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Brazil's Enigma: Sustaining Long-Term Growth

Brazil prepares to take a new leap – to grow more and better. To make our model more robust and open in this new development cycle, we will incorporate a new word: competitiveness.

— Dilma Rousseff, 2012

On October 26, 2014, the President of Brazil, Dilma Rousseff was narrowly re-elected to a second term in office by a margin of 3%, and Brazil stood divided over whether she could reverse the macroeconomic problems of her first term. Economic growth had slid to a fraction of a percentage point, down from a peak of 7.5% in 2010, while inflation persistently exceeded the Central Bank's target of 4.5%. Moreover, the Rousseff administration's expansive stimulus packages and mercurial legislation regarding capital controls on foreign investments undermined investor confidence and caused the fiscal deficit to grow wider. Adding to the government's troubles, Petrobras, Brazil's state-owned oil company was undergoing investigation for a billion dollar corruption scandal involving Rousseff's party, the *Partido dos Trabalhadores* (PT). For 2015, economic activity was expected to contract by close to 3%, the worst recession in decades.

Throughout the 2000s, the Brazilian economy had expanded rapidly due to its commodity exports and consumer boom, transforming the country into the darling of international markets (see **Exhibits 1** through **4b**). At the height of this hype, Brazil was named the host nation for the 2014 World Cup and the 2016 Olympic Games. However, the commodity boom, paired with increased inflows of foreign capital, placed upward pressure on the Brazilian Real, which appreciated 32% between 2001 and 2008.[1] In 2008, in order to prevent an excessive inflow of foreign capital, the government introduced capital controls in the form of a tax on fixed income from foreign investments. Finance Minister Guido Mantega insisted that Brazil was fighting an international currency war, in which governments around the world were competing to lower their exchange rates, effectively raising their own competitiveness. The Real continued to appreciate an additional 39% from 2008 to 2010.[2]

In the fall of 2010, Rousseff was elected to office, becoming the first female president of Brazil. During her first term, unemployment dropped below 5% and real incomes continued to rise. However, these successes came with a high cost. Productivity flat lined, and critics worried about the nation's lack of competitiveness. One bus manufacturer complained, "To export from Brazil has become very expensive. The costs in Brazil are too high. For that reason we moved part of our production to China."[3] Other challenges included the nation's poor infrastructure, high tax burden, and undeveloped educational system, which produced a shortage of highly skilled employees[4]—factors that together were known as the "Brazilian cost." In the summer of 2013, the country faced the largest protests in over two decades amid fears of increased inflation.[5]

Professor Laura Alfaro and Research Associate Hilary White prepared this case. This case was developed from published sources. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

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When Rousseff was re-elected in October 2014, the current account deficit had widened to 3.7% of the GDP despite promises to promote exports, while the Real continued weakening. Additionally, many speculated that the commodity cycle that had helped Brazil in the 2000s was coming to an end. Government spending, including a R$133 billion (US$66 billion) stimulus plan to fund infrastructure improvements, had ballooned, causing the fiscal position to deteriorate by over 3% of GDP during Rousseff's first term.

The Brazilian government struggled to define the best balance between exchange rate, monetary, and fiscal policy for economic growth. By summer of 2013, Brazil had largely abandoned its capital control regime. In late November 2014, a month after her narrow victory, Rousseff replaced Mantega with Joaquim Levy as finance minister, while appointing a new budget minister, Nelson Barbosa. Many wondered whether the appointment of Levy, who was known for his fiscal conservatism, signaled a new course for Brazil's economy. Would the new economic team be able to restore credibility to Rousseff's triple promise of targeting inflation, keeping the exchange rate flexible, and exercising fiscal restraint, while still promoting greater exports and GDP growth?

Brazil during the 2000s: The Lula Years

Throughout the 2000s, Brazil appeared increasingly likely to emerge as one of the world's leading economic powers.[6] From 2000 to 2008, Brazil's high inflation had been tamed, fiscal deficits had been controlled, and external debt had declined (see **Exhibit 5**). In 2008, Brazil was upgraded to BBB+ status by the rating agencies, earning the nation "investment grade" status. Standard & Poor's credit analyst, Lisa Schineller, commented, "The upgrades reflect the maturation of Brazil's institutions and policy framework, as evidenced by the easing of fiscal and external debt burdens and improved trend growth prospects."[7] By February 2008, Brazil had become the largest emerging stock market.

Furthermore, programs aimed at reducing the nation's poverty, initiated during the Fernando Herinque Cardoso government (1995–2002) and Luiz Inácio "Lula" da Silva government (2003–2010), appeared to be a success (see **Exhibit 6**). Between 2003 and 2009, over 32 million Brazilians rose to the middle class and poverty rates fell from 21% of the population to 11%.[8] Unemployment dropped substantially from 12.3% in 2003 to 7.9% in 2008,[9] while income inequality decreased by 6%.[10] Federalized under Cardoso and expanded under Lula, *Bolsa Familia* was a conditional cash transfer program aimed at increasing the number of children in school. Reaching 12.4 million families by 2010, some analysts estimated that the program was responsible for one-sixth of Brazil's poverty reduction.[11] However, Brazil still suffered from substantial inequality in income distribution; in 2009, Brazil's top 20% of the population held 58.6% of the nation's wealth, while the lowest 20% held only 2.9% (see **Exhibit 7**).[12]

By mid-October 2008, however, the financial crisis had reached Latin America, and Brazil was unable to escape its impact. The nation began to feel the consequences of weakening commodity prices and credit shortages. As a global recession appeared increasingly inevitable, investors withdrew from Brazil, causing the Real to drop 40%, the most dramatic decrease since the country's currency crisis in 1999. Brazilian industrial production fell by 21% over the next three months, the worst decrease witnessed during the past two decades.

However, the national economy proved resilient, falling into recession for only two quarters, from December 2008 to March 2009. Brazil's ability to weather the financial uncertainty was largely due to the shoring up of the nation's economic policy over the past decade, owing to low external debt levels, a healthy banking system, a flexible exchange rate, and high dollar reserves.[13] By 2008, Brazil's foreign

reserves amounted to US$205 billion. The quick revival of the Brazilian economy in early 2009 encouraged optimism in Brazilians and foreign investors alike.

Brazil in the International Community: Trade and Globalization

Since colonization under the Portuguese in the sixteenth century, the Brazilian economy had been substantially dependent on commodity exports to Europe, the United States, and Latin America. From the late 1930s to the early 1980s, an import-substituting industrialization (ISI) development strategy, first instituted under President Getúlio Vargas and continued under the nation's military dictatorship (1964–1985), encouraged the substitution of foreign imports with domestically produced goods.[14] Under ISI strategy, tariffs were raised, and the exchange rate was fixed. However, by the early 1980s, the Brazilian economy slid into recession. In an effort to revitalize the economy, Brazil underwent a substantial trade-liberalization scheme from 1988 to 1994. As a result, tariff averages dropped from 60% in 1987 to 15% in 1998.[15]

President Cardoso further urged Brazil to better integrate into global markets, and in 1995, Brazil joined the World Trade Organization (WTO). Through its membership in the WTO, Brazil took a leading role during the Doha rounds, contending that developed nations needed to reduce their agricultural subsidies and that emerging markets should have flexibility over patents in order to access essential medicines under the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement. In 2007, Brazil became the first major nation to issue a compulsory license under TRIPS, breaking the intellectual property (IP) rights of the pharmaceutical firm, Merck, for the HIV drug, Efavirenz, thus lowering the price of HIV medication for Brazilians. In 2009, in response to allegations that the U.S. government was putting Brazilian exporters at a disadvantage with cotton subsidies, the WTO ruled that Brazil could impose US$820 million in retaliatory tariffs. The ruling was the second time the WTO approved cross-sector retaliation, and Brazil responded by raising tariffs against the U.S. on 102 products, including cotton, electronics, and automobiles.[16]

Brazil had also made efforts to improve its international standing by joining the Mercosur trade bloc and the G20. In 1991, Brazil entered a free trade agreement with Argentina, Paraguay, and Uruguay, which together made up Mercosur. Since 2008, Brazil had also been a member of the G20, the main economic council for the world's advanced and emerging economies.

Brazil's Commodity Boom

Throughout the 2000s, Brazil's economy made consistent progress, culminating in GDP growth of 7.5% in 2010. Driving this steady growth was a commodity boom, primarily fueled by exports of iron ore, oil, and soybeans, as well as an increase in domestic consumption, stimulated by an emerging middle class and a stable macroeconomic environment. By 2009, Brazil was ranked the world's biggest exporter of iron ore and the second-biggest exporter of soybeans.[17] Such growth was further fueled throughout the late 2000s by the discovery of several large oil fields. In October 2006, the BG Group discovered the Tupi oil field in the Santos basin off the coast of Brazil, while the Jupiter field was found nearby in 2008. With each field capable of producing an estimated 8 billion barrels of recoverable oil, Brazil was expected to become one of the world's top-five oil producers by 2020.[18]

Brazil's exports were a major contributor to the economy's growth, accounting for 14% of GDP by 2010 (see **Exhibit 8**). Between 2000 and 2010, Brazilian exports increased from R$70.7 billion to R$132.4 billion, an average annual growth rate of 7.3%. During the same period, imports amounted to R$70.4 billion, growing by an average of 10.2% per annum to reach R$156.4 billion (see **Exhibit 9**).[19]

While Brazilian exports continued to rise throughout the decade, the nation's export structure began to shift. Since 2010, export earnings from manufactured goods had steadily declined, such that primary goods began to make up the bulk of Brazil's export earnings.[20] China was the main driver of this shift, as the nation's demand for iron ore and crude oil drove up export prices. Traditional labor-intensive industries, such as textiles and shoes, also lost ground to producers in Asia. Despite serving as only a marginal trade partner in 2001, China now led the demand for Brazilian exports, increasing its total trade with Brazil twelvefold over the decade.[21] In 2009, China surpassed the United States as Brazil's leading export market (see **Exhibit 10**). Yet, there existed concerns that Brazil's economic growth was becoming dependent on China. Such dependency was problematic if China's own growth began to slow, thus reducing demand for Brazilian exports.

Custo Brasil

Contributing to the nation's troubles with manufacturing exports was the high cost of conducting business in Brazil, denoted by the term *Custo Brasil*. Coined by the National Confederation of Industries, the phrase "Brazilian cost" referred to the external costs a firm faced when operating in Brazil, resulting from a lack of infrastructure, high taxation, and excessive financing costs. In the 2015 *Doing Business* report, in which the World Bank measured the ease of conducting business in a given nation, Brazil placed 120 out of 189 countries (see **Exhibit 11**).[22] Some speculated that the cost of doing business hindered Brazil from surpassing its competitors, China and India, in economic growth.

The "Brazilian cost" was seen as responsible for reducing the competitiveness of Brazilian producers in global markets. The tax burden in Brazil, for example, was an estimated 35% of GDP.[23] In the United States, the tax burden was close to 25%; in Korea, 25%; in Mexico, 18%; and in China, around 17% of GDP.[24] The World Bank ranked Brazil's tax system 177 out of 189 nations due to the high cost of payments and the complicated filing procedure. Firms, on average, spent over 2,600 hours per annum preparing and filing taxes, while paid taxes comprised 68.9% of a firm's profit (see **Exhibits 12a** and **12b**).[25] Despite having a heavy and complex tax system, no systematic tax reform had been implemented in Brazil.[a]

Additionally, interest rates in Brazil remained high in comparison with international standards. At the end of 2010, Brazil had one of the highest interest rates in the world, with a base rate of 10.75% (see **Exhibit 13**).[26] While these high rates were attractive to foreign investors, the interest rates limited credit opportunities for domestic businesses (see **Exhibit 14**).

The Brazilian Development Bank (BNDES) operated as the main supplier of long-term funding for development projects in Brazil, financing 40% of the country's investments in manufacturing and infrastructure. BNDES loans were subsidized, offering lending rates at an attractive 6%, compared with the 12% yield on government bonds or the 40% commercial bank rate.[27] However, critics of BNDES argued that the bank focused too much on lending to large corporations, which received roughly four-fifths of the bank's R$137 billion annual disbursements.[28] Other critics argued that BNDES had developed too much political clout and could choose which businesses would receive the bank's much sought-after credit opportunities. Tony Volpon, an economist at Nomura, warned, "It begs the question about what is the subsequent political relationship between companies that become much larger and more powerful largely based on their access to subsidized lending and the governments doing the subsidized lending. It creates a very dangerous set of incentives."[29]

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[a] Federal taxes comprised 60% of the total burden; state and municipalities were responsible for 24% and 16%, respectively, of the remaining amount.

According to Transparency International, Brazil ranked 69 out of 175 nations on how corrupt the public sector is perceived.[30] A respected Brazilian newspaper estimated that between 2002 and 2008, over R$40 billion of the fiscal budget was lost due to bribery and corruption.[31]

Despite recent improvements, the nation's struggling education system contributed to the lack of skilled labor. The 2012 OECD Pisa (Programme for International Student Assessment) study showed that Brazil ranked 58 out of 64 nations for science; for mathematics, the country ranked 57.[32] Brazilian companies faced shortages of qualified local professionals, and firms were forced to offer aggressive salaries to attract workers.[33] The poor educational system also affected national productivity, which had increased by only 1.5% per annum during the past decade.[34] The problem appeared to lie in the quality, rather than the reach, of the education system. In 2005, 95% of children of official primary school age were enrolled.[35]

Other analysts mentioned that the costs to employers resulting from Brazil's highly regulated system of labor relations were another component of the Brazilian cost. Employers were required to provide extensive benefits to their full-time employees. Compulsory benefits included a 20% contribution of wages to social security, 30 calendar days of paid vacation, unemployment benefits, and a bonus amounting to one month's pay (referred to as the 13th salary).

Poor infrastructure further hindered national growth. In the World Economic Forum's *Global Competitiveness Report*, Brazil ranked 122 out of 144 nations for quality of roads.[36] Brazil's investment-to-GDP ratio stood below its BRIC counterparts, causing some analysts to suspect that weak infrastructure investment would be a future "bottleneck to growth."[37] Brazil's fixed capital formation stood at 18% of GDP, in comparison to 47% of GDP in China, 28% in India, and 22% in Russia.[38]

A Battle against Currency Appreciation

We have, and we are ready to use a whole arsenal to prevent or neutralize the excessive appreciation of our currency.[39]

— Finance Minister Guido Mantega

In 2001, the chief economist at Goldman Sachs, Jim O'Neill, projected that Brazil and three other nations, collectively known as the BRICs, would soon surpass the G7 in GDP growth, attracting enthusiastic backing of these emerging markets (see **Exhibit 15**).[40] Yet, in October 2002, leading up to the presidential election, foreign investors' trust in Brazilian markets faltered after the prediction that the left-leaning candidate, Lula, would win the presidency. Lula, whose former presidential campaigns promoted a socialist agenda, was believed to have little concern for corporate profits or the repayment of foreign debt; investors' fear of his election caused Brazil's risk premium to jump to 23%, while the stock market fell 4.6%.[41] Despite fears about Lula's leadership, growth, trust, and capital inflows returned to Brazilian markets after several years.

Between 2004 and 2007, foreign investments were again accelerating into Brazil. The International Institute of Finance estimated that foreign capital inflows increased from US$11.2 billion in 2006 to US$79.5 billion the following year.[42] As Brazil emerged as the biggest recipient of foreign capital in Latin America, upward pressure was placed on inflation, and the exchange rate fluctuated greatly. In 2008, the Real reached R$1.6 per U.S. dollar from a low of R$3.1 per U.S. dollar in 2004 (see **Exhibit 16**).[43]

Speculation emerged that the strong appetite for Brazil's assets was causing currency appreciation and the subsequent weakening in competitiveness of the country's manufacturing industries. One

Brazilian official commented, "It seems investors will buy anything. . . . They have to become more discriminating. We're really getting into a bubble."[44] Companies worried about the effects of exchange rate appreciation on the future opportunities available within Brazil. One businessman commented, "We're suffering under incredible pressure. If this goes on we're going to see the de-industrialisation of Brazil."[45] Oscar Becker, the finance director at Iochpe-Maxion, one of Brazil's largest automobile manufacturers, complained, "For manufacturing companies, it's hard to export from Brazil."[46] His firm began using overseas factories to supply foreign markets, using Brazilian factories only to meet local demand. He concluded, "I hope we will not reach the point where we have to supply the Brazilian market from overseas."[47]

In an attempt to stabilize the exchange rate and reduce the upward trend in inflation, the central government began to consider adopting a system of capital controls on inflows from abroad.[48] By March 2008, the central government established the *Imposto Sobre Operações Financeiras* (IOF), a financial transaction tax of 1.5% placed on incoming foreign fixed-income investments, as a means of quelling the flow of capital into the national economy. However, by October of that year, the wide-reaching effects of the international financial crisis were becoming clear. Foreign direct investment in Brazil nearly halved from US$45.1 billion in 2008 to US$25.9 billion in 2009.[49] In an effort to quell the outflow of investment, the government eliminated the IOF.

Yet Brazil recovered quickly from the economic downturn, and during the first nine months of 2009, approximately US$20 billion of foreign investments entered the Brazilian equities market.[50] On October 20, 2009, the government reintroduced the IOF, expanding the tax to a 2% rate on fixed income, in addition to portfolio and equity investments. The IOF did not apply to inflows of direct investment.[51] Since its reintroduction in October 2009, the IOF became a way for the Brazilian government to control the influx of capital into the nation, and the tax was repeatedly both raised and expanded to include other forms of investments (see **Exhibit 17**).

By late 2010, the Real continued to appreciate, emerging as one of the strongest-performing currencies in the world. In September 2010, Finance Minister Guido Mantega became the first official to denounce nations that were purposefully weakening their exchange rates in order to make their own exports cheaper. Mantega argued that this push for foreign exchange intervention had hurt Brazil's own competitiveness. Mantega stated, "We're in the midst of an international currency war, a general weakening of currency. This threatens us because it takes away our competitiveness."[52] On October 5, 2010, Mantega announced that the IOF on fixed-income instruments was to be raised to 4%; less than two weeks later, the tax was raised to 6%. Despite rhetoric about fighting the effects of the "international currency wars," Mantega insisted that Brazil would maintain its floating exchange rate. Mantega stated, "We have to repeat that the Brazilian government does not consider that there is an ideal exchange rate or an exchange rate range for floatation. Our exchange rate regime is a floating one and it is good that it remains so."[53]

The Election of Dilma Rousseff

By fall of 2010, President Lula was tremendously popular, with an approval rating of over 80%.[54] Term limits prevented him from running again, and Lula was left off the ballot for the first time since 1989. Instead, Lula endorsed his former chief of staff, Dilma Rousseff, the chosen candidate of the PT, in the ensuing presidential election.

Rousseff, the daughter of a Bulgarian entrepreneur, grew up in a middle-class household. In her late teens, Rousseff shed her traditional background, becoming involved in the left-wing guerrilla group, the Palmares Armed Revolutionary Vanguard, in opposition to Brazil's military dictatorship,

which ruled the country from 1964 to 1985. Starting in 1970, Rousseff was jailed for three years under subversion charges, during which time she was tortured by her interrogators. After completing her sentence, Rousseff earned a master's degree in economics and soon held a series of midlevel government jobs. In 2003, Rousseff joined the Lula administration as the energy minister, becoming Lula's chief of staff two years later, following a series of corruption scandals that left several vacancies in government positions. Rousseff had a reputation as an astute technocrat, yet she lacked the personality of Lula, which endeared the former president to the Brazilian people. Some analysts noted that Rousseff had a brusque demeanor and short temper, giving her the nickname "the iron lady."

Prior to the election, Rousseff promised that her government would reduce interest rates, boost investment, and improve productivity through enhanced fiscal rigor. Between 2002 and 2010, government primary spending increased by 23% of GDP.[55] Rousseff announced, "We will spare no effort to improve the quality of public spending, to simplify and lighten the tax burden and to improve the quality of public services."[56] Additionally, Rousseff insisted that her government would target growing inflation, namely, by ensuring price stability. By late 2010, inflation had reached a seven-year high of 6.5%.[57]

The question of the government's ideal role in regulating the economy was highlighted in the run-up to the general election. Rousseff's opponents accused her of being "statist" following her open support for a larger governmental role in economic planning and policy. Commenting on the accusation, Lula stated, "Not that that's a bad thing. It's good. Obviously you won't want to nationalize tire repair shops, bars and pizzerias. But [about] things that are strategic, that aren't working and need to be put to work better, we must not be afraid of taking decisions that are important for our country."[58] However, some worried that greater state involvement in the economy would choke out the private sector. O'Neill of Goldman Sachs warned, "A bigger state will crowd out the private sector. If you want lower real interest rates you have to reduce the role of the state."[59] Yet, in contrast to the election of Lula, investors appeared less concerned with the outcome of this election, assuming that neither Rousseff nor her opponent, José Serra of the Partido da Social Democracia Brasileira (PSDB), would deviate far from the economic policies pursued under the Lula administration.

In the first round of the general election, Rousseff won only 47% of the votes, falling short of the necessary majority. In the following runoff election against Serra, Rousseff won, becoming the first female president of Brazil. However, Lula's endorsement and his close relationship with Rousseff raised speculations that the president-elect would be a "proxy" for the former leader.[60] Others speculated that Rousseff would pursue policies further to the left than those of the Lula administration. Rousseff hinted about her intentions: "Many things have improved in Brazil. . . . But this is just the beginning of a new era."[61]

Reviving Productivity

During the first year of Rousseff's presidency, Brazil experienced a swift rise in the cost of labor. In 2010, the average labor cost per hour rose 20.4% from the previous year.[62] As productivity growth failed to keep pace, unit labor costs were pushed upward (see **Exhibit 18**). With the relative cost of production in Brazil increasing sharply, there was greater incentive for businesses to import goods rather than buy domestically. Carlos Ghosn, the CEO of Renault-Nissan, explained, "Brazil steel is [some] of the most expensive in the world. . . . Brazil's iron ore goes to Korea, is turned into steel there and comes back to Brazil. After that it's still cheaper than local steel; there's something wrong there."[63]

By early 2011, growth in industrial production weakened, growing only 0.2% in March and contracting in the following month (see **Exhibit 19**). In an effort to jumpstart the economy, the

government unleashed a series of stimulus packages aimed at reviving industrial production. Fabio Kanczuk from the University of São Paulo described the new president's initiatives: "Although industry does not generate as many jobs as the service sector, and cheap imported goods are benefiting the common people, Dilma believes it is important to protect the industrial sector. It is a question of ideology, that old belief that industrialization is necessary for development."[64]

Foremost, Brazil's existing infrastructure was a hindrance to improving competitiveness. In March 2011, Rousseff announced the introduction of PAC-2, the second phase of the *Aceleração do Crescimento*, the Growth Acceleration Program begun under President Lula. Both rounds of PAC focused on improving transport, sanitation, energy, and logistics. PAC-2 consisted of a R$959-billion pledge to be invested between 2011 and 2014, bringing the total cost of the two programs to R$1.59 trillion.[65] Commenting about the project's importance to Brazil's future, former President Lula stated, "I consider PAC-2 as a portfolio of projects that the next administration can build from rather than starting from scratch, as there is no time to lose."[66]

Throughout early 2011, the exchange rate continued to remain at R$1.6 against the U.S. dollar, and Mantega, who continued as minister of finance under Rousseff, targeted the blame for Brazil's currency appreciation on incoming foreign capital originating in developed markets. The finance minister insisted that the liquidity injected into American and European banks following the international financial crisis was the cause of the currency wars. Mantega focused his criticisms on the United States, citing that the country's policy of quantitative easing spurred an immoderate influx of foreign capital into Brazil. Mantega stated, "The advanced countries are still running expansionist monetary policies. . . . The developed world is taking longer to recover than expected and this means their currencies are still devaluing, which is causing the overvaluation of the Real."[67]

Yet, many in the international community blamed the onset of the "currency wars" on China. Analysts suggested that the Chinese government had been intentionally undervaluing the renminbi through its closed capital account and pegged currency, thus damaging the export prospects of other nations. Several other Asian countries, including Japan, South Korea, and Taiwan, also tried to make their domestic currency cheaper. The Western Hemisphere director for the International Monetary Fund (IMF), Nicholas Eyzaguirre, commented, "There is a correlation [between] the fact that China pegs its currency and pressures on the exchange rate of Brazil or Peru."[68] Despite U.S. accusations of currency manipulation, China continued to ignore calls to revalue the renminbi. As the renminbi remained undervalued, China's neighbors rushed to reduce their own exchange rates.[69]

Contributing to the problem, Brazilian interest rates were particularly attractive to overseas investors. As the influx of foreign capital threatened to overwhelm the Brazilian economy, the government decided to raise the IOF to 6% on foreign loans with a minimum maturity of up to 360 days in March 2011. By early April, the IOF was extended to loans with a maturity of up to two years. The increase in tax rate represented a shift away from a dependency on high interest rates to combat the growing levels of inflation in Brazil. Commenting on the effect of such short-term loans on the Brazilian economy, Mantega stated, "Three-month loans are not for investments. The inflow of dollars is too strong, damaging the exchange, appreciating the Real and harming exporters. We want to avoid that."[70] While the tax served to deter some short-term bond investors, long-term Brazilian bonds still offered a yield of 11%, even with the tax. Kieran Curtis, the emerging markets fund manager at Aviva Investors, commented, "That's higher than you can get anywhere else, especially for an investment-grade credit."[71]

Furthermore, the decision to place capital controls on incoming investments was not unanimously supported. Edemir Pinto, chief executive of the Brazilian Stock Exchange, called the government to

remove some of the existing capital controls on the grounds that the IOF was damaging the equity market. Over half of the money raised by Brazilian companies from IPOs originated from foreign investors, and Pinto claimed the tax on financial transactions was choking foreign inflows of capital. In early December 2011, the 2% IOF tax on equities was removed.

In August 2011, Rousseff unveiled a second stimulus package, called *Brasil Maior* (Bigger Brazil). The initiative was a multifaceted approach to restoring the Brazilian economy to vitality. Under *Brasil Maior*, the government offered R$25 billion in exemptions on payroll taxes for the textile, footwear, and software industries.[72] The cost of the exemption was to be recouped through a tax of 1.5% placed on corporate revenues. The plan also changed existing regulations on the Government Procurement Law, introducing a preference margin for domestic, rather than imported, products. BNDES agreed to invest R$2 billion in the Brazilian Innovation Agency, in addition to pledging R$75 billion in investments for technical services, information technology equipment, and hybrid buses.[73] Commenting on the plan, Rousseff stated, "This is the first step to boost Brazil's competitiveness relying on innovation, demanding more added value and fighting unfair and fraudulent practices by competitors."[74]

In particular, the plan addressed the "fraudulent practice" of avoiding Brazil's anti-dumping tariffs. In an attempt to protect domestic industrialists, Brazil had created a series of duties on imported goods that were believed to be priced below the market value in their country of origin. To avoid these tariffs, foreign companies created triangulation schemes, in which goods were sent to an intermediary nation where certifications of origin were falsified, before being sent to Brazil. Anti-dumping procedures were to be expedited by increasing the number of investigators from 30 to 120.[75]

The government's next defensive move focused on the nation's automobile market, the fifth largest in the world. In September 2011, Rousseff announced a 30 percentage point increase in the industrialized products tax (IPI) on foreign-built cars, raising the tax to 55% on certain models, not factoring in additional shipping costs and import duties.[76] The tax applied to vehicles containing less than 65% local content or automobiles made outside of Mexico or the Mercosur region.

By April 2012, automotive sales fell 14.2% from the previous month.[77] In a further attempt to improve the competitiveness of the local automotive industry, the government announced another stimulus package, amounting to over R$18 billion, in the form of temporary cuts to the IPI on small vehicles. The package also covered a reduction of the IOF tax for individual borrowers and decreased reserve requirements for car loans. Mantega stated, "We want Brazil to remain among the largest players in the global auto industry."[78] In July 2012, the government accelerated the PAC-2 program, which included an additional R8.4bn (US$4.2bn) in equipment and machinery purchases.

In the wake of the numerous stimulus packages, some analysts worried that the government's protectionist policies would escalate the currency war into a wider trade war, while others contended that the increase in import tariffs reduced efficiency and productivity. Ilan Goldfajn, chief economist at Itau Unibanco Banco Comercial, stated, "What the industry should want is not protection but competitiveness. If [the industry] realizes it has protection, there is a feeling that maybe there will be less productivity growth in the future, which leads to underinvestment."[79] Other economists complained that the Rousseff government should be reforming the tax system and doing more to improve productivity growth, rather than stimulating consumption of domestic goods. Throughout the 2000s, Brazil's growth had largely been driven by an expanding middle class, and consumption growth rates had outpaced those in production. Yet, as the economy continued to grow, necessary investments failed to reach Brazil's industries. Former Central Bank president, Armino Fraga further explained, "It is natural and desirable that consumption increases. . . . However, growth in demand

must be accompanied by growth in supply, which is not happening fast enough to keep GDP growth at 4%, 5% a year."[80]

While Rousseff had promised to address the country's increasing tax burden in the presidential election, a series of corruption scandals prevented Rousseff's coalition government from passing several key reform bills, including tax reform legislation. Between June and September 2011, Rousseff's chief of staff, the minister of agriculture, and the minister of defense were dismissed on charges ranging from influence peddling to bribery. While some encouraged the new president's tough approach to government corruption, the removal of the minister of transportation, Alfredo Nascimento, led to a renewed round of infighting, resulting in the ultimate withdrawal of the *Partido de Republica* from Rousseff's coalition government. Such infighting weakened the majority needed to push several reform bills through Congress, in addition to raising speculations about whether Lula would return for the 2014 election.

By early 2012, the government had learned that total factor productivity growth had contracted by 0.9% during the preceding year, strengthening the administration's determination to address productivity issues.[81] As the next component of the Rousseff government's stimulus wave, the administration created the Science Without Borders program to address the nation's shortage of skilled labor. The program created a scholarship fund with a budget of R$3.6 billion to enable 100,000 Brazilian university students to study abroad.[82] The Brazilian government and Harvard University signed an additional five-year agreement in order to facilitate the undergraduate and graduate studies of Brazilian science students at the university. The agreement stated that the Brazilian government would fund tuition and other related expenses, while students would still be required to undergo Harvard's normal admissions process.[83] Critics of the program contended that this substantial investment offered by the Brazilian government could be better spent on improving the quality of Brazil's primary and secondary schools, while others worried that sending talented students abroad could result in an exodus of the nation's highly educated individuals.

As the economy continued to be unresponsive to the government's stimulus spending, the Central Bank began aggressively cutting its overnight rate, known as the Selic rate, in an attempt to push down the Real. Copom, the monetary policy board at the Central Bank, had voted to cut the Selic rate eight consecutive times over a 10-month period, reducing the rate from 12.5% in late August 2011 to 8% in July 2012. The reduction in the Selic rate represented a dramatic shift in monetary policy; previously, the government had set a high rate in order to combat inflation consistent with a policy of inflation targeting.[84] The Copom decided to reduce the Selic rate, despite inflation measuring 6.5% in 2011, above the target set at 4.5%.[85]

The manipulation of the Selic rate also indicated a new offensive position for Brazil in the currency wars. Arturo Porzecanski, professor of economics at American University, commented, "The Brazilian government has been so vocal about the fact that Japan, the U.S. and Europe have been pumping money out the window. Now it looks like rather than fighting them, they're joining them."[86]

The Competitiveness Agenda

On August 15, 2012, Rousseff announced Brazil's sizeable stimulus plan, *Plano Nacional de Logística Integrada,* which aimed at improving the nation's infrastructure through an investment of R$133 billion. The stimulus represented an increased willingness of the PT to engage in public-private partnerships, as the government offered private companies the opportunity to buy the rights to operate roughly 7,500 kilometers of roads and 10,000 kilometers of railways.[87] Rousseff argued that the stimulus would help

reduce the cost of domestic manufacturing: "We want better infrastructure to cut costs for businesses and taxpayers, and most of all to ensure more and better-paying jobs."[88]

For these transportation improvements, R$79.5 billion was slated to be spent over the next 5 years, while the remainder was to be spent over the next 25 years. This announcement followed the earlier privatization of the nation's three largest airports in February. Overall, the stimulus was projected to double the capacity of the existing highway system, while restoring investor confidence in Brazilian productivity. Rousseff explained that this was just the first wave of a new series of investments: "We're starting an initial stage from which Brazil will emerge richer and stronger. . . . Brazil will finally have an infrastructure that's compatible with its size."[89] However, the use of concessions caused many to worry that projects would become riddled with corruption, and that the program would greatly exceed the projected timeline for completion. Moreover, the approaching World Cup and Olympic Games ensured that the international community was carefully monitoring the Brazilian advances in infrastructure.

The Rousseff administration's stimulus plan marked a pronounced change from earlier economic policies. Throughout the 2000s, the government focused primarily on fueling domestic consumption, facilitated by the expansion of credit access and the rising incomes of many Brazilians. However, as GDP growth stagnated by 2011, it appeared the government could no longer rely on increases in consumption to drive the economy. While the economy appeared increasingly dependent on the government for growth, Mantega adamantly denied accusations that ad hoc state intervention had been the reason for Brazil's inconsistent growth trajectory.[90] As the PT had previously opposed privatization, many analysts supported Rousseff's plan, arguing that the president was embarking on a more pragmatic policy that would contribute to long-term growth.

By fall 2012, Rousseff had cut taxes for businesses and promised to remove infrastructure bottlenecks. Rousseff also announced that the government would cut electricity rates in early 2013 by an average of 20%.[91] Brazilian companies insisted that the high cost of energy hindered the government's efforts to increase manufacturing competitiveness. In a report by the Rio de Janeiro Industrial Federation, it was estimated that Brazilian manufacturers paid more than double on energy bills than their counterparts in the U.S. and China.[92] However, critics contended that the burden of the cuts fell on the utility firms, causing investors to be wary of the growing involvement of the state. As Electrobas's share price dropped after agreeing to the government-imposed revenue cut, Volpon of Nomura Securities asserted, "I fail to see how destroying shareholder value helps to attract investment." One foreign investor in Electrobas warned, "We see this as a form of nationalisation of property."[93]

In September 2012, the government introduced a list of 100 products, ranging from pharmaceuticals to vehicle parts, plastics, and industrial equipment, which were subject to increased import tariffs. The tariffs, which reached 25% on certain products, covered 4% of Brazil's total imports by value.[94] Some analysts noted that the protectionist move raised suspicion that the government was not confident that its earlier interventions in the exchange rate regime and tax incentives for industry would successfully revive growth.

Persistent Inflation Challenges

In October 2012, the Central Bank dropped its interest rate target to the historic low of 7.25%. Yet, in January 2013, inflation measured 6.2%, near the top of the inflation band, and the government conveyed conflicting views about future policy. In an interview, Governor of the Central Bank, Alexandre Tombini expressed concern over the resurgence in inflation, signaling that the Bank may

reinstitute a tightened inflation targeting policy in the coming months. Mantega, however, downplayed the upward movement in inflation, stating that policymakers would intervene only if the Real rose to R1.85 per U.S. dollar. Since mid-2012, analysts believed the government had adopted an implicit "floor" of R2 per U.S. dollar, and Mantega's remarks suggested the government would consider allowing the currency to appreciate further.

By June 2013, investor confidence was at a low as the credit agency S&P downgraded Brazil's rating outlook to negative. The Real rapidly reversed to R2.3 per U.S. dollar, and the government faced additional uncertainty in the movement of the exchange rate due to the U.S.' inevitable exit from quantitative easing in the following months. In April and May, the Central Bank took a more aggressive stance on inflation, raising interest rates twice to 8%. On June 4, Mantega removed the IOF tax on fixed-income assets to halt the weakening of the currency. Eight days later, the IOF was removed on foreign exchange derivatives. While analysts celebrated the removal of the distortionary controls, the move was unexpected to have a profound effect on declining investor confidence.

Amid fears of increased inflation, widespread protests erupted in Rio de Janeiro and Sao Paulo in mid-June 2013, following an announcement that public bus fares would increase. The protests were the country's largest in two decades. Rousseff called a plebiscite to consider political reforms in response to the protests, but Congress rejected the proposal, calling in question Rousseff's political capital. As fiscal pressures mounted from the previous year's stimulus spending, the government was prevented from directing funds toward the protesters' demands for better health and education.

While the Rousseff government faced political pressures to spend from the rioters and the upcoming 2014 presidential election, the administration was forced into greater fiscal restraint as the tax breaks given to the manufacturing and industrial sectors in 2012 weakened government revenues. The public sector surplus measured 1.9% of GDP in 2013, down from the target of 3.1%. Additionally, a Rio de Janeiro based consulting firm found that infrastructure investments in 2013 totaled only 2.45% of GDP, despite the launch of the expansive concession program in 2012.[95] As the economy floundered, interest rates were seen as the only tool left to control inflation. Interest rates were raised to 11% in April 2014, up from the historic low seen in October 2012. However, inflation remained around 6.2%.

Dilma 2.0

On October 5, Rousseff won the first round of the 2014 presidential elections with 42% of the votes but fell short of the majority needed to avoid a run-off. While Rousseff placed first in the election, it was the poorest performance of any PT candidate since the party took office in 2003. Rousseff subsequently won a weak majority of 51.6% of the votes in the October 26 run-off election, earning her a second term in office. Upon winning the second term, Rousseff promised "new government, new ideas," although she proposed few changes to her previous economic policies. During the campaign, Rousseff also vowed to continue electricity subsidies and offer tax breaks for certain sectors of the Brazilian economy, despite these measures doing little to revive economic growth.

While Rousseff won a second presidential term, many questions surrounded her administration's economic management policies and possible involvement in corruption. In early 2014, Petrobras became embroiled in a billion dollar corruption scandal, in which the PT party allegedly received financial kickbacks. Rousseff served as the chair of Petrobras' board from 2003 to 2014, but there was no evidence that she was involved with the scandal. Adding to Brazil's troubles, S&P downgraded Brazil's debt rating to BBB-, the lowest investment grade rating, in March 2014.

By November 2014, Brazil's economy was in tough shape. The economy had slipped into recession during the second quarter of 2014, while Brazil's savings rate reached its lowest point in 10 years (see **Exhibits 20** and **21**). Growth in fixed capital investment measured -5%, even with the government's stimulus spending. Moreover, inflation reached 6.7%, in spite of the target of 4.5%, while the currency weakened to R2.6 per U.S. dollar.

These challenges coincided with several major changes within the international economy. By late 2014, international investors were becoming skittish about prospects in emerging markets as commodity prices plunged, and many speculated that the commodity boom, which had aided Brazil's strong growth throughout the 2000s, was drawing to a close. Furthermore, the U.S. was expected to increase interest rates this year, and observers worried about the potential spillover effects as the U.S. returned to normal monetary policy. Continuous uncertainty also surrounded European economic stability.

On November 27, 2014, a new economic team was named, signaling a possible change to the fiscal and monetary policies pursued during Rousseff's first term. Joaquim Levy was named the new finance minister, replacing Mantega, while Nelson Barbosa was named the budget minister. Tombini would remain as the governor of the Central Bank. Rousseff, however, was notably absent from the announcement, despite its positive reception by investors.

Levy was well-known for his fiscal conservatism, earning him the nickname "Scissorhands" during his term as treasury secretary under Lula, and many wondered if his appointment signaled a new course for Brazil's economy.

The year 2015 proved to be a difficult one for Brazil. Inflation approached double digits and government debt escalated. The corruption scandal surrounding Petrobras (*Lava Jato*), implicating close to 50 politicians, further eroded the support of the President, with many demanding impeachment or resignation. Dilma's popularity tumbled to an all-time low falling below 10% and demonstrations against Dilma became common. Many construction businessmen were implicated in the corruption scandal including Odebrecht, Latin American's largest construction conglomerate. Construction was paralyzed with many builders filing for bankruptcy.[96]

The economy continued to weaken. For many, the deterioration of the economic situation highlighted the urgent need to improve productivity and tackle structural reforms unattended over the last decade, such as pension, tax reform, labor laws, etc. However, reforms proved hard to pass in a politicized and polarized Congress. Eduardo Cunha, from the opposition but traditionally allied party PMB (*Partido Movimiento Democrático Brasileiro*) and currently President (speaker) of the lower house, was responsible for initiating impeachment proceedings. As he too was under investigation in the Petrobras scandal, many analysts saw him as using his position of power to obstruct.[97] The government struggled to gain control of the agenda in Congress.

In September 2015, S&P downgraded Brazil's ratings to junk.[98] Amid political risk, high volatility, a drifting exchange rate and ebbing confidence, investment collapsed as unemployment increased. The economy struggled as the recession deepened. Would the new economic team be able to revive Brazil's growth? How should the economic team best pursue reduced inflation, a flexible exchange rate, and low fiscal spending? What additional actions, if any, should the government take to encourage the competitiveness of the Brazilian economy? How could Brazil regain the path of sustained growth?

Exhibit 1 Brazil's General Economic Indicators

% change	1985	1990	1995	2000	2005	2008	2009	2010	2011	2012	2013	2014
Real GDP Growth	4.8	-4.2	4.2	4.3	3.2	5.2	-0.3	7.6	2.7	1.0	2.492	0.4
Real GDP Per Capita Growth	n.a.	n.a.	2.7	3.0	2.0	4.0	-1.4	6.3	1.7	0.1	1.6	-0.5
Consumer Price Index (end-period)	242.2	1621.0	22.4	6.0	5.7	5.9	4.3	5.9	6.5	5.8	5.9	6.3
Stockmarket Index (% change in R$ value)	n.a.	n.a.	-14.1	-18.3	44.8	-55.5	145.2	5.6	-27.3	-1.4	-26.3	–
Average Real Wage increase	n.a.	n.a.	n.a.	n.a.	1.6	4.7	-1.7	6.0	5.7	5.1	2.1	2.9
Average Nominal Wage Increase	n.a.	n.a.	n.a.	n.a.	8.5	11.6	3.2	11.5	12.6	10.6	8.6	7.5
M1 Growth	n.a.	n.a.	25.1	18.5	13.2	-3.5	12.0	12.6	1.2	13.9	6.0	10.7
Labor Productivity Growth	n.a.	n.a.	1.9	6.3	0.2	2.3	-0.6	4.8	0.0	-1.2	1.5	-0.6
Total Factor Productivity Growth	n.a.	n.a.	1.0	4.3	0.5	1.8	-1.4	4.2	-0.9	-2.0	0.3	-1.4
Units as shown												
Nominal GDP (US$ bns at PPP)	n.a.	n.a.	1,283.0	1,531.8	1,969.9	2,465.2	2,472.8	2,692.9	2,818.4	2,890.0	3,009.0	3,061.0
GDP Per Capita (US$ at PPP)	n.a.	n.a.	7,895.6	8,831.4	10,639.7	12,871.0	12,776.6	13,774.7	14,277.7	14,500.0	14,970.0	15,100.0
GDP (constant 2005 US$ bns)	560.4	598.2	695.7	768.7	881.8	1022.3	1019.1	1096.1	1126.1	1,137.7	1,166.0	1,170.3
GDP (current US$ bns)	224.2	465.0	769.0	644.5	881.8	1652.8	1621.7	2141.9	2473.5	2247.1	2245.4	2249
Nominal Exchange Rate (reais per dollar)	n.a.	n.a.	1.0	2.0	2.3	2.3	1.7	1.7	1.9	2.0	2.2	2.3
Unemployment (%)	9.8	8.0	8.7	13.3	9.8	7.9	8.1	6.7	6.0	5.5	5.4	5.5
Primary Public Sector Balance (% GDP)	n.a.	n.a.	n.a.	2.7	4.2	3.5	2.0	2.9	3.1	2.4	1.9	1.2
Nominal Public Sector Budget (% GDP)	n.a.	n.a.	n.a.	-3.5	-3.1	-1.9	-3.2	-2.1	-2.6	-2.4	-3.2	-3.9
International Reserves (current $ bns)	11.6	9.2	51.5	33.0	53.8	193.8	238.5	288.6	352.0	373.1	358.8	381.0
Foreign Debt (current $ bns, year-end)	104.2	120.3	161.0	242.5	188.4	263.0	281.6	352.4	404.0	440.5	482.8	534.0
Total External Debt (% of Nominal GDP)	46.5	25.9	20.9	37.6	21.4	15.9	17.4	16.5	16.3	19.6	21.5	24.2
Population size (millions)	135.9	150.1	162.5	173.4	185.2	191.5	193.5	195.5	197.4	199.2	201.0	202.8

Source: Created by casewriter based on data from Economist Intelligence Unit Country Data, December 2014.

Exhibit 2 Brazil National Income Accounts (billions of constant 1995 R$)

	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Household Consumption	62.5%	64.3%	60.3%	60.3%	59.9%	58.9%	61.1%	59.6%	60.3%	62.6%	62.6%	63.5%
Government Consumption	21.0%	19.2%	19.9%	20.0%	20.3%	20.2%	21.2%	21.1%	20.7%	21.3%	22.0%	22.4%
Gross Fixed Investment	18.3%	16.8%	15.9%	16.4%	17.4%	19.1%	18.1%	19.5%	19.3%	18.2%	18.2%	16.7%
Stockbuilding	-0.3%	1.5%	0.3%	0.3%	0.9%	1.6%	-0.2%	0.8%	0.4%	-0.6%	-0.3%	0.0%
Exports	7.3%	10.0%	15.1%	14.4%	13.4%	13.7%	11.0%	10.9%	11.9%	12.6%	12.6%	12.9%
Imports	8.8%	11.7%	11.5%	11.5%	11.8%	13.5%	11.1%	11.9%	12.6%	14.0%	15.0%	15.5%
Nominal GDP (current R$ bns)	705.6	1,179.5	2,147.2	2,369.5	2,661.3	3,032.2	3,239.4	3,770.1	4,143.0	4,392.1	4,844.8	5,179.9
Real GDP (constant 1995 R$ bns)	705.6	779.7	894.3	929.5	985.9	1,037.0	1,033.7	1,111.7	1,142.2	1,153.9	1,182.7	1,184.9

Source: Created by casewriter based on data from Economist Intelligence Unit Country Data, December 2014. Note: The Real was introduced on July 1, 1994.

Exhibit 3 Brazil Balance of Payments (billions of current U.S. dollars)

	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Current Account	**-3.8**	**-18.4**	**-24.2**	**14.0**	**13.6**	**1.6**	**-28.2**	**-24.3**	**-47.3**	**-52.5**	**-54.2**	**-81.1**	**-90.9**
Trade Balance	10.8	-3.5	-0.7	44.7	46.5	40.0	24.8	25.3	20.1	29.8	19.4	2.4	-3.9
Exports	31.4	46.5	55.1	118.3	137.8	160.6	197.9	153.0	201.9	256.0	242.6	242.0	225.1
Imports	-20.7	-50.0	-55.8	-73.6	-91.4	-120.6	-173.1	-127.7	-181.8	-226.2	-223.2	-239.6	-229.0
Net Services	-3.6	-7.5	-7.2	-8.3	-9.6	-13.2	-16.7	-19.2	-30.8	-38.0	-41.0	-47.1	-48.1
Net Income	-11.8	-11.1	-17.9	-26.0	-27.5	-29.3	-40.6	-33.7	-39.5	-47.3	-35.4	-39.8	-40.3
Credit	1.2	3.4	3.6	3.2	6.5	11.5	12.5	8.8	7.4	10.8	10.9	10.1	6.3
Debit	-12.9	-14.4	-21.5	-29.2	-33.9	-40.8	-53.1	-42.5	-46.9	-58.1	-46.3	-49.8	-46.7
Net Transfers	0.8	3.6	1.5	3.6	4.3	4.0	4.2	3.3	2.9	3.0	2.8	3.4	1.9
Capital Account	**0.0**	**0.4**	**0.3**	**0.7**	**0.9**	**0.8**	**1.1**	**1.1**	**1.1**	**1.6**	**-1.9**	**1.2**	**0.6**
Financial Account	**4.6**	**28.7**	**19.1**	**-10.1**	**15.4**	**88.3**	**28.3**	**70.2**	**98.8**	**110.8**	**71.9**	**73.1**	**99.0**
Net Direct Investment	0.4	3.3	30.5	12.5	-9.4	27.5	24.6	36.0	36.9	67.7	68.1	67.5	66.0
Direct investment abroad	-0.6	-1.1	-2.3	-2.5	-28.2	-7.1	-20.5	10.1	-11.6	1.0	2.8	3.5	3.5
Direct investment in Brazil	1.0	4.4	32.8	15.1	18.8	34.6	45.1	25.9	48.5	66.7	65.3	64.0	62.5
Net Portfolio Investment	0.5	9.2	7.0	4.9	9.1	48.4	1.1	50.3	63.0	35.3	8.8	25.7	30.7
Assets	-0.1	-1.2	-1.7	-1.8	0.0	0.3	1.9	4.1	-4.8	16.9	-7.8	-9.0	-2.8
Liabilities	0.6	10.4	8.7	6.7	9.1	48.1	-0.8	46.2	67.8	18.5	16.5	34.7	33.5
Equity	0.1	3.2	3.1	6.5	7.7	26.2	-7.6	37.1	37.7	7.2	5.6	11.6	25.3
Net Financial Derivatives	0.0	0.0	-0.2	0.0	0.0	-0.7	-0.3	0.2	-0.1	0.0	0.0	0.1	1.6
Net Other Investments	3.8	16.2	-18.2	-27.5	15.7	13.1	2.9	-16.3	-1.0	7.8	-5.0	-20.2	2.7
Net Errors and Omissions	**-0.3**	**2.2**	**2.6**	**-0.2**	**0.6**	**-3.2**	**1.8**	**-0.3**	**-3.5**	**-1.3**	**3.1**	**0.9**	**3.7**
Balance/Change in Official Reserves	**-0.5**	**-12.9**	**2.3**	**-4.3**	**-30.6**	**-87.5**	**-3.0**	**-46.7**	**-49.1**	**-58.6**	**-18.9**	**5.9**	**-10.8**

Source: Created by casewriter based on data from Banco Central do Brasil, accessed December 2014. Nominal GDP data and stock of foreign reserves compiled from Economist Intelligence Unit Country Data, December 2014.

Exhibit 4a Central Government Primary Balance (as percentage of GDP)

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
I. TOTAL REVENUE	**19.9%**	**22.7%**	**22.9%**	**23.3%**	**23.6%**	**22.8%**	**24.4%**	**23.9%**	**24.2%**	**24.4%**	**24.1%**
Treasury Revenues	15.2%	17.6%	17.7%	17.9%	18.2%	17.1%	18.7%	17.9%	17.8%	18.0%	17.5%
Gross Revenue	15.8%	18.3%	18.1%	18.4%	18.6%	17.6%	19.1%	18.3%	18.3%	18.5%	17.7%
- Taxes	7.4%	7.8%	7.7%	8.1%	8.9%	8.0%	7.9%	8.6%	8.5%	8.4%	8.3%
- Social Contributions	6.6%	8.5%	8.1%	8.2%	7.1%	6.6%	6.6%	6.9%	6.9%	7.1%	6.7%
- Other	1.8%	2.1%	2.3%	2.2%	2.6%	3.1%	4.6%	2.8%	2.9%	2.9%	2.6%
(-) Restitutions	-0.6%	-0.6%	-0.4%	-0.5%	-0.4%	-0.5%	-0.4%	-0.4%	-0.4%	-0.5%	-0.4
(-) Fiscal Incentives	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
Social Security Revenues	4.7%	5.0%	5.2%	5.3%	5.4%	5.6%	5.6%	5.9%	6.3%	6.3%	6.7%
Central Bank Revenues	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.00%
II. TRANSFERS TO STATES AND MUNICIPALITIES	**3.4%**	**3.9%**	**3.9%**	**4.0%**	**4.4%**	**3.9%**	**3.7%**	**4.2%**	**4.1%**	**3.9%**	**4.1%**
III. TOTAL NET REVENUE	**16.5%**	**18.8%**	**19.0%**	**19.3%**	**19.2%**	**18.9%**	**20.7%**	**19.7%**	**20.1%**	**20.5%**	**19.60%**
IV. TOTAL EXPENDITURE	**14.7%**	**16.4%**	**17.0%**	**17.1%**	**16.4%**	**17.7%**	**18.6%**	**17.5%**	**18.3%**	**18.9%**	**19.90%**
Payroll	4.6%	4.3%	4.5%	4.4%	4.3%	4.7%	4.4%	4.3%	4.2%	4.2%	4.3%
Social Security Benefits	5.6%	6.8%	7.0%	7.0%	6.6%	6.9%	6.8%	6.8%	7.2%	7.4%	7.7%
Current and Capital Expenditures	4.5%	5.2%	5.4%	5.7%	5.4%	5.9%	7.3%	6.2%	6.7%	7.2%	8.0%
Workers Support Fund (FAT)	0.5%	0.6%	0.7%	0.7%	0.7%	0.8%	0.8%	0.8%	0.9%	0.9%	1.1%
Economic Subsidies and Grants	0.3%	0.5%	0.4%	0.4%	0.2%	0.2%	0.2%	0.3%	0.3%	0.2%	18.0%
Assistance Benefits	0.0%	0.4%	0.5%	0.5%	0.5%	0.6%	0.6%	0.6%	0.7%	0.7%	0.8%
Other Current and Capital Expenditures	3.7%	3.7%	3.9%	4.1%	4.0%	4.3%	4.5%	4.5%	4.9%	5.2%	5.8%
Transfers from Treasury to Central Bank	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.5%
Central Bank Expenditures	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
V. SOVEREIGN FUND OF BRAZIL	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
VI. CENTRAL GOVERNMENT PRIMARY BALANCE (III-IV-V)	**1.8%**	**2.5%**	**2.1%**	**2.2%**	**2.4%**	**1.2%**	**2.1%**	**2.3%**	**2.0%**	**1.6%**	**-0.3%**
National Treasury	2.7%	4.2%	3.8%	3.9%	3.6%	2.6%	3.2%	3.1%	3.0%	2.6%	0.8%
Social Security	-0.9%	-1.7%	-1.8%	-1.7%	-1.2%	-1.3%	-1.1%	-0.9%	-0.9%	-1.0%	-1.1%
Central Bank	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
VII. METHODOLOGICAL ADJUSTMENT	**0.0%**	**0.1%**	**0.1%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**N/A**
VIII. STATISTICAL DISCREPANCY	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.0%**	**0.0%**	**-0.1%**	**-0.1%**	**N/A**
IX. CENTRAL GOVERNMENT PRIMARY BALANCE	**1.7%**	**2.6%**	**2.2%**	**2.2%**	**2.4%**	**1.3%**	**2.1%**	**2.2%**	**2.0%**	**1.6%**	**-0.3%**
X. OVERALL BALANCE	**N/A**	**N/A**	**N/A**	**N/A**	**-1.4%**	**-3.1%**	**-2.7%**	**-2.6%**	**-2.8%**	**-2.7%**	**-6.8**

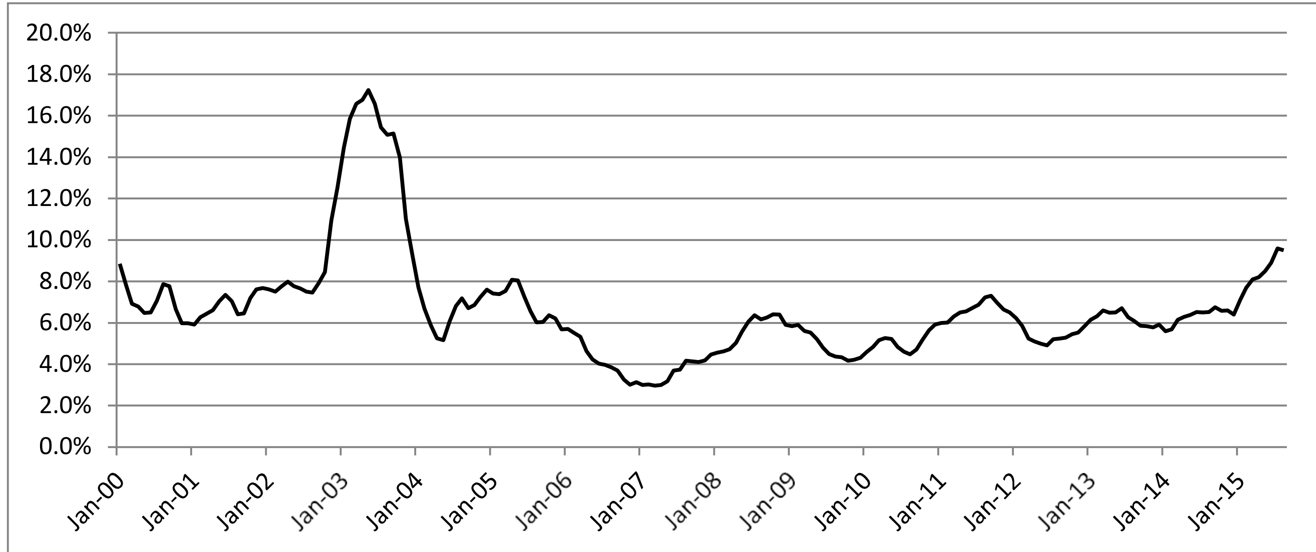
Source: Tesouro Nacional, Brazil, December 2014. Overall balance data from "Brazil 2015: Article IV Consultation," International Monetary Fund Country Report No. 13/312, 2013. Note: Overall balance figure for 2014 is an IMF projection.

Exhibit 4b Composition of Federal Public Debt (R$ billions)

Month	Fixed Rate		Inflation-linked		Floating Rate		Exchange Rate		Total	
Dec-04	162.76	16.05%	120.71	11.90%	485.03	47.82%	245.69	24.22%	1,014.21	100.00%
Dec-05	276.30	23.88%	152.19	13.15%	528.16	45.64%	200.61	17.33%	1,157.26	100.00%
Dec-06	401.76	32.48%	246.43	19.92%	437.85	35.40%	150.89	12.20%	1,236.94	100.00%
Dec-07	467.85	35.08%	321.65	24.12%	434.64	32.59%	109.61	8.22%	1,333.75	100.00%
Dec-08	417.93	29.91%	371.13	26.56%	473.07	33.86%	135.20	9.68%	1,397.34	100.00%
Dec-10	620.60	36.63%	451.30	26.64%	535.11	31.59%	87.02	5.14%	1,694.04	100.00%
Dec-11	694.66	37.22%	527.78	28.28%	562.44	30.14%	81.48	4.37%	1,866.35	100.00%
Dec-12	803.17	40.00%	680.12	33.87%	436.34	21.73%	88.36	4.40%	2,007.98	100.00%
Dec-13	891.99	42.02%	732.96	34.53%	405.57	19.11%	92.29	4.35%	2,122.81	100.00%
Jan-14	791.50	38.68%	744.09	36.36%	415.75	20.32%	94.96	4.64%	2,046.30	100.00%
Feb-14	807.59	39.07%	742.43	35.91%	426.66	20.64%	90.60	4.38%	2,067.28	100.00%
Mar-14	850.02	40.85%	755.68	36.32%	386.70	18.59%	88.21	4.24%	2,080.61	100.00%
Apr-14	793.44	38.66%	770.17	37.52%	398.88	19.43%	90.07	4.39%	2,052.56	100.00%
May-14	842.36	39.68%	778.54	36.67%	411.71	19.39%	90.31	4.25%	2,122.92	100.00%
Jun-14	897.37	40.73%	795.63	36.12%	421.42	19.13%	88.55	4.02%	2,202.97	100.00%
Jul-14	848.25	39.03%	804.30	37.01%	431.57	19.86%	89.06	4.10%	2,173.18	100.00%
Aug-14	883.77	40.74%	755.12	34.81%	438.57	20.21%	92.08	4.24%	2,169.54	100.00%
Sep-14	913.73	41.84%	765.86	35.07%	400.86	18.36%	103.16	4.72%	2,183.60	100.00%
Oct-14	865.51	40.16%	776.78	36.04%	410.34	19.04%	102.73	4.77%	2,155.37	100.00%
Nov-14	902.05	40.84%	781.44	35.38%	417.89	18.92%	107.57	4.87%	2,208.96	100.00%
Dec-14	954.66	41.58%	801.44	34.91%	428.42	18.66%	111.38	4.85%	2,295.90	100.00%
Jan-15	876.96	39.01%	815.75	36.29%	445.50	19.82%	109.67	4.88%	2,247.88	100.00%
Feb-15	925.16	39.71%	821.30	35.25%	466.20	20.01%	116.95	5.02%	2,329.62	100.00%
Mar-15	1,002.84	41.08%	845.08	34.62%	466.93	19.13%	126.36	5.18%	2,441.20	100.00%
Apr-15	973.04	39.69%	868.07	35.41%	492.44	20.09%	117.93	4.81%	2,451.47	100.00%
May-15	1,046.47	41.92%	820.12	32.85%	504.51	20.21%	125.13	5.01%	2,496.23	100.00%
Jun-15	1,098.47	45.52%	842.83	32.62%	520.61	20.15%	121.78	4.71%	2,583.69	100.00%
Jul-15	1,075.97	41.32%	859.38	33.00%	537.40	20.64%	131.21	5.04%	2,603.96	100.00%

Source: Tesouro Nacional, Brazil, December 2014.

Exhibit 5 Brazil Monthly Consumer Price Inflation (% change over previous year)



Source: Adapted by casewriter from Fundaçâo Instituto Brasileiro de Geografia e Estatística data, December 2014.

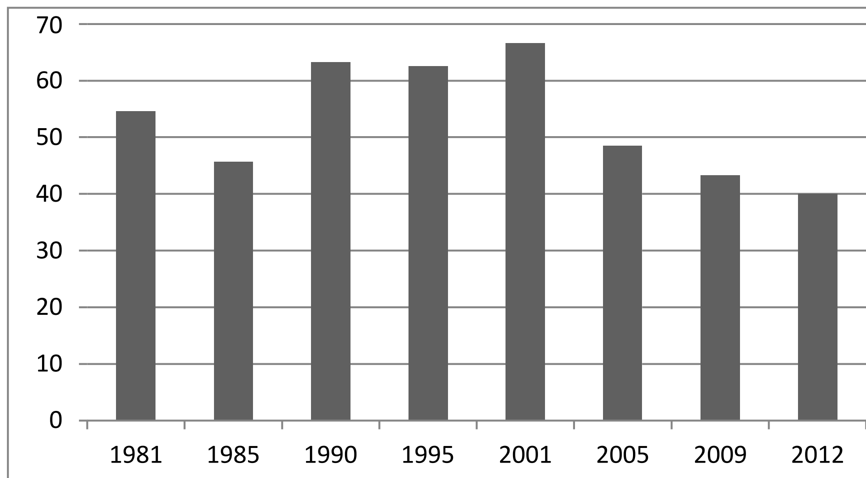
Exhibit 6 Social Indicators (most recent)

	GDP Per Capita (Constant 2005 US$)	Gini Index[a]	Infant Mortality (deaths per 1000 live births)	Life expectancy at birth (in years)	Secondary school enrollment (% gross)	Tertiary school enrollment (% gross)	Adult literacy (% people over 15)	Sanitation facilities (% population with access)	Mobile cellular subscriptions (per 100 people)	Quality of Overall Infrastructure Ranking (Out of 133)
Brazil	5823.0	52.7	12.3	73.6	105.8	25.6	91.3	81.3	135.3	76
Argentina	NA	43.6	11.9	76.0	91.9	78.6	97.6	97.2	159.0	89
Chile	9728.5	50.8	7.1	79.6	89.0	74.4	98.6	98.9	134.3	49
China	3583.4	37.0	10.9	75.2	89.0	26.7	95.1	65.3	88.7	46
India	1165.0	33.6	41.4	66.2	68.5	24.8	NA	36.0	70.8	87
Mexico	8519.0	48.1	12.5	77.1	85.7	29.0	94.2	85.3	85.8	65
South Africa	5916.5	65.0	32.8	56.1	101.9	NA	93.7	74.4	147.5	60
U.S.	45710.3	41.1	5.9	78.7	93.7	94.3	99.0	100	95.5	12

Source: Compiled by casewriter from World Bank, World Development Indicators Database Online, December 2014. Quality of Overall Infrastructure Rating from Michael Porter and Klaus Schwab, "Global Competitiveness Report 2014-2015," World Economic Forum, (Geneva: World Economic Forum, 2014).

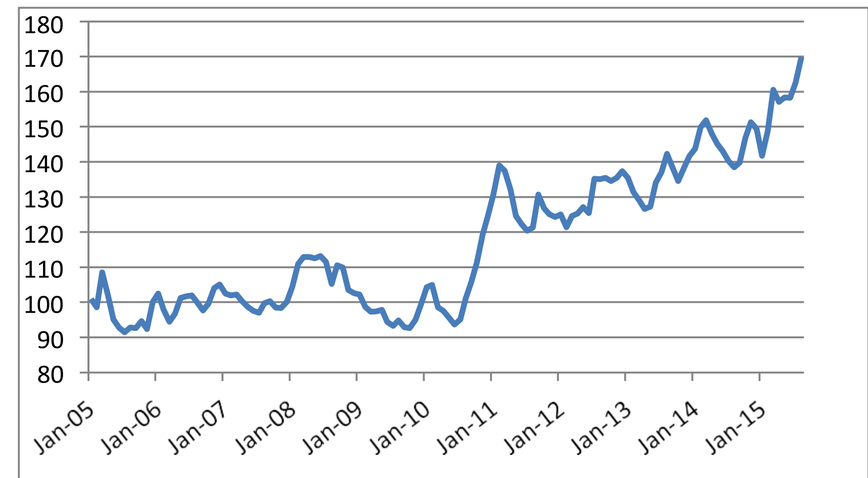
Note: The Gini Index measures the degree of income inequality. A higher number represents more inequality.

Exhibit 7 Income Held by the Top 10%/Bottom 10% of the Population



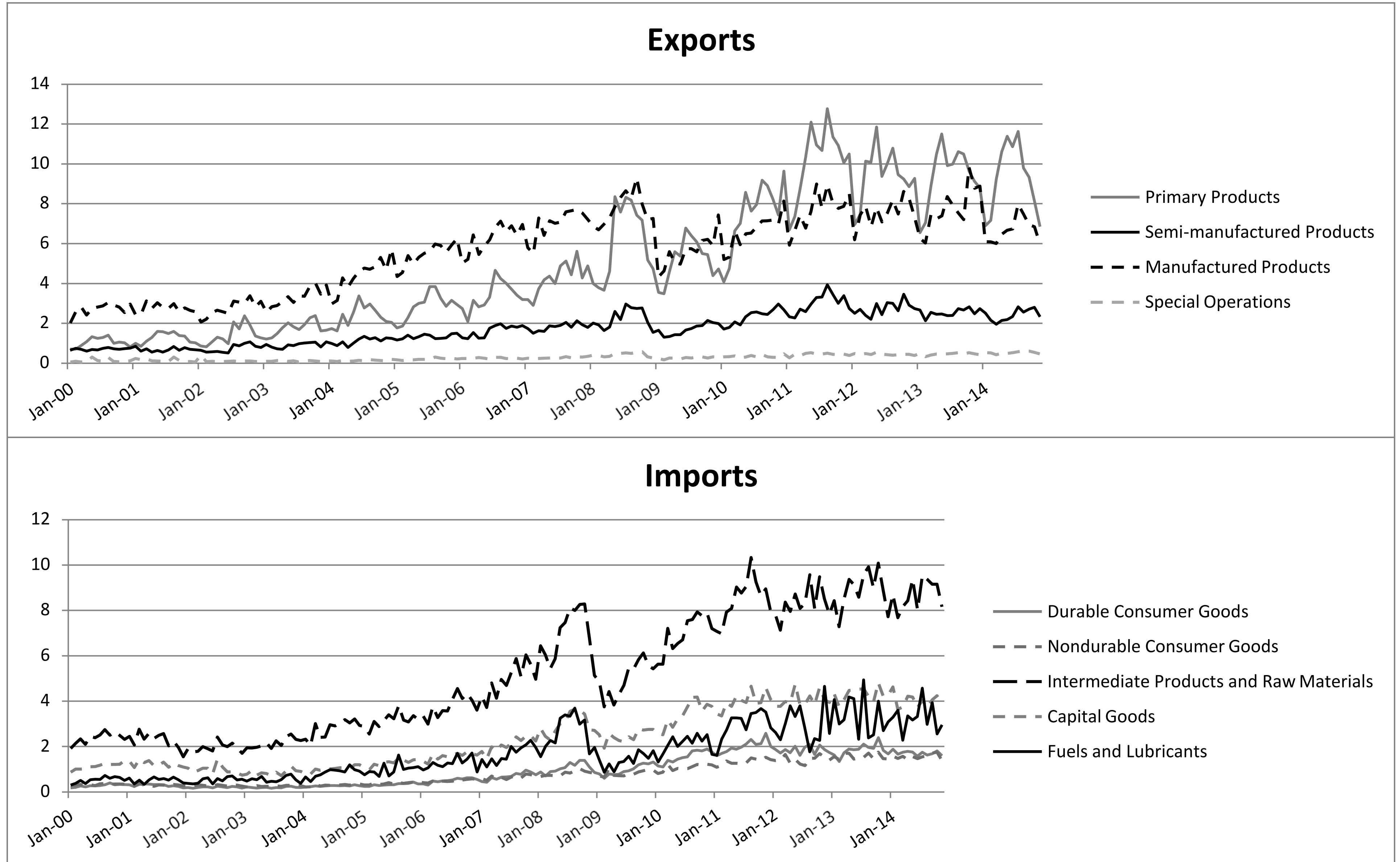
Source: Compiled by casewriter using data from the World Bank Development Indicators Database, World Bank Group, December 2014.

Exhibit 8 Commodity Index (Measured in R$, monthly average)



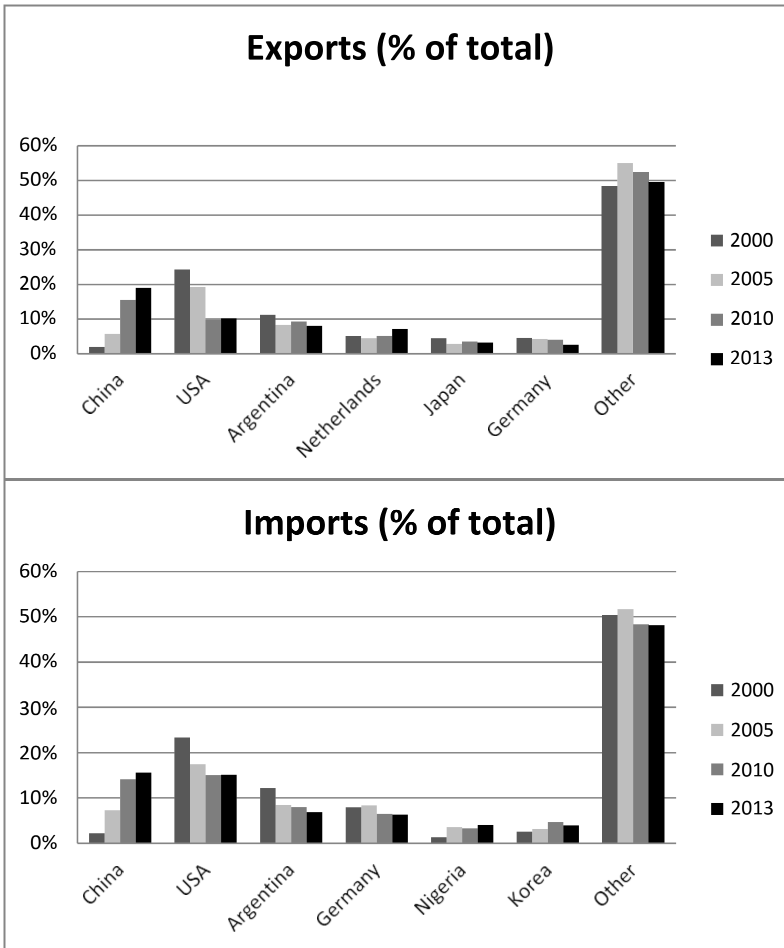
Source: Created by casewriter using data from Central Banco do Brasil, December 2014.

Exhibit 9 Composition of Brazil's Exports and Imports, 2000–2014 (US$ billions)



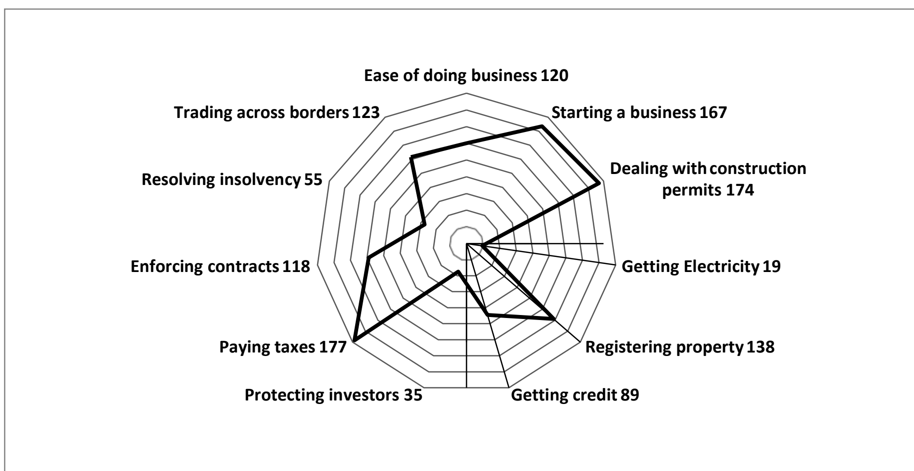
Source: Created by casewriter using data from Central Banco do Brasil, December 2014.

Exhibit 10 Brazil's Main Trading Partners



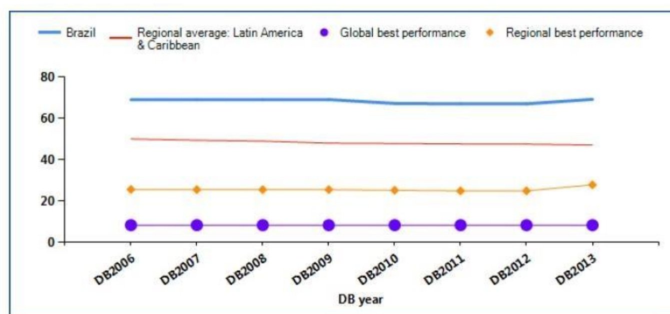
Source: Created by casewriter from data from UN Comtrade, December 2014.

Exhibit 11 Brazil's Ranking on *Doing Business 2015,* World Bank



Source: Adapted by casewriter using data from World Bank, *Doing Business 2015*.

Exhibit 12a Tax Rate as a Percentage of Profits



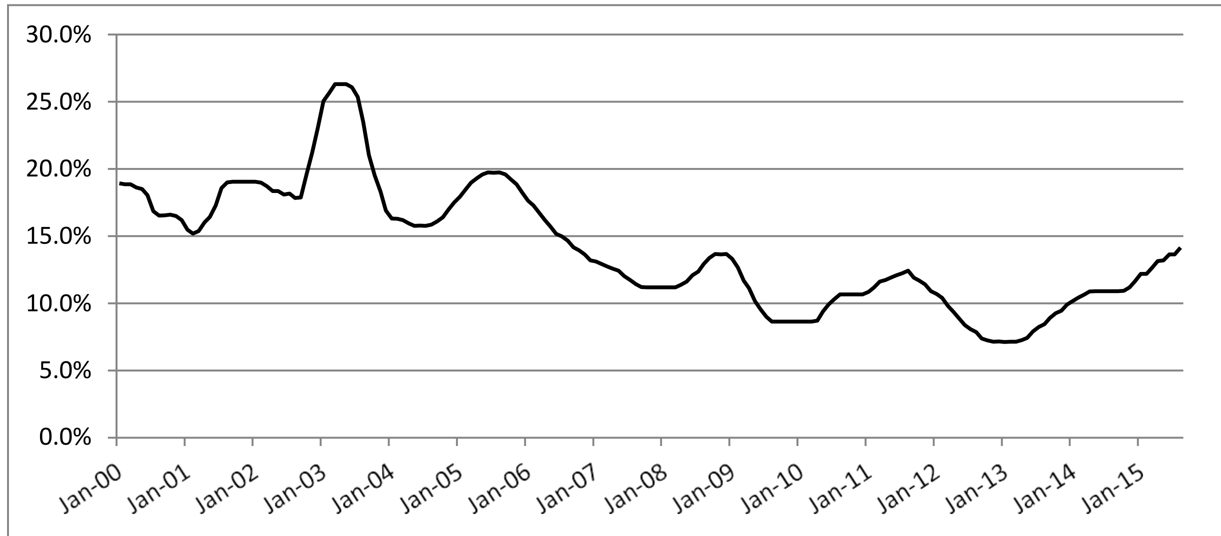
Source: "Economy Profile: Brazil," *Doing Business 2013*, World Bank, 2012.

Exhibit 12b Breakdown of Corporate Tax Rates and Administrative Burden in Sao Paulo, 2012

Tax	Payments (number)	Time (hours)	Statutory tax rate	Tax base	Total tax rate
ICMS (similar to VAT)	1	1374	18%	value added	…
PIS/COFINS (similar to VAT)	1	…	9%	value added	…
IPI (similar to VAT)	1	…	20%	value added	…
Employer-paid social security contributions (INSS)	1	490	20%	gross salaries	22.56
Employee-paid social security contributions (INSS)	0	…	11%	gross salaries	0
Corporate income tax (IRPJ)	1	736	15% +10% surchange on taxable income above $240,000	taxable profit	18.22
Employer-paid payroll tax	1	…	9%	net salaries	9.29
Employer-paid severance contribution (FGTS)	0	…	8%	net salaries	8.45
Social constribution (CSLL)	1	…	9%	taxable profit	6.56
Property tax	1	…	3%	market value of property	3.7
Tax on interest	0	…	15%-22.5%	interest income	…
Vehicle tax	1	…	2%	market value of vehicle	0.13
Total	9	2600			68.91

Source: "Economy Profile: Brazil," Doing Business 201: Going Beyond Efficiency. World Bank, 2014, pp, 79-81.

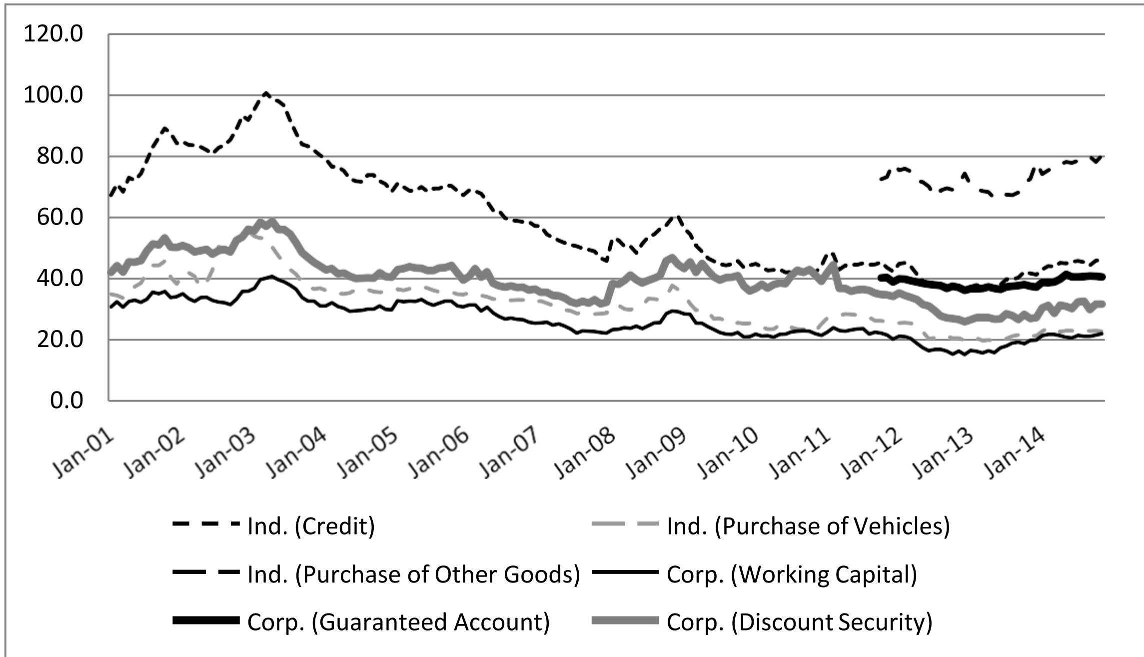
Exhibit 13 Selic Overnight Rate



Source: Adapted by casewriter using data from Banco Central do Brasil, December 2014.

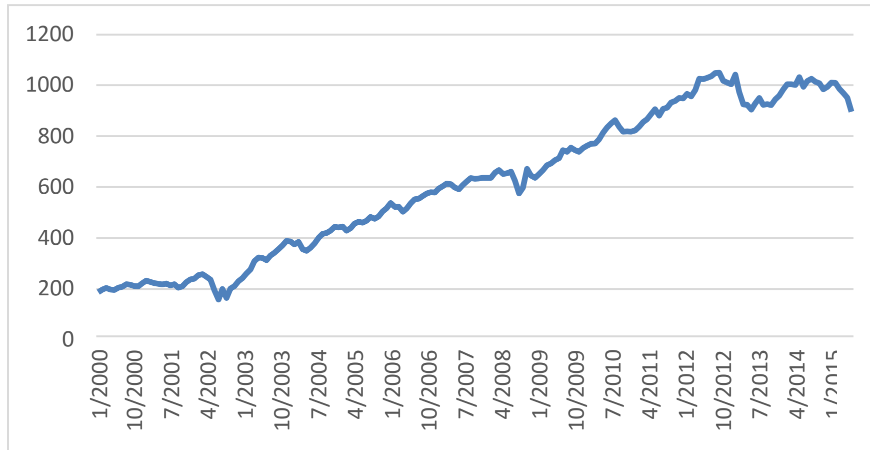
Note: The Selic rate (*Sistema Especial de Liquidação e Custodia*) is the Central Bank's overnight rate.

Exhibit 14 Brazil Interest Rates, Credit to Individuals and Corporations (monthly averages from 2001 to 2014)



Source: Created by casewriter using data from LCA Consultores, January 2015.

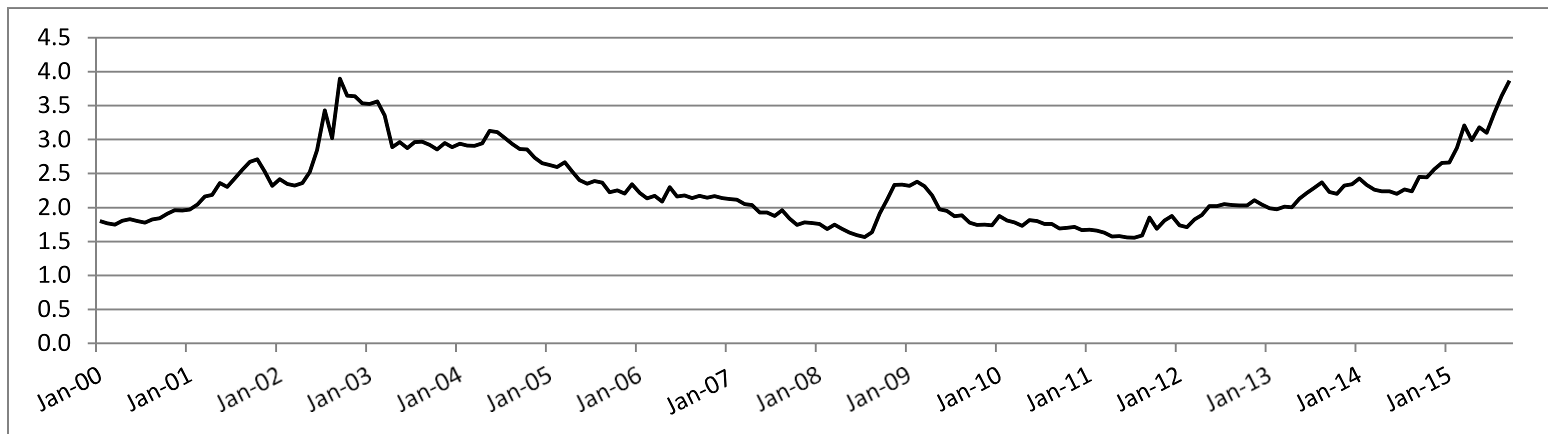
Exhibit 15 Emerging Market Bond Index (EMBI+), Brazil



Source: Datastream, accessed October 2015

Note: The Emerging Market Bond Index is a benchmark index that measures the total return on traded debt instruments issued in a foreign currency.

Exhibit 16 Real–U.S. Dollar Exchange Rate (end of period)



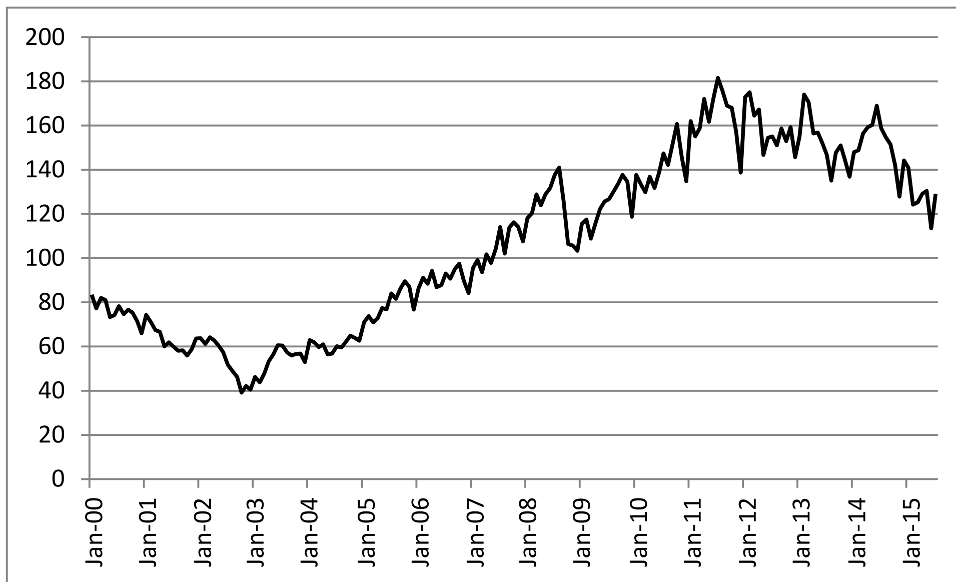
Source: Adapted by casewriter from Banco Central do Brasil data, September 2015.

Exhibit 17 Capital Controls in Brazil, 2008–2013

Announcement Date	Effective Date	Event
3/12/2008	3/17/2008	IOF tax of 1.5% introduced on fixed-income investments made by nonresidents.
10/22/2008	10/23/2008	IOF tax reduced to 0% on fixed-income investments following the collapse of Lehman Brothers.
10/19/2009	10/20/2009	IOF tax of 2% introduced on equities and fixed-income securities.
11/18/2009	11/19/2009	Introduction of a tax of 1.5% on American Depositary Receipts (ADRs) converted into local stocks.
10/4/2010	10/5/2010	IOF tax increased to 4% on fixed-income bonds and derivatives; remain 2% for equities.
10/18/2010	10/19/2010	IOF tax increased to 6% on fixed-income bonds and derivatives; remain 2% for equities.
3/28/2011	3/29/2011	IOF tax increased to 6% on overseas loans and bonds with maturities up to one year.
4/6/2011	4/7/2011	IOF tax extended to overseas loans and bonds with maturities up to 2 years.
7/26/2011	7/27/2011	Introduction of a tax of 1% on foreign exchange derivatives; legislation allows tax to be increased up to 25%.
12/1/2011	12/2/2011	IOF tax reduced to 0% on variable income instruments traded on the exchange and certain debentures.
2/29/2012	3/1/2012	IOF tax extended to cover overseas loans and bonds with maturities up to 3 years.
3/9/2012	3/12/2012	IOF tax extended to cover overseas loans and bonds with maturities up to 5 years.
5/21/2012	5/22/2012	IOF tax reduced from 2.5% to 1.5% for individual borrowers.
6/13/2012	6/14/2012	IOF tax reduced to only cover overseas loans and bonds with maturities up to 2 years.
12/4/2012	12/5/2012	IOF tax reduced to only cover overseas loans and bonds with maturities up to 1 year.
6/4/2013	6/5/2013	IOF tax on overseas loans and bonds reduced to 0%
6/12/2013	6/13/2013	IOF tax on foreign exchange derivatives reduced to 0%

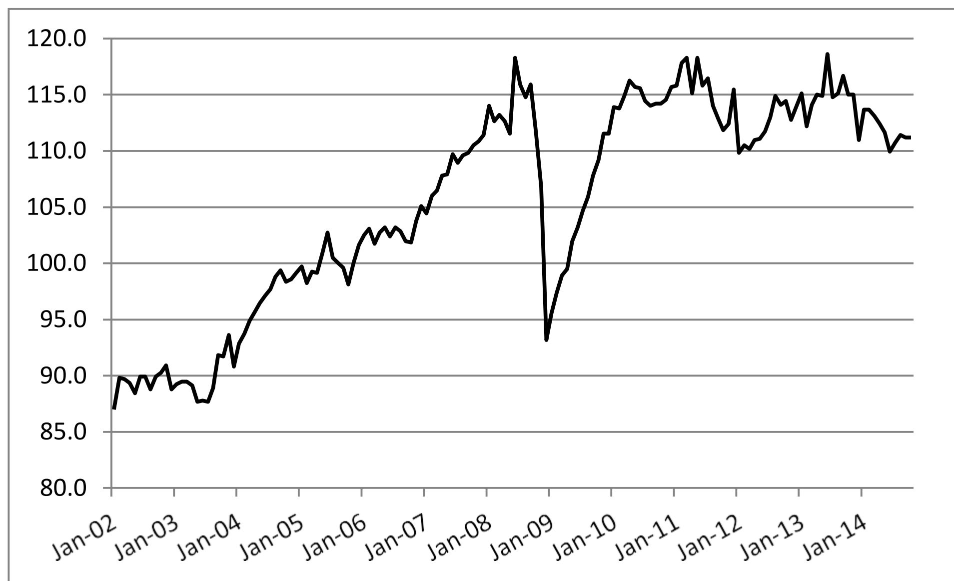
Source: Adapted by casewriter from Brittany A. Baumann and Kevin P. Gallagher, "Navigating Capital Flows in Brazil and Chile," Initiative for Policy Dialogue Working Paper Series, Columbia University, June 2012. Note: IOF (*Imposto Sobre Operações Financeiras)* is a tax placed on financial transactions.

Exhibit 18 Brazil's Unit Labor Cost Index (June 1994 = 100, US$)



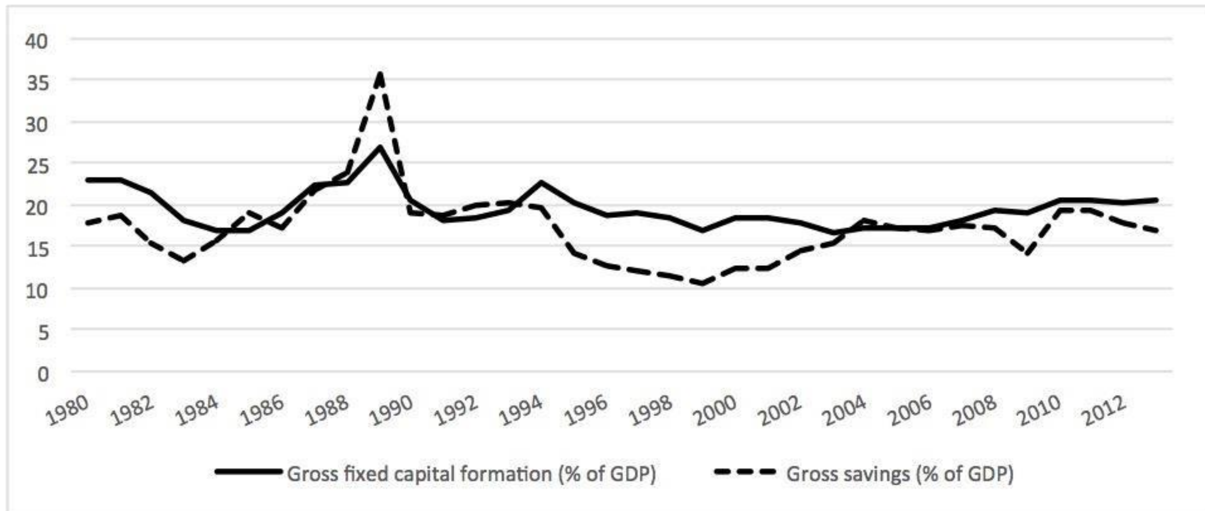
Source: Adapted by casewriter from data from Banco Central Do Brasil, September 2015.

Exhibit 19 Monthly Industrial Production Index (2005 = 100, seasonally adjusted)



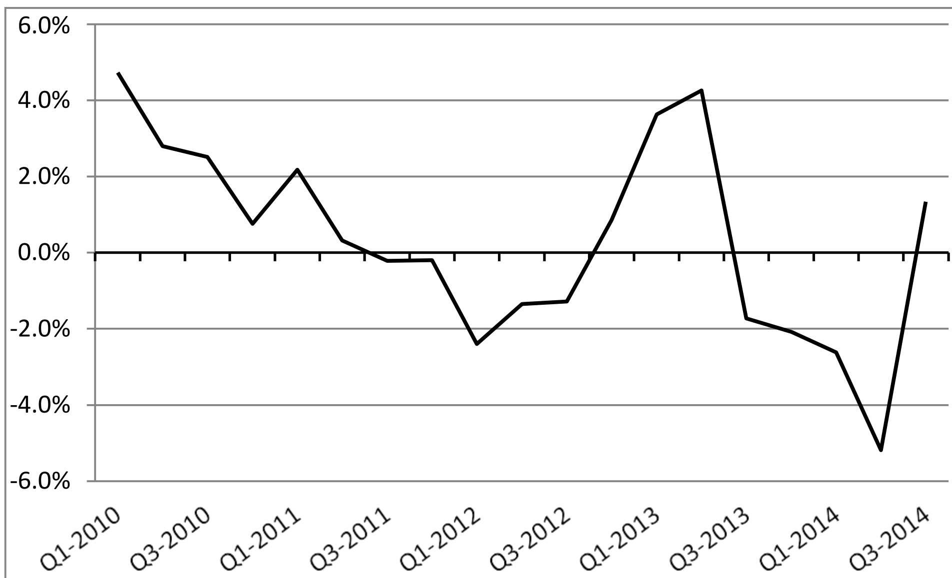
Source: Adapted by casewriter from *Instituto Brasileiro de Geografia e Estatistica* data, December 2014.

Exhibit 20 Gross Savings and Investments, Percent of GDP



Source: Created by casewriter using data from the World Bank Development Indicators Database, World Bank Group, December 2014.

Exhibit 21 Change in Fixed Capital Formation (seasonally adjusted, constant prices)



Source: Created by casewriter using data from OECD, "Main Economic Indicators—complete database," Main Economic Indicators (database), 2014, http://dx.doi.org/10.1787/data-00052-en, accessed December 2014.

Endnotes

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