exhausted as early as the start of the 1960s; it is true that import tariffs remained high after the model was abandoned, but the important point is that in 1967 Brazil began a highly successful period of growth led by the export of manufactured goods, on which I offer some numbers in the following.

But why, after the 1994 *Real* Plan had brought inflation under control, did the Brazilian economy continue to grow so slowly? Why did the investment and savings rate continue to be so low? To answer these questions we need significant *new historical facts*. Four simple and decisive new facts meet this need: (1) the fall of public savings with the debt crisis, (2) the exhaustion of an unlimited supply of labor due to a fall in fertility rates, (3) the 1990 trade liberalization that dismantled the mechanism that neutralized the Dutch disease, and (4) the extremely high rates of interest under the *Real* Plan. These four historical facts reduced both public and private investment and pushed the Brazilian economy into long-term quasi-stagnation.

Before the major recession of 2015–2016 there was already some uneasiness among the Brazilian economic and political elites, and with good reason: an appreciated exchange rate except during financial crises, when it would depreciate; the basic interest rate set by the Central Bank at a very high level; unsatisfactory profit rates in manufacturing industry; premature deindustrialization; low savings and investment rates; and low growth rates, far below what would be needed for "catchup." What is the explanation for these elites' inability to solve these problems? Why might they be reluctant to frame a development project starting from the aim of overcoming the macroeconomic trap of high interest rates and an overvalued currency? I wish to suggest that this is essentially for two fundamental reasons. The first is that the elites, along with the general public, have lost the *idea of nation*; this leads them to be unduly swayed by the recommendations and pressures of wealthy countries, without subjecting these views to critical interrogation. The second is that Brazilian society as a whole is strongly characterized by a preference for *immediate consumption*. More specifically, politicians, businessmen, economists, and economic journalists—whether liberal or developmental, left or right—refuse to lower the basic interest rate on the justification that it is required to control inflation, and refuse to depreciate the exchange rate because this will cause, in the short term, a

temporary reduction in revenues and an increase in inflation. Moreover, such leaders have proved unable to increase the state's investment capacity—whether because those on the right see public savings and investments as unnecessary, if not dangerous, or because both the left and the right prefer to increase social expenditures that produce electoral dividends.

Brazilians have been subject to several economic disappointments since the 1985 transition to democracy. The first came in the José Sarney administration (1985–1989), with the collapse of the Cruzado Plan in 1987, a major setback that demonstrated that the opposition that had fought and won over the military regime lacked a project to promote growth and development. In its place was an unsophisticated Keynesianism, characterized by fiscal and exchange rate populism (i.e., high fiscal and current account deficits). Besides an economic crisis, the collapse of the Cruzado Plan also caused the demoralization of the politicians who had led the transition to democracy, and thus paved the way for the election of a young and unknown politician, Fernando Collor de Mello. Collor, following the global pressures of the time (the Washington Consensus), swiftly switched the economic policy regime from a developmental regime (in place in various forms since 1930, first under Getúlio Vargas and later under the military) to a liberal or neoliberal one, through the opening of trade and finance.

In 1994, following the impeachment of Collor and subsequent assumption of the presidency by Itamar Franco, the *Real* Plan—a heterodox stabilization plan based on the theory of inertial inflation—succeeded in controlling inflation. However, this major success was followed by a second disappointment, during the Fernando Henrique Cardoso administration (1995–2002). After the Brady Plan (1990) had resolved the financial crisis of the 1980s, and the *Real* Plan (1994) had very effectively controlled high inflation, many expected that the economy would commence rapid growth. What came instead were the second and third phases of the installation of the liberal economic policy regime; in 1995, with the privatization and denationalization of monopolist public services, and in 1999, with the adoption of a liberal-orthodox macroeconomic system where the basic interest rate was kept very high to attract capital. At the same time, the crawling peg system was abandoned, while the exchange rate floated and remained highly overvalued, with state expenditures increasing substantially between 1995 and 1998. The outcome of this exchange rate and fiscal populism was a major financial crisis—a currency crisis—at the turn of 1999, while growth rates were mediocre.[4]

The third disappointment came during the government of the Partido dos Trabalhadores (PT), a social-democratic political party that was in office from January 2003 to April 2016. By criticizing neoliberal policymaking, the PT created an opportunity for economic development, but this did not materialize. The PT—which had at some points defined itself as "social developmental"[5]—was relatively successful with its social commitment, but not with its developmental ambition. It was unable to change the liberal policy regime, or to form a developmental class coalition associating the industrial bourgeoisie with workers and the public bureaucracy, and, thus, it failed to lead the country into resumed growth (Boito Jr. 2012; Boito Jr. and Berringer 2016; Bresser-Pereira 2017; Bresser-Pereira and Diniz 2016). The PT's great achievement was to secure

social inclusion, which occurred due to the substantial increase in the minimum wage and the expansion of cash transfers to the poor, allowing a significant portion of the population access to mass consumption.

In the 13 years that the PT was in office, the liberal policy regime was not altered. Lula (2003–2010) did not attempt to; Dilma Rousseff (2011–2016) tried by sharply reducing the interest rate in July 2011, but a slight rise in inflation and a large protest from rentiers and financiers—the major beneficiaries of the neoliberal policy framework—led her to stop. Thus, the basic interest rate returned to 6%–7% yearly in real terms, and the long-term overvaluation of the exchange rate was not resolved; on the contrary, it was exacerbated. In January 2003 the Lula administration inherited a highly depreciated exchange rate from the previous government, R$5.30 per dollar (at third quarter 2016 prices)[6]—a consequence of a second currency crisis in the Cardoso administration. Benefiting from such a highly devaluated *real*, the Lula administration allowed the national currency to appreciate greatly during his eight years in office, reaching R$2.20 per dollar at the end of 2010. Dilma Rousseff's successor government achieved some real devaluation, but the *real* remained highly overvalued. Figure 11.1 shows the last full exchange rate cycle (2002–2014), where the *real* remains overvalued for seven years, between the second semester of 2007 and the first semester of 2014. As a consequence, the manufacturing industry first stopped exporting, and second, lost the domestic market to foreign competitors (i.e., deindustrialization—see Figure 11.2), heavily indebting manufacturing companies. January 2015 saw the outbreak of a new financial crisis and a major recession—this time not a currency crisis, but a financial crisis of manufacturing enterprises.

Lula's administration saw five years of satisfactory growth, driven by a rise in the price of commodity exports (a typical commodity boom), which, combined with

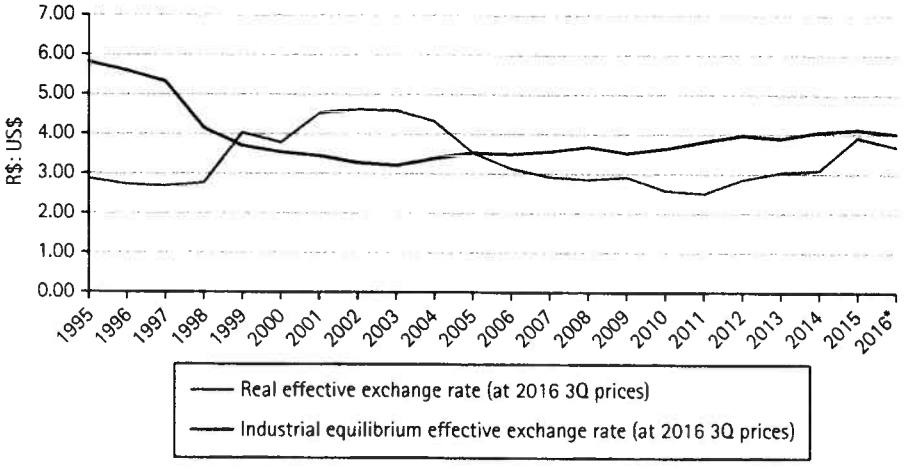

FIGURE 11.1. Real exchange rate and the industrial equilibrium, 1996–2016.

Note: 2005 = 100.

Source: Center for New Developmentalism/EESP-FGV.

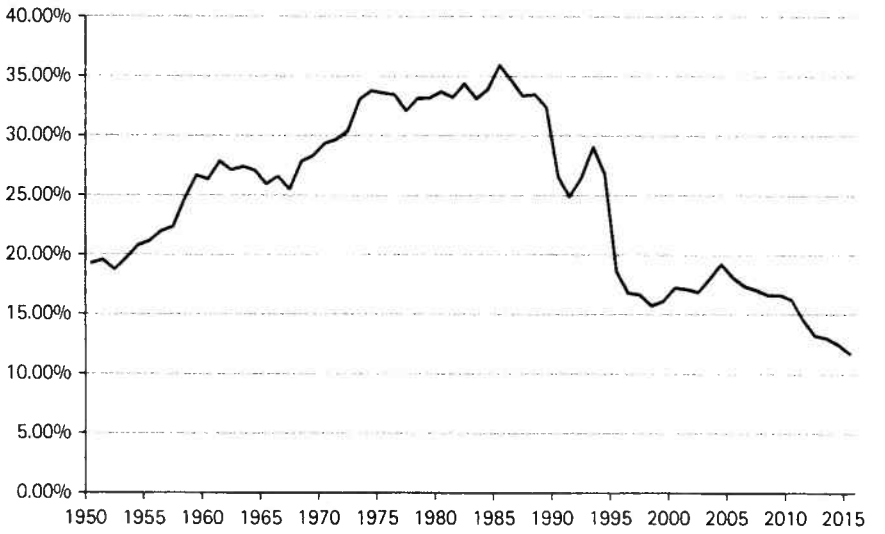

FIGURE 11.2. Share of the manufacturing industry in GDP, 1947–2015.

Source: IBGE.

much-needed distribution policies, expanded the domestic market. This involved a trade-off for the manufacturing industry: it lost foreign markets due to the appreciation of the *real*, but gained a stronger domestic market. This was hailed as an achievement by the developmental defenders of the wage-led strategy. But this kind of strategy only works when the country is closed to imports; it is of the import-substitution model.

Since the Brazilian economy is an open economy, which is supposed to be competitively integrated into global markets, this trade-off was short-lived. Within around three years, importers of manufactured goods organized themselves, and imported goods flooded the domestic market; as a result, the Brazilian manufacturing industry lost its domestic market, accelerating the deindustrialization process (on the deindustrialization of Brazil, see Bresser-Pereira 2009; Nassif 2011; Oreiro and Feijó 2010). Figure 11.3 demonstrates indirectly this leakage of domestic markets to imports by comparing physical production of the manufacturing industry and retail sales. Figure 11.4 shows how exports of manufactured goods stagnated while exports of commodities continued to increase.

When Dilma Rousseff assumed the presidency in January 2013, with the real exchange rate at R$2.50 per dollar (third quarter 2016 prices), she faced an impossible task. She did not have power to depreciate the *real* by more than 50%—to R$3.80, the competitive equilibrium per dollar at that time. All that was achieved was a 20% depreciation in the first two years of the Rousseff administration, while the Central Bank lowered the interest rate substantially. However, manufacturing enterprises did not start investing. The interest rate required a high expected rate to make investments viable, but the overvalued national currency made local manufacturing firms non-competitive, their expected rate of profit remaining very low, if not negative. The low rates of growth

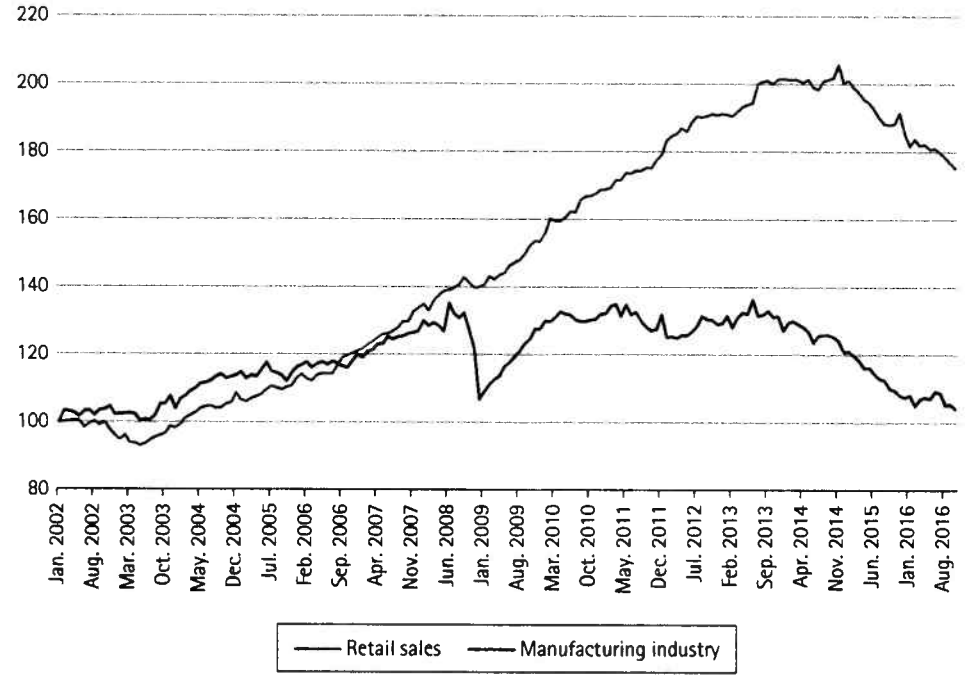

FIGURE 11.3. Physical production of the manufacturing industry and retail sales, 2002–2012.

Note: January 2002 = 100.

Source: IBGE—Monthly Industrial Survey and Monthly Retail Survey. Observ: seasonal adjustment.

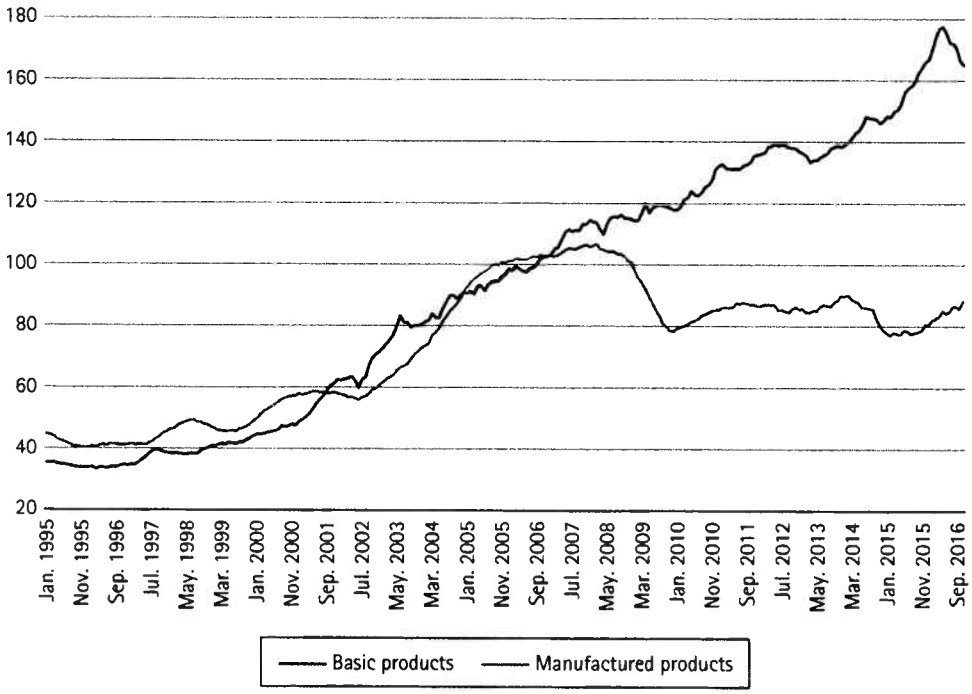

FIGURE 11.4. Exports of manufactured goods against exports of basic products (quantum), 1995–2016.

Note: "Basic products" include primary goods and the output of the extractive industry.

Source: Funcex.

surprised the government, and the president made a last-resort decision that amounted to a major mistake: she adopted an "industrial policy" involving a substantial reduction in taxes for a large number of manufacturing firms.[7] Once again, industrial enterprises did not resume investing, because an industrial policy is no substitute for a competitive exchange rate and a reasonable interest rate. The country remained caged in the high interest/overvalued currency trap; manufacturing business continued without net (of interest) expected profits. Besides, the governing party became involved in the major *Mensalão* corruption scandal. Thus, industrial entrepreneurs, who since 2003 had been called on by Lula and Dilma to form a developmental class coalition with workers, gave up and opened the way for the liberal hegemony of the rentier capitalists, including the traditional middle class and the financiers who manage the rentiers' wealth.

Despite the opposition of the economic elites, Dilma Rousseff was re-elected at the end of 2014 with support clustered socioeconomically among the poor and geographically in the Northeast region. However, when she took office in January 2015, the economy was entering a recession, while inflation had risen to 8% a year, the primary surplus had deteriorated from 2% of GDP positive in 2013 to 0.6% negative in 2014, and the current account deficit reached 4.6% of GDP.[8] The recession was triggered by falls in the international prices of the two major commodity exports (soybeans and iron ore) in the second semester of 2014, and, principally, by a Minskyan financial crisis caused by the fall in profits and the high indebtedness of the manufacturing industry after years of a highly overvalued exchange rate and high interest rates.[9] Moreover, a second major scandal, this time involving involving Petrobrás, exploded at the end of 2014. Consequently, on assuming office for the second time, in January 2015, President Dilma faced an acute economic and political crisis—a generalized loss of confidence. This was swiftly exacerbated by the failure of the liberal economists who entered the Finance Ministry at that point to appreciate the full depth of the crisis, assuming that it was merely a fiscal problem, and engaging in a major fiscal adjustment while the economy faced a deep recession. In fact, the increase in expenditures and the tax exemptions in 2013 and 2014, coupled with major drops in GDP (3.8% in 2015 and around 3.5% in 2016) and the subsequent fall in state revenues led Brazil into a large primary deficit. As a result of both the crisis and her own lack of political savvy, President Rousseff was impeached in April 2016. The radically liberal administration that replaced her failed—as its developmental predecessor had—to understand the real origin of the quasi-stagnation that Brazil is facing from the *Real* Plan, namely the interest and exchange rate trap. Instead, it identified the fiscal problem as being the *cause* of the recession, when it was essentially its consequence.

11.2. Four New Facts

Setting aside the short-term adjustment problem faced by the Brazilian economy, there are a number of important longer-term questions. What are the new historical

facts that keep the Brazilian economy growing so poorly—that is, quasi-stagnant? Why do financial advisors, whose forecasts are consolidated in the Focus Report of the Central Bank, expect GDP growth up to 2018 to reach a maximum of 2% per year? Of the four explanations that are most often proposed—insufficient household savings, a low level of basic education, lack of strong institutions, and lack of investment in infrastructure—only the last is useful. These problems are long-standing; they are always being confronted and never satisfactorily resolved, but they haven't held Brazil back from strong growth in the past. To explain this quasi-stagnation, then, I propose four new historical facts: (1) the reduction in public savings and, therefore, the lessening of the state's capacity to invest in infrastructure since 1980; (2) the end of the unlimited supply of labor; (3) a very high (although decreasing) interest rate level since the *Real* Plan; and, last and most important, (4) the large competitive disadvantage that Brazilian manufacturing businesses have faced since the trade opening in 1990, an episode that involved the dismantling of the anti-Dutch disease mechanism. These four factors caused the fall in both public and private investment, and explain why the historical per capita growth rate from 1990 onward has been only a quarter of the rate between 1950 and 1980. This section considers these in turn.

11.2.1. Public Savings

As shown in Table 11.1, public savings reached high levels in the 1970s (an average of 3.9% of GDP), but plummeted in the 1980s and have remained negative since then; in the first decade of the 2000s they were negative by 2.8% of GDP. The fall in public savings originates from two policies pursued by the Geisel government in the second half of the 1970s: the use of the prices of state-owned enterprises to control inflation, and the decision to grow with current account deficits which would be financed by "foreign savings."

Table 11.1 Public Savings and Investments in Decades as Percentage of GDP (Averages from the 1970s to the 2000s)

	Public Savings	Investments
1970s	3.9	21.4
1980s	-1.5	22.1
1990s	-0.8	18.2
2000s	-2.8	17.1

Source: Elaborated by the author from statistics provided by IBGE.

On the first point, from the start of the military regime in 1964, the profits of state-owned enterprises had been used to finance government investment in infrastructure;[10] however, 10 year later, using their prices to control inflation was a serious mistake, similar to the use of the exchange rate as an anchor to control inflation. This decision reduced the profits of state-owned enterprises, and public savings fell.

On the second point, the first OPEC oil shock in 1973 led all rich countries into recession. On taking office in the following year, President Geisel declared that Brazil would nevertheless continue to grow in accordance with his Second National Development Plan. This goal was pursued by accumulating current account deficits and making the Brazilian economy indebted in foreign currency (Bonelli and Malan 1976; Bresser-Pereira 1990; Coes 1995), a self-defeating policy since it appreciates the national currency, involves substitution of foreign for domestic savings, and leads a country into recurrent currency crises. The average growth rate, which during the 1968–1973 Brazilian "miracle" had been 11.3% yearly, fell to a still high rate, an average of 6.9% a year between 1974 and 1979, but at the cost of a high increase in foreign indebtedness (the foreign debt rose from US$6.4 billion in 1973 to nearly US$54 billion in 1980), which led the country into a major financial crisis and the stagnation of per capita income in the 1980s. With the second oil shock, in 1979, the United States dramatically raised interest rates, and countries indebted in foreign currency, including Brazil, found themselves in big trouble. The state was forced to bail out businesses that were highly indebted in foreign currency, which represented a second blow to the fiscal health of the country, besides the loss of revenues derived from state-owned enterprises.

As a consequence of these two mistakes, public savings became negative and the state's capacity to invest declined, while Brazil faced for the next 10 years a severe currency crisis. From this moment on, the country has had serious difficulties financing required infrastructure projects, a difficulty yet to be resolved.

Public savings recovered somewhat in the 1990s, but then in the first decade of the 2000s deteriorated further, for several reasons: first, the Brazilian government, captive to neoliberal thinking in the 1990s, privatized monopolistic state-owned enterprises, whose profits had financed investment; second, since the 1985 transition to democracy, governments had given priority to social spending to the detriment of investment in infrastructure; and third, the engineering capacity that a developmental state must have to develop infrastructure projects was seriously damaged by the many years of low public investment. In light of the extreme economic inequality that prevailed at the close of the dictatorship, it is perhaps understandable that emphasis was placed on the social state over the developmental state, but the change went too far. The tax burden increased from 22% of GDP in 1985 to 36% by 2014, but, of this 14 percentage-point increase, around 11 percentage points were accounted for by the social area (education, health care, social security, social assistance, and culture), and the rest in financing the high interest rates that the treasury pays to rentiers. Social spending is a fair and highly efficient way of increasing indirect incomes. In fact, this increase in social spending was the result of a momentous political agreement—the 1977 Democratic Popular Pact—that, besides calling for democracy, was committed to reducing social inequality. The fact is,

however, that public investment lost the priority that it had had in the 1970s, and this is one reason for the subsequently lower investment and growth rates.

11.2.2. The End of "Unlimited Labor"

The second new fact that had a negative impact on investment and growth was demographic: the exhaustion of the "unlimited supply of labor" that exists in developing countries. According to the classical model of Lewis (1954), this depresses wages but keeps them sufficiently high to allow for the transfer of labor from agriculture to the manufacturing sector, which can pay low wages, while the productivity of the country increases. As enterprises benefit from low wages and plow the resulting profits into investment and technical progress, economic growth accelerates. This simple model explains some of the industrialization in developing countries, including Brazil. But fertility rates fell strongly in Brazil after the 1980s, resulting in a strong decrease in the labor supply in the early 2000s (when the country reached the "Lewis turning point"). This was the main cause of the sharp rise in formal employment that began at that moment, and is one of the reasons why wages began to increase faster than productivity in several industries.

11.2.3. The Increase in Real Interest Rates

The third new fact that explains Brazil's long-term quasi-stagnation is an increase in real interest rates, which were very low if not negative in the 1970s, but became extremely high from the *Real* Plan on. It is true that the level of interest rates has been falling throughout the period since 1994, but it is still very high; in June 2015, it was 6% a year in real terms.

What is the explanation for this? A common response states that high interest rates are required to control inflation. Certainly, when inflation is rising, an increase in the interest rate is the first thing that should be done. But monetary policy need not fluctuate around a 5% real rate of interest, as it currently does in Brazil; it can proceed around a midpoint of a 1%–2% real rate of interest. The high interest rates in Brazil reflect the political power of rentier capitalists and financiers, who have a *seigniorage* of around 5%–6% over GDP. Since the collapse of the Cruzado Plan (1987), rentier capitalists and financiers have become very powerful in Brazil, and their influence only increases insofar as large numbers of industrialists sell their businesses to multinationals and become rentiers. When, in 2011, the Central Bank substantially lowered the basic interest rate, President Dilma Rousseff gained the support of the manufacturing industry. But the political power of industrialists has long been waning in Brazil, due not only to the process of deindustrialization, but also to the process of denationalization: since the 1990s the number of manufacturing businesses sold to multinationals has consistently increased.

11.2.4. The Dismantling of the Anti-Dutch Disease Mechanism

The fourth new historical fact explaining Brazil's quasi-stagnation is the dismantling of the mechanism for neutralizing the "Dutch disease." This occurred in 1990, within the framework of the trade liberalization then realized. This was a major mistake. In the 1990s Brazil no longer had an "infant" manufacturing industry, and could open its economy and become more competitive. However, it still should have been important not to ignore the threat of Dutch disease—a competitive disadvantage for the non-commodity tradable goods sector—which is the major cause of the long-term overvaluation of the Brazilian currency. The mechanism that neutralized the Dutch disease was built into Brazil's foreign trade system. In 1990, Brazil's average import tariff was reduced from 45% to 12% of GDP, and the subsidy to exports of manufactured goods, also 45% of GDP, was eliminated. Through this action, the government was not only opening the economy; it was also dismantling the mechanism that neutralized the Dutch disease, unknowingly creating a major competitive disadvantage for Brazilian manufacturing firms. For 60 years from the 1930s, the developmental economists who managed economic policy somehow instinctively or intuitively neutralized the Dutch disease without fully grasping the concept. Multiple exchange rate regimes, or high import tariffs combined or not with export subsidies for manufactured goods, did this job; in one stroke this neutralization, wrongly understood as protectionism, was discarded, giving rise to a major competitive disadvantage for Brazilian firms.

The Dutch disease can be defined as a permanent appreciation of the exchange rate and, therefore, as a competitive disadvantage caused by the export of commodities using abundant and cheap natural resources; these commodities can be exported profitably at a significantly more appreciated exchange rate than the rate that would be necessary to make competitive both existing and potential producers of tradable goods and services that use world state-of-the-art technology. The commodities that generate the Dutch disease set the "current equilibrium"—the value of foreign currency that guarantees the intertemporal equilibrium of the current account—while the value required to render other competent tradable businesses competitive is the "industrial equilibrium." The greater the difference between these two equilibriums, the more severe will be the Dutch disease. In oil-exporting countries like Venezuela or Saudi Arabia, where the cost of production is very low, the disease is very serious, while in countries like Brazil or Argentina the disease is moderate but enough to cause deindustrialization and—more than that—to *prevent* the vast majority of potential industrial projects in Brazil from being realized.

The takeoff of industrialization in Brazil in the 1930s benefited from the depreciation of the national currency caused by the Great Depression and the long-term fall in coffee prices. From the early 1950s, the Dutch disease was neutralized by a disguised tax on commodity exports, mainly coffee at that time. Originally, this export tax was embedded in multiple exchange rate regimes, involving a more appreciated rate for exporters of commodities. What can be called the "Delfim Netto model"—after the

minister of finance during the "miracle"—is the mechanism that, from 1967 to 1990, neutralized the Dutch disease. It was embodied in the Brazilian foreign trade system of high import tariffs and substantial subsidies for exports of manufactured goods. The coffee exporters knew that this was a disguised export tax and called it "exchange rate confiscation" (*confisco cambial*), although ultimately they paid nothing because they recovered their tax payments through the depreciation of the currency. It was a large tax, amounting to 31% of commodity prices—more than is required today to neutralize the Dutch disease. With this mechanism, the competent manufacturing enterprises that Brazil was building became competitive, and exports of manufactured goods soared; they accounted for 6% of total exports in 1965 and for 62% in 1991. Today they represent only 36% of Brazilian exports.

11.3. The Theory

The last two "new historical facts" that explain the low investment and growth rates in Brazil since the early 1990s (the high level of interest rates and the non-neutralization of the Dutch disease) may be more clearly understood in light of the "new developmentalism" framework of macroeconomics developed in the literature since around 2003 (Bresser-Pereira 2010, 2016; Bresser-Pereira, Marconi, and Oreiro 2014), which focuses on the exchange rate and the current account, instead of on the interest rate and the budget deficit.

In short, according to this view, economic development depends on investment, which depends on the expected profit rate and the interest rate; and the expected profit rate, in turn, depends on the exchange rate. The theoretical novelty in this understanding is the exchange rate, which is not considered either in Keynesian or neoclassical macroeconomics, because both assume that it is volatile but floats around the equilibrium exchange rate. New developmentalism drops this assumption and claims that in developing countries the exchange rate tends to be overvalued in the long term insofar as it exhibits tendencies to cyclical and chronic overvaluation. Thus, when businesses evaluate their investment opportunities, they take into consideration the ongoing exchange rate, which most of the time is overvalued, and conclude that the investment will not be competitive even if they utilize, or plan to utilize, world-leading technology.

The competitiveness of a country depends on the evolution of this equilibrium exchange rate, which, for its part, depends on the comparative index of unit labor costs, that is, the wage rate over the productivity of the country compared with the unit labor cost of a basket of countries. When this index rises, the equilibrium exchange rate goes up and the national currency depreciates so that its enterprises may remain competitive; when it falls, the exchange rate appreciates with no harm to local businesses. Whenever the exchange rate does comply with this expected market behavior, only diverging from it in the short term (the volatility problem of the exchange rate), it should not be a cause for concern. However, this is not true when the exchange rate remains overvalued in the

long term, as we suppose it does in developing countries due to the cyclical and chronic tendencies of exchange rates observed in such countries. In this case, investment will cease, and the economy will immediately face deindustrialization and low rates of growth, if not stagnation. There are four causes for this, one structural cause—a non-neutralized Dutch disease—and three habitual policy causes: the policy of growth with current account deficits or "foreign savings," the use of an exchange rate as an anchor to control inflation, and a central bank that conducts its monetary policy around a high level of interest rate. While the Dutch disease pulls the market exchange rate to the current equilibrium, these other three policies—widely used in developing countries other than those East Asian countries that rank as competent developmental states—explain the current account deficits. These policies, together with expansive and irresponsible fiscal policies, cause not only low investment and growth rates, but also lead the country into increasing indebtedness in foreign currency and into recurrent balance of payment crises.

The policy of growth with current account deficits ("foreign savings") to be financed by foreign loans or the investment of multinational companies automatically appreciates the exchange rate. Since there is a direct relationship between current account deficits and the exchange rate—the higher the current account deficit, the more appreciated the exchange rate, and vice versa—this policy appreciates the exchange rate, discourages domestic investment, and involves a high rate of substitution of foreign for domestic savings. Foreign investment does not add to, but rather replaces, domestic investment, except when the country is growing very fast and there is already a very high expected rate of profit.[11] For the case of Brazil, see Figure 11.5.[12] Meanwhile, the exchange

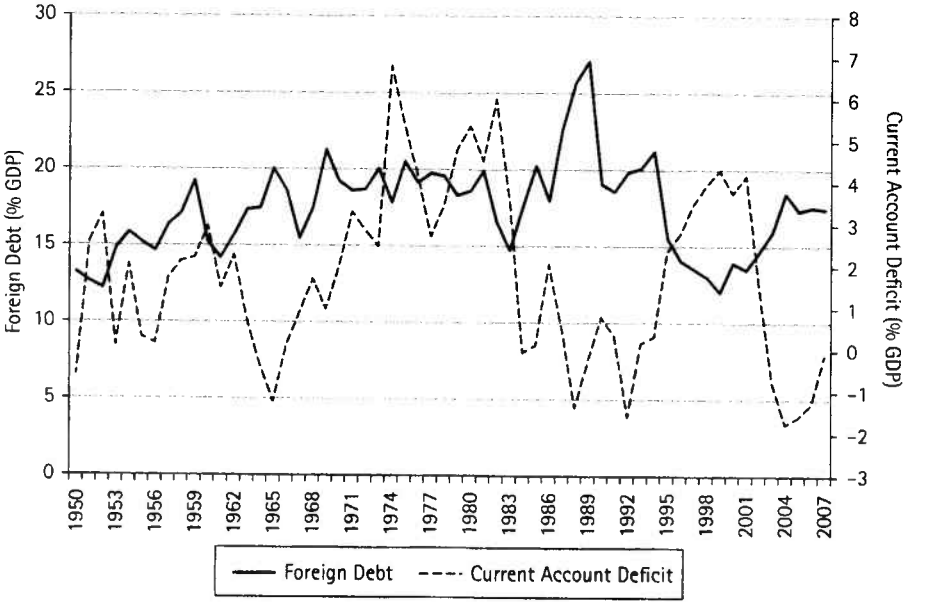

FIGURE 11.5. Current account deficits and foreign debt 1950–2007.

Source: CBB (2010); Bresser-Pereira, Gala, and Araújo (2015).

rate anchor policy means maintaining a relatively fixed exchange rate while inflation continues to occur, causing inflation to fall. This is a perverse way of fighting the symptomatic evil that inflation is, since it does so at the cost of distorting the most strategic price that exists in a national economy, namely the exchange rate. As for the high level of the interest rate, that benefits only the rentiers and financiers, typically associated with foreign interests.

Large fiscal deficits are an expression of fiscal populism and unsophisticated Keynesianism, not of liberal orthodoxy; instead, large current account deficits associated with a long-term appreciation of the exchange rate are a manifestation of exchange-rate populism, whether developmental or orthodox.[13] These two forms of economic populism have always been present in Brazil since the transition to democracy. Exchange-rate populism was present in the Fernando Henrique Cardoso administration, was even more intense under Lula, and recurred in the final two years of the Dilma administration. Fiscal populism was absent from 1999 to 2013, but returned in 2014.

11.4. Recession

After seven years of overvaluation of the *real* between 2007 and 2014, the last exchange rate cycle ended in the second semester of 2014. Between 2015 and 2016, income per capita has fallen 9.0% and unemployment achieved an all-time high of 12%. A sharp fall in the prices of the two main export commodities acted as a trigger for the recession. As the model of the tendency to the cyclical and chronic overvaluation of the exchange rate predicts, after a long-term overappreciation, the cycle ends with a financial crisis and a sharp devaluation of the national money. This had happened in 1999–2002, and was repeated in 2014, but the financial crisis was not a currency crisis, as usually happens in developing countries, nor a banking crisis like the 2008 crisis, but a financial crisis of business enterprises. It was not a currency crisis, because the country had accumulated huge and expensive reserves in the boom years; it was not a banking crisis, because banks were monopolist, were included in favorable government policies, and were well managed. It was a crisis of the manufacturing industry because for seven years it confronted an adverse exchange rate, its profit rates fell sharply, and manufacturing firms became heavily indebted, paying a very high interest rate. Thus, the causes of the recession were just an aggravation of the causes of the long-term quasi-stagnation.

In the last long seven years in which the *real* was highly overvalued (2007–2014), the average real effective exchange rate was R$2.80 per dollar, while the industrial equilibrium rose from R$3.80 to 4.00 per dollar due to the deterioration of the unit labor cost in comparison with key competitors. Considering an average R$3.92 per dollar industrial equilibrium between 2007 and 2014, the *real* would have required a 40% devaluation to become competitive. Such a huge overvaluation of the currency was not just the consequence of the Dutch disease, but also of the three habitual policies that appreciate the exchange rate of developing countries: the practice of a high level of the real

interest rate around which the central bank conducts its monetary policy; the growth-cum-foreign indebtedness ("savings") policy; and the use of an exchange rate anchor to control inflation. The depreciation occurred only in the second semester of 2014, but the international market was pressing in that direction before that. The depreciation did not happen before because the Central Bank had bought back reserves (actually, swaps) from August 2013 to avoid it and the consequent increase of the rate of inflation.

In February 2017 the real exchange rate was around R$3.10 per dollar, significantly below the industrial or competitive equilibrium, which is around R$4.00 per dollar.[14] At the height of the financial crisis, in September 2015, the exchange rate peaked at R$4.40 per dollar, but soon, confirming the tendency to cyclical and chronic overvaluations of the exchange rate, it re-appreciated to R$3.10 per dollar, owing to commodity prices' partial recovery and the lessening of the fear of a balance of payment crisis. It would have depreciated more, had it not been for the real basic interest rate, which, despite the recession, is around 8% a year, reflecting the power of rentiers and financiers in Brazil.

11.5. Long-Term Solution

The present major recession will end sooner or later. Conversely, the long-term quasi-stagnation requires a long-term solution, which necessitates the recovery of the fiscal equilibrium, lost from 2014, and overcoming the tendency to cyclical and chronic overvaluation of the exchange rate, which involves the neutralization of the Dutch disease and the rejection of the three habitual policies that lead to the overvaluation of the exchange rate. The severity of the Dutch disease in Brazil (the difference between the industrial and the current equilibrium) is difficult to measure, because the estimations of the industrial equilibrium are only approximations, and because a series for the current equilibrium is not available. We can say, at least, that the situation is not as severe as those in Venezuela or Saudi Arabia. Research on the value of the industrial equilibrium suggests that the average severity of the Dutch disease in Brazil is around 15%, ranging from 8% to 25% in accordance with the variation of the international prices of the commodities that the country exports.[15] When the price rises, the current equilibrium goes down and the Dutch disease worsens; the reverse happens when commodity prices fall, as happened in the last quarter of 2014, when the Dutch disease almost disappeared.

The solution to the problem—the correct way of neutralizing the Dutch disease—is to levy a variable export tax on the commodities that originate the disease, equal to the severity of the disease. As this tax increases the cost of production, exporters will require a more depreciated exchange rate, and since, given the foreign demand, it is the supply of the commodities (not of manufactured goods) that determines the exchange rate, the supply curve will shift to the left as the cost plus reasonable profit fall, and the exchange rate will duly depreciate. If the tax is equal to the severity of the disease, the current equilibrium will become equal to the industrial equilibrium, and the neutralization will

be complete. In consequence, all technically competitive tradable industries (not only commodities benefiting from Ricardian rents) will be economically competitive.

To explain the chronic overvaluation of the *real* we should consider, besides the Dutch disease, the three habitual policies that appreciate it: the growth with current account deficits policy; the use of the exchange rate as an anchor to control inflation; and the high level of the interest around which the Central Bank conducts its monetary policy. The weight of this second type of cause may be huge. When, between 2007 and 2014, the average overvaluation was around 60%, we can estimate that the Dutch disease accounted for one-third of this difference, while the three habitual policies accounted for the remaining two-thirds.

Such long-term overvaluation of the exchange rate since 1990 is more than enough to explain Brazilian industry's loss of competitiveness, and deindustrialization in motion—the deindustrialization that we see in the falling shares of the manufacturing industry in employment, GDP, and total exports, and in the increasing trade deficit of the manufacturing industry. In fact, deindustrialization was not still greater only because the "Brazilian automotive regime" initiated in 1995 imposed an import tariff of around 35% on the auto industry. Thus, in relation to this industry, which is crucial to the Brazilian economy, the government fully neutralized the Dutch disease, but only in relation to the domestic market; the competitive disadvantage remained in exports. The rationale for the adoption of the program was the importance of planning the production chain, but its good results reflected the fact that tariffs are a form of exchange rate, and its increase led to the neutralization of the Dutch disease in relation to imports.

To counteract the tendency to cyclical and chronic overvaluation of the exchange rate and to make the exchange rate competitive, the government must neutralize the Dutch disease and radically reject the three habitual and populist policies. But before that, Brazilian economists and politicians would be well advised to, in the first place, understand the Dutch disease and why an export tax proportional to the severity of the disease neutralizes it. This is a serious problem because few economists in Brazil or in other countries are aware of this, in the same way that only a few economists knew of inertial inflation between 1980 and 1994—a knowledge that ultimately was essential to the price stabilization that the 1994 *Real* Plan achieved.

Once the knowledge problem is overcome, there is then also a political problem. It is politically difficult to neutralize the Dutch disease. First, the once-and-for-all depreciation involved causes a temporary but unpopular fall in all real revenues, and a temporary increase in inflation—something that Brazilians are loath to accept. Second, powerful commodity exporters, supported by liberal-orthodox economists who do not believe that productive sophistication is a condition for growth, would resist the tax (even though their net cost would be zero, since what they paid in taxes they would receive back in depreciation). The first difficulty was solved by the fall in the commodity prices and the financial crisis that happened in the second semester of 2014 and caused both recession and a strong depreciation of the *real*. What the administration had to do was simply adopt (or avoid) the particular policies to avoid re-appreciation of the *Real*. As for the second difficulty, a possible solution would be that the law establishing the

tax also includes a table defining the relation between its international price and the percentage tax for each commodity. Currently, since the fall in international prices was huge, this percentage would be zero. In this way, the commodity exporters would not depend on the will of the government. If the international price of a commodity fell, the tax would be reduced, up to zero.

However, note that an export tax will not assure the competitiveness of the manufacturing industry if the government continues to adopt the habitual policies that appreciate the national currency. This happened in Argentina from 2007 onward. In the 2001 financial crisis, a tax (*retención*) was imposed on commodity exports, which neutralized the Dutch disease and for six years allowed the economy to grow at a very high rate. However, in 2007, given the rise of inflation, the government decided to adopt the exchange-rate anchor policy to control inflation. In consequence, despite the tax, the exchange rate has appreciated, industry has lost competitiveness, and the growth rate has fallen, at the same time that the country has failed to achieve a current account surplus. This shows that it is futile to neutralize the Dutch disease with an export tax and then adopt policies that appreciate the national currency. In the case of Brazil, after the 2014 depreciation, an export tax remained a proposal "off the agenda," and the three habitual policies were not changed. Consequently, the *real* again became overvalued, as we have seen.

11.6. Conclusion

This chapter has used the ideas of new developmentalism and developmental macroeconomics models to explain the quasi-stagnation of the Brazilian economy. In short, after the mechanism that neutralized the Dutch disease was dismantled with the 1990 trade opening, the exchange rate appreciated chronically, varying the overvaluation from 8% to 25%, except in the cyclical moments of financial crisis, when it sharply depreciated. In addition to this structural cause, there are three habitual policy causes: the growth with current account deficits ("foreign savings") policy; an exchange rate anchor policy to control inflation; and a high level of the interest rate both to attract capital and to control inflation. The non-neutralization of the Dutch disease and the three habitual policies have reduced the productivity and competitiveness of Brazil's manufacturing industry in monetary terms and also in technological terms, because the lack of investment hinders the modernization of machines and equipment. Second, the interest-rate level has remained very high since the *Real* Plan. Third, from the late 1970s public savings became negative, which substantially decreased the investment capacity of the Brazilian state and so rendered infrastructure obsolete. Finally, in the early 2000s the country reached the "Lewis turning point" in that the unlimited supply of labor ended.

Of these four policies, the first two, which raise interest rates and result in a currency that is overvalued over the long term, are the most important causes of Brazil's low investment and growth rates. They represent a serious problem, but neither the liberals

nor the developmental economists have conducted a serious debate about this macroeconomic trap. The political economy causes for this are as clear as they are burdensome. The necessary exchange rate devaluation displeases both groups. The developmental macroeconomics models relating to the Dutch disease and to the critique of growth with foreign savings remain generally unknown. Therefore, instead of discussing how to carry out devaluation, and what the economic and political obstacles to doing so are and how to overcome them, both camps reflexively argue that devaluation is either unnecessary, unfeasible, or both. Regardless of whether they are developmental or liberal, economists reject the required initial and once-and-for-all devaluation on the basis that in the short term it would reduce wages (which it would) and would increase inequality (which it would not, because it would reduce not only wages but also all kinds of income). Indeed, attempting to reduce extreme inequality in Brazil through the exchange rate makes little sense. A better way to reduce it is through progressive taxation, a minimum-income policy, low interest rates, and an expanded social state. Progressive taxation explains, for example, why Sweden has a far more equal distribution of income than the United States. The Gini index pre-taxation is almost equal in the two countries, but post-taxation it is very different; while taxation is progressive in Sweden, it is not in the United States.

Liberal economists also reject devaluation, both because it temporarily increases inflation and reduces the real interest rate—unacceptable to rentier capitalists—and because it would create difficulties for companies indebted in dollars and therefore for the creditor banks. Like the developmental economists of the left, right-wing liberals hold an instinctive horror of currency devaluation. To the left it implies inaction, and to the right it implies fiscal austerity, which will result in an "internal devaluation" as unemployment grows and wages fall while the incomes of rentiers will remain untouched. Insofar as the two sides focus only on the difficulties associated with the proposed policy, they avoid responsibility for defending the temporary reduction of incomes and the temporary increase in inflation which devaluation involves. Thus, because of this "active omission" on the part of the economic elites, society is uninformed about the real causes of the stagnation of the Brazilian economy since the early 1990s. Since the reluctance is shared across left and right, government remains paralyzed on the issue no matter which political party holds office. Economists, businesspeople, and politicians continue to lack an understanding of the fundamental and detrimental role of the long-term overvaluation of the exchange rate and the ensuing competitive disadvantage suffered by non-commodity tradable industries on the processes of growth and internationally "catching up."

Notes

1. *Macroeconomia da Estagnação* [*Macroeconomics of Stagnation*] was the name of the 2007 edition; in English it was published two years later with the title *Developing Brazil: Overcoming the Failure of the Washington Consensus* (Boulder, CO: Lynne Rienner, 2009).
2. Between 1930 and 1980 the per capita growth rate was 2.8% a year.

3. Inflation becomes "inertial" when economic agents index their prices and wages to previous inflation formally and informally, and inflation becomes independent from demand. For the first works on inertial inflation, see Simonsen (1970) and Pazos (1972); for the fully developed theory, see Bresser-Pereira and Nakano (1987) and Lara-Resende and Arida (1985).
4. Note that the *Real* Plan was successful because it was the outcome of a heterodox economic theory (the theory of inertial inflation) developed by Brazilian economists.
5. See the 2010 PhD dissertation of Senator Otávio Mercadante, at that time leader of the government in the Federal Senate.
6. All exchange rates in this chapter are expressed in real terms, in third quarter 2016 prices; and they are the "effective" exchange rate, which considers 16 currencies instead of only the dollar.
7. The administration had already failed to undertake a fiscal adjustment when, in the second semester of 2011, the Central Bank significantly lowered the interest rate.
8. The explanation for the rise in inflation is given in the previous note. A substantial reduction in the interest rate must be accompanied by a fiscal adjustment.
9. On the Minskyan financial crisis, see Renato Resende (2016).
10. In 1964 the liberal and highly competent Planning Minister Roberto Campos nationalized foreign companies to incorporate them in two major state-owned enterprises, Telebras and Eletrobras, and immediately increased their consumer prices—a policy that allowed the two companies to self-finance their much-needed investments.
11. For the theory, see Bresser-Pereira and Gala (2007). There is a large empirical literature on "savings replacement," which demonstrates empirically this key New Developmentalist model on the substitution of foreign for domestic savings.
12. On the case of Brazil, in addition to Figure 11.5, see Bresser-Pereira (2009, Chapter 7); Bresser-Pereira, Araújo, and Gala (2014).
13. Liberal orthodoxy is closely associated with exchange-rate populism in developing countries insofar as their economists have a positive view of current account deficits, which, in most cases, finance consumption.
14. Figures on the industrial equilibrium at December 2015 prices arrived at through research with Nelson Marconi at the Center of New Developmentalism of the São Paulo School of Economics, Getúlio Vargas Foundation. Studies by Nassif, Feijó, and Araújo (2015) and Oreiro, Basílio, and Souza (2014) arrive at similar numbers. For the method adopted by myself and Nelson Marconi, see Marconi (2012).
15. For the estimate of the industrial equilibrium see Marconi (2013), Nassif, Feijó, and Araújo (2015), and Oreiro, Basilio, and Souza (2014).

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