

The Brazilian Economy in Transition: Macroeconomic Policy, Labor and Inequality

By Mark Weisbrot, Jake Johnston and Stephan Lefebvre*



Center for Economic and Policy Research
1611 Connecticut Ave. NW
Suite 400
Washington, DC 20009

tel: 202-293-5380
fax: 202-588-1356
www.cepr.net

* Mark Weisbrot is a Co-director and economist at the Center for Economic and Policy Research, in Washington D.C. Jake Johnston is a Research Associate and Stephan Lefebvre is a Research Assistant at CEPR.

Contents

Executive Summary 1

Introduction.....4

Social Progress Under the Workers’ Party4

Macroeconomic Policy10

Labor Market15

Conclusion20

References21

Acknowledgements

The authors would like to thank Dan Beeton and Milla Sanes for editing and helpful comments.

Executive Summary

The Brazilian economy has gone through a significant transformation during the past decade. Following nearly a quarter-century with very little growth in per capita GDP, there was a major change beginning in 2004. GDP per person (adjusted for inflation) grew at a rate of 2.5 percent annually from 2003-2014, more than three times faster than the 0.8 percent annual growth of the prior government (1995-2002). This growth rate was achieved in spite of the 2008-09 global financial crisis, which pushed Brazil into recession in 2009; and this comparison includes the slowdown of the past few years.

The past decade also saw new trends in the reduction of poverty and inequality. These pronounced positive changes were the result of the growth of income and employment, as well as the expansion of government social spending and programs. These factors along with large increases in the real minimum wage and in formal sector employment helped to increase the bargaining power of workers.

Since the Workers' Party came to power with President Lula taking office in 2003, poverty has been reduced by over 55 percent, from 35.8 percent of the population to 15.9 percent in 2012. Extreme poverty has been reduced by 65 percent, from 15.2 percent to 5.3 percent over the same time period. Over the last decade, 31.5 million Brazilians were lifted out of poverty and, of that number, over 16 million out of extreme poverty.

There were also large changes in how the gains from economic growth were distributed, as compared with the prior decade. For example, the top 10 percent of households received more than half of all income gains between 1993-2002, but this fell to about one-third for 2003-2012. The biggest gainers were the 40 percent below the median: they nearly doubled their share of income gains from 11.3 to 21.1 percent.

Increased economic growth was the main contributor to Brazil's reduction of poverty and inequality over the past decade. But government programs also played an important role.

In 2003 the Brazilian government introduced the *Bolsa Familia* program, building on a previous conditional cash-transfer program. Since 2003, expenditures on *Bolsa Familia* in real (inflation-adjusted) Reais increased from 4.8 billion to 20.7 billion, moving from 0.2 percent of GDP to 0.5 percent of GDP. The focus is on helping the extremely poor, and the program remains well targeted.

As the expenditures on *Bolsa Familia* have increased, so has the number of individuals covered by the program. From 2003 to 2012 the number of people covered by *Bolsa Familia* benefits increased from 16.2 million to 57.8 million. As a percent of the population, coverage increased from below 9 percent in 2003 to nearly 29 percent in 2012.

For those in extreme poverty in 2011, *Bolsa Familia* represented over 60 percent of their income, compared to just 10.5 percent in 2003 when the program was first instituted; for the poor, the increase is from 3.1 percent to 17.6 percent of their income.

For the central government, social spending has consistently increased since 2003, rising from 13 percent of GDP to over 16 percent in 2011, the last year for which data is available. Given that annual GDP growth during this period was nearly twice as fast as during the prior 25 years, this is a large increase in spending as compared with past governments.

Macroeconomic Policy

From 2010 to 2011, world GDP growth fell and the growth of world trade fell even more sharply. As a result of these external changes, the real value of Brazil's exports grew by only 4.5 percent in 2011 and 0.5 percent in 2012, as compared to 11.5 percent in 2010. This had a significant effect on economic growth.

At the same time, government macroeconomic policy began to slow the economy in 2010, with a series of interest rate hikes in April, which took policy rates from 8.75 in March 2010 to 12.50 in July 2011. The government also instituted "macroprudential measures" which slowed the growth of credit.

In April 2013, the Central Bank initiated another cycle of raising interest rates that lasted one year. Government officials noted at the time that "monetary policy as well as fiscal policies are being tightened despite the fact that growth recovery has only recently begun." What followed was negative growth in the third quarter of 2013, and a recession in the first half of 2014.

These monetary policy responses indicate that the Central Bank has sometimes been too willing to sacrifice economic growth in order to push inflation down, even when the inflation comes from external sources (e.g. commodity prices in 2011); and when slowing the economy does little or nothing to reduce inflation, as has been the case in recent years.

Brazil took significant steps toward developing an industrial policy during the past decade. Disbursements from the BNDES (Brazil's National Development Bank) increased from 2.2 percent

of GDP in 2005, to nearly 4 percent in 2013. In total, priority sectors for Brazil's industrial policy received about 80 percent of BNDES's disbursements between 2006 and 2012.

The Labor Market

Both unemployment and informality – the percentage of workers in the informal sector – have decreased considerably over the past decade. Unemployment peaked at 13.0 percent in 2003 and has declined pretty steadily, except for some temporary upticks during recession, to 5.0 percent today – a historic low.

The percentage of workers employed in the informal sector has fallen sharply from 22.5 in December 2003 to 13.3 percent in August 2014. This shift toward formal sector employment is important for protections such as pensions, sickness and disability benefits, paid annual leave, and regulation of working hours. Workers in the formal sector can also get access to credit cards.

For 2003-2014, the real minimum wage increased in Brazil by 76.2 percent. This was a major contributor to the decline in inequality over the past decade.

Between 2000 and 2012, unemployment insurance coverage increased by 99 percent.

The rise of real wages was also very important over the past decade. Since 2003 average real wages have grown by 34 percent. It is important to note that this real wage growth was maintained even after the economy began to slow in 2011. This indicates that there may have been an institutional change in the bargaining power of workers in Brazil, which could continue to contribute to reducing inequality in the future.

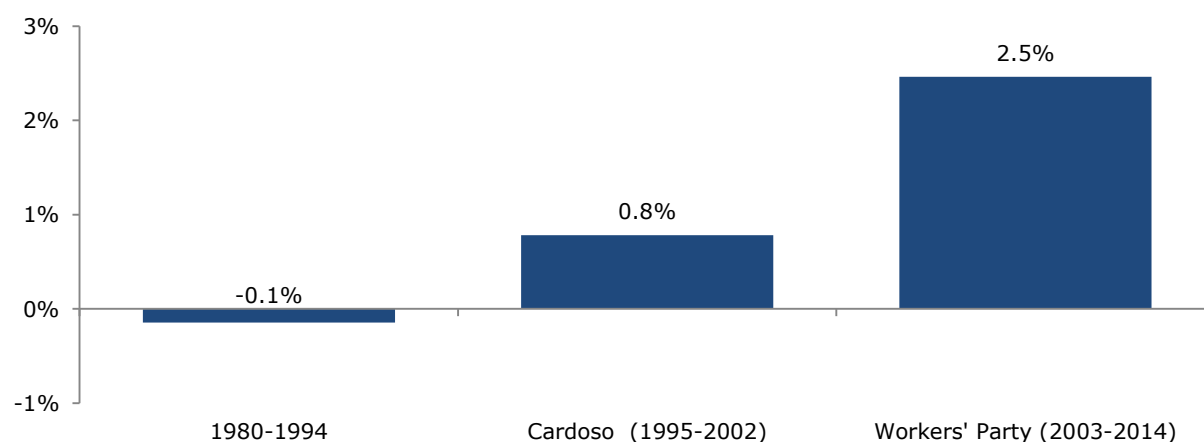
A number of analysts today see the recent wage growth as a threat to the economy because it is the source of too much inflationary pressure. In this view, the labor market is “too tight,” and monetary policy should be tightened until wage growth is brought down as a result of higher unemployment. However, as the data in this report indicate, there is still slack in the labor market despite continued low headline unemployment numbers. Neither monetary nor fiscal tightening makes sense as a tool to reduce inflation in these circumstances; unless they induce a serious, prolonged recession or depression, these policies are unlikely to reduce inflation by weakening the labor market.

Introduction

Brazil's economy fundamentally changed in the 2000s, about a year after the Workers' Party won the presidency. Following nearly a quarter-century with very little growth in per capita GDP, there was a major change beginning in 2004. This can be seen in **Figure 1**. GDP per person (adjusted for inflation) grew at a rate of 2.5 percent annually from 2003-2014, more than three times faster than the 0.8 percent annual growth of the prior government (1995-2002). This growth rate was achieved in spite of the 2008-09 global financial crisis, which pushed Brazil into recession in 2009; and this comparison includes the slowdown of the past few years as well.

Much of the last decade's turnaround, as well as the recent slowdown, was due to changes in macroeconomic policy, which will be examined below. The past decade also saw new trends in the reduction of poverty and inequality. These pronounced positive changes were the result of the growth of income and employment, as well as the expansion of government social spending and programs. These factors along with large increases in the real minimum wage and in formal sector employment helped to increase the bargaining power of workers. In what follows, we will examine these changes in growth, employment and income distribution, with a view toward understanding their causes and what policy conclusions can be drawn from them.

FIGURE 1
Real GDP Per Capita, Average Annual Change



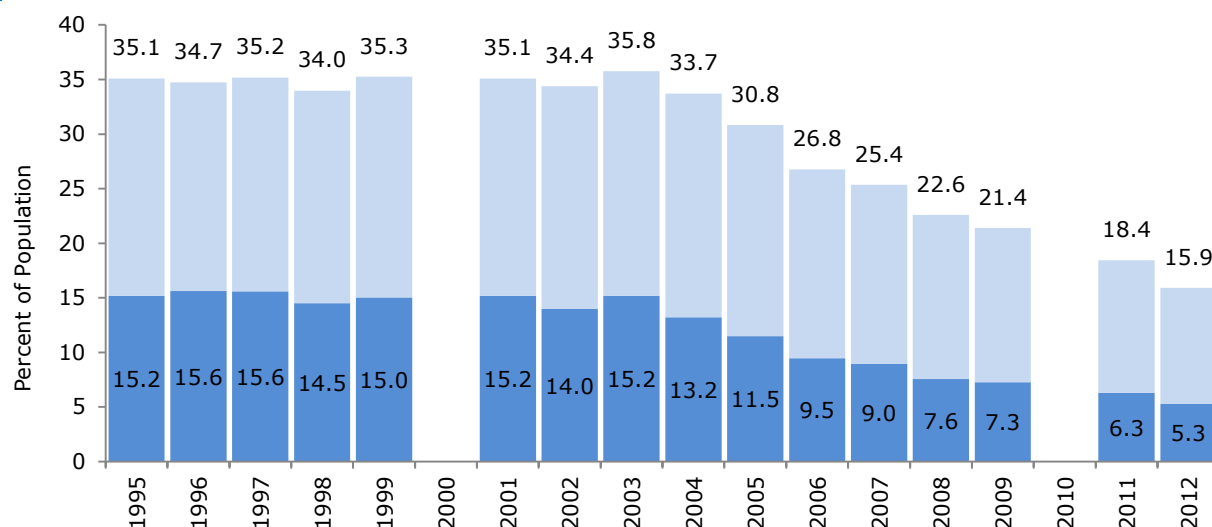
Source: IMF (2014a).

Social Progress Under the Workers' Party

Since the Workers' Party came to power with President Lula taking office in 2003, poverty has been reduced by over 55 percent, from 35.8 percent of the population to 15.9 percent in 2012. Extreme poverty has been reduced by 65 percent, from 15.2 percent to 5.3 percent over the same time

period. Over the last decade, 31.5 million Brazilians were lifted out of poverty and, of that number, over 16 million out of extreme poverty.¹

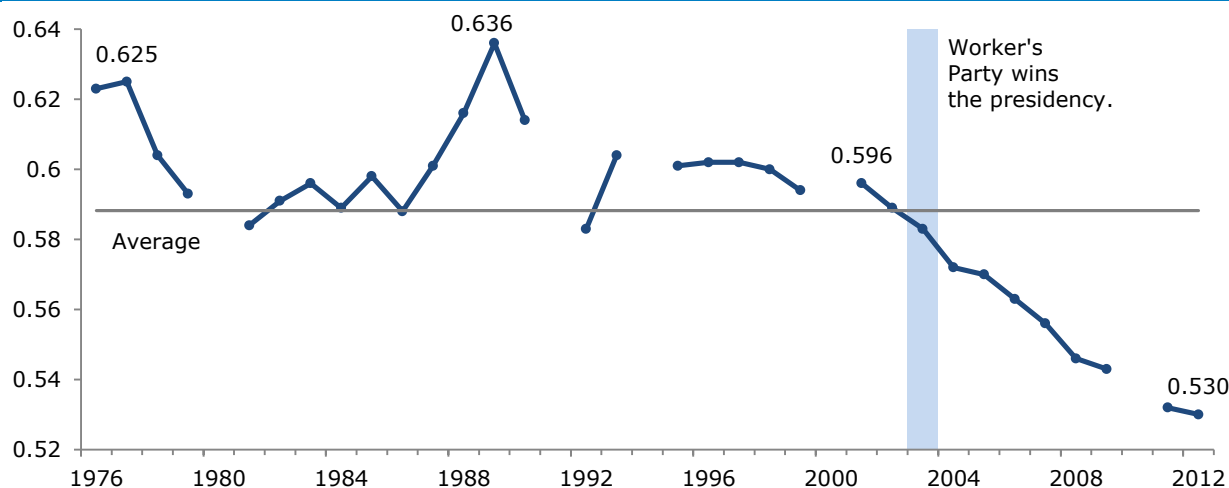
FIGURE 2
Poverty and Extreme Poverty



Source: IPEA (2014a-b). Data is based on Brazil's annual household survey, which was not conducted in 1994, 2000 and 2010.

While Brazil remains an extremely unequal country in terms of income distribution, since 2003, the Gini coefficient has also been reduced. After remaining nearly constant for the decade prior, beginning in 2003, the Gini has fallen from 0.59 to 0.53.

FIGURE 3
Gini Coefficient



Source: IPEA (2014e).

1 IPEA (2014d-e).

Table 1 shows the growth of income by decile during the decade of PT government as compared with the prior decade. All but the top 10 percent experienced faster growth during the PT years; and income growth for the bottom deciles was much faster than for the higher-income sectors of the population.

TABLE 1

Average Annual Real Income Growth, by Deciles		
Decile	1993-2002	2003-2012
1	4.2%	6.3%
2	2.9%	6.4%
3	2.5%	6.2%
4	2.2%	5.9%
5	2.2%	5.6%
6	2.1%	5.3%
7	2.1%	4.6%
8	2.3%	4.0%
9	2.4%	3.1%
10	2.8%	2.3%

Source: IPEA (2014f).

TABLE 2

Average Per Capita Household Income, by Percentile in Current 2013 Reais	
Decile	2012
0-10	137
10-20	281
20-30	391
30-40	518
40-50	657
50-60	748
60-70	942
70-80	1,228
90-90	1,753
90-100	4,762
95-100	6,734
99-100	13,279

Source: PNAD (2013).

To get a sense of what it means to be in each decile, we can look at the average per capita household income of various percentiles in 2013 measured in nominal Reais (**Table 2**). The average individual in the top decile has almost 35 times the income of an individual in the bottom 10 percent of the income distribution. An individual in the top 1 percent has nearly 100 times the income of those in the bottom 10 percent.

Table 3 shows the percentage of total income gains that households at different income levels accrued during the years 2003-2012 and for the prior decade. As can be seen, the bottom 10 percent took home a larger percentage of income gains, but only 1.5 percent compared to 1.2 percent in the decade prior. The top 1 percent lost some ground; after capturing 14.1 percent of all income gains from 1993-2002, they received 11.6 percent in the most recent decade. The top 10 percent dropped significantly, from getting more than half of all income gains (1993-2002), to about one-third (2003-2012).

TABLE 3

Fraction of Total Income Gains Accrued, by Income Percentiles					
Dates	Top 1 %	Next 9 %	Next 40%	Next 40 %	Bottom 10%
1993-2002	14.1%	37.3%	36.1%	11.3%	1.2%
2003-2012	11.6%	21.8%	44.0%	21.1%	1.5%

Source: IPEA (2014f).

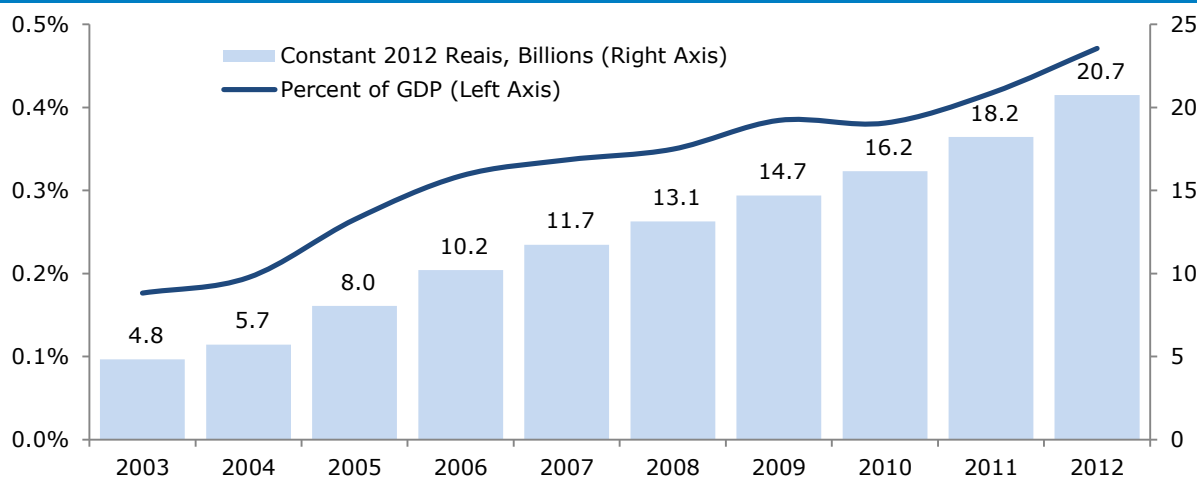
The next 40 percent got some of this, with their percent of income gains rising from 36.1 percent to 44 percent, while the 40 percent just above the poorest decile had the biggest proportional increase, nearly doubling their share of income gains from 11.3 percent to 21.1 percent.

These are large changes in the distribution of income gains for the years 2003-2012, as compared to the prior decade.

Brazil's macroeconomic performance throughout the decade contributed greatly to the reduction in both poverty and inequality. The OECD estimates that between 52 and 56 percent of the decline in poverty can be attributed to economic growth;² however other factors were also at play, including increasing pro-poor expenditures and transfers.

In 2003 the Brazilian government introduced the *Bolsa Familia* program,³ building on a previous conditional cash-transfer program. Since 2003, expenditures on *Bolsa Familia* in real (inflation-adjusted) Reais increased from 4.8 billion to 20.7 billion, moving from 0.2 percent of GDP to 0.5 percent of GDP. The focus is on helping the extremely poor, and the program remains well targeted.

FIGURE 4
Bolsa Familia Disbursements



Source: ECLAC (2014).

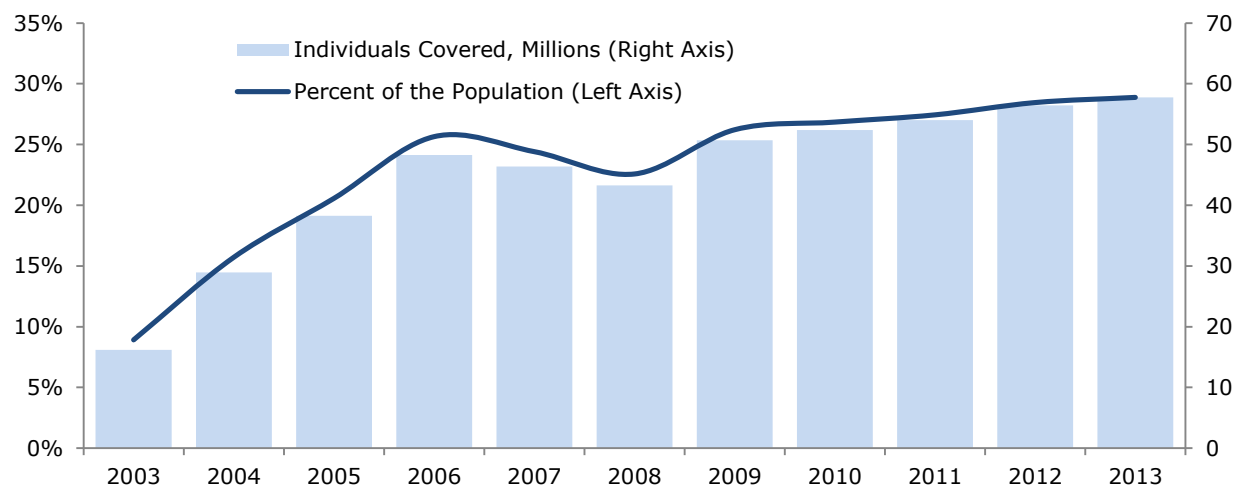
As the expenditures on *Bolsa Familia* have increased, so has the number of individuals covered by the program. From 2003 to 2012 the number of people covered by *Bolsa Familia* benefits increased from 16.2 million to 57.8 million. As a percent of the population, coverage increased from below 9 percent in 2003 to nearly 29 percent in 2012.

2 Arnold (2014).

3 *Bolsa Familia* is a government assistance program where cash payments are made to poor families. Payments are conditioned on children attending school and being vaccinated.

FIGURE 5

Bolsa Familia Coverage



Source: ECLAC (2014).

As can be seen in **Table 4**, from 2003 to 2011, the relative importance of the *Bolsa Familia* program has increased greatly, especially for those in poverty or in extreme poverty. For those in extreme poverty, *Bolsa Familia* represented over 60 percent of their income in 2011, compared to just 10.5 percent in 2003 when the program was first instituted; for the poor, the increase is from 3.1 percent to 17.6 percent of their income.

TABLE 4

Sources of Income, by Poverty Status

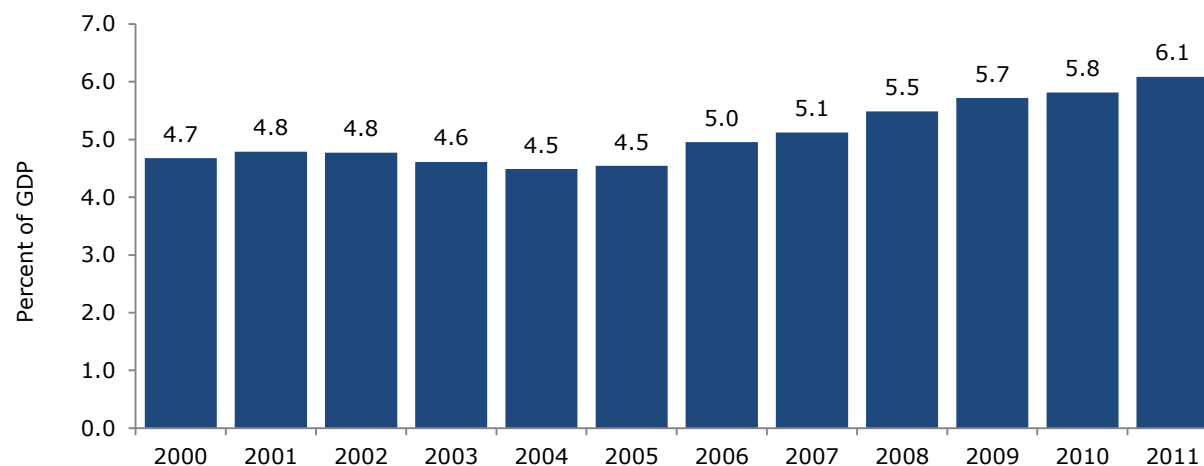
Source of Income	Extremely Poor		Poor		Vulnerable		Non-poor		Total	
	2003	2011	2003	2011	2003	2011	2003	2011	2003	2011
Labor Market	75.6	33.2	77.4	66.9	76.0	72.5	76.0	78.0	76.1	76.7
Social Security	5.8	1.2	13.8	9.3	19.1	19.9	18.3	17.6	18.3	18
BPC (Continuous Cash Benefit)	0.5	0.1	0.7	1.6	0.3	1.8	0.0	0.2	0.1	0.6
Bolsa Familia	10.5	60.9	3.1	17.6	0.4	2.5	0.1	0.1	0.3	0.9
Others	7.7	4.6	5.1	4.7	4.2	3.2	5.5	4.1	5.2	3.9

Source: IPEA (2014g).

Brazil has also increased social spending significantly in areas such as education. The percent of GDP dedicated to education spending has increased from 4.6 percent of GDP in 2003 to 6.1 percent of GDP in 2011. This includes spending not just by the central government, but by state governments, public enterprises and development banks.

FIGURE 6

Government Expenditure on Education, Percent of GDP



Source: INEP (2014).

It should be noted that, historically, Brazil’s university system is dominated by private, for-profit universities, which are generally of inferior quality to the public universities. This problem has continued in the last decade. As of 2012, 73 percent of Brazilian students were enrolled in private universities, as compared with 69 percent in 2001.⁴ There has also been a growing trend of online universities and other non-face-to-face education. In 2003, just over 1 percent of students were enrolled in these types of institutions; by 2012 that figure had risen to nearly 16 percent.⁵ The relative scarcity of public university education was one of the issues that spurred protests in mid-2013 and prompted the government to dedicate future income from oil revenues to education.

As can be seen in **Table 5**, school enrollment for 15-17 year olds has increased somewhat, as has the average years of study for those over 25. School enrollment for 18-24 year olds actually decreased from the early 2000s until 2011, but has increased since.

TABLE 5

Select Education Indicators

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
School Enrollment													
Ages 15-17	81.1	81.5	82.4	81.8	81.6	82.1	82.1	84.1	85.2		83.7	84.2	84.3
Ages 18-24	34.0	33.9	34.0	32.2	31.6	31.7	30.9	30.5	30.3		28.9	29.3	30.0
Average Years of Study													
Over 25 Years Old	6	6.1	6.3	6.4	6.5	6.7	6.9	7	7.2		7.4	7.6	7.7

Source: PNAD (2001-2009, 2011-2013).

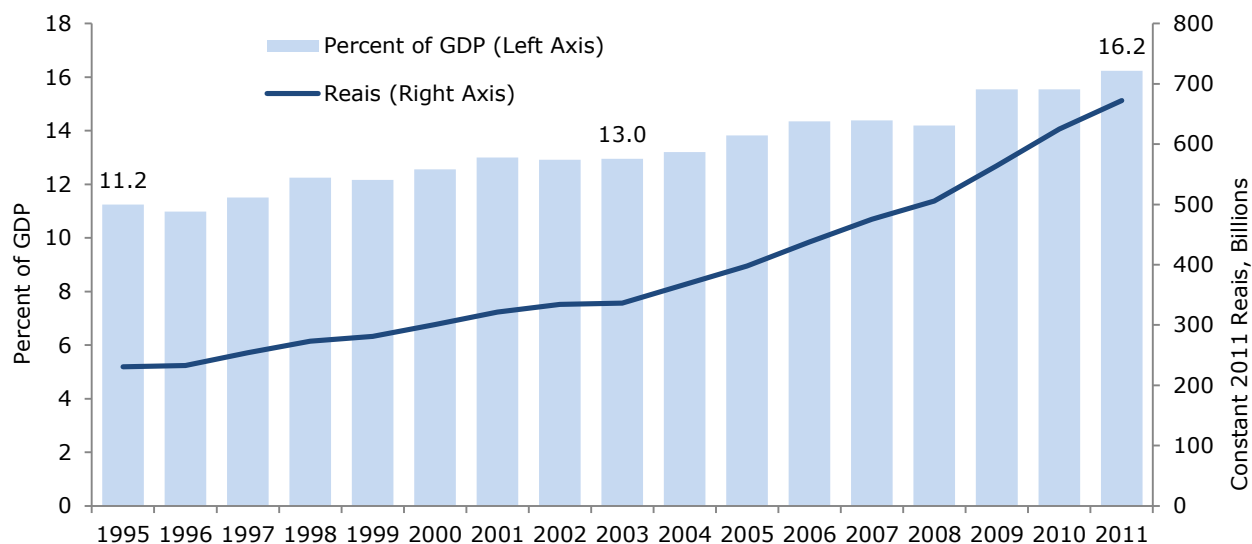
4 INEP (2014b).

5 Ibid.

Increased access to education has played a significant role in the reduction of inequality in Brazil, according to the OECD.⁶

Looking more narrowly at the central government, social spending has consistently increased since 2003, rising from 13 percent of GDP to over 16 percent in 2011, the last year for which data is available. Given that annual GDP growth during this period was nearly twice as fast as during the prior 25 years, this is a huge increase in spending as compared with past governments. The biggest part of this increased spending from the central government comes from increased expenditures on pensions.

FIGURE 7
Federal Government Social Spending



Source: IPEA (2012).

Macroeconomic Policy

As Serrano and Summa (2011) describe, Brazil’s macroeconomic policy in the 2000s was rooted in three principles: (1) Central Bank inflation targets (within a band), (2) a “very dirty” floating exchange rate regime, and (3) a target for a significant primary budget surplus. The Central Bank was able to make its inflation target consistently after 2004 primarily by allowing the exchange rate to appreciate as needed, thereby lowering import and export prices. In this view, the Central Bank’s use of policy interest rates does not control inflation in the usual way as presented in standard economic theory, because Brazil’s inflation is not generally demand-driven. For example, in the U.S., when the

⁶ Arnold (2014).

Federal Reserve raises interest rates in order to lower inflation, it reduces demand for the important real estate and auto sectors and some other borrowing, causing the economy to slow and unemployment to rise. This puts downward pressure on wages and therefore prices.

In Brazil, however, interest rate increases lower inflation by increasing net capital inflows and thereby appreciating the real, which lowers import and export prices. After 2004, the monetary authorities felt they had more policy space because of more favorable external conditions. This included a large reduction in short-term foreign debt relative to foreign exchange reserves, which accumulated rapidly after 2004.⁷ Another very important development was that the Brazilian government was able to pay off the IMF in 2005 and subsequently avoided much of the Fund's influence and conditionalities. Also, lower international interest rates allowed the Brazilian Central Bank to meet its inflation target with lower domestic interest rates (since it is the difference between international and domestic rates that affects capital inflows and outflows).

Nonetheless, the government still had policy decisions to make with regard to how much and how it would support, or not support, economic growth.

Brazil's fiscal policy stance is reflected in its fiscal impulse, an indicator that is calculated from the negative yearly change in the government's cyclically-adjusted primary balance.⁸ This method recognizes that in so far as fiscal policy is concerned, it is not the size of surpluses that matters but whether the surpluses are getting larger or smaller (i.e. a decrease in the surplus implies expansionary fiscal policy, a positive fiscal impulse). In general, fiscal impulse should be positive during times of slow growth and neutral or negative during times of high growth.

During the recession of 2009-10, the fiscal impulse was positive, indicating fiscal policy was counter-cyclical and expansionary. In 2011, stimulus was withdrawn in a context of slowing economic growth, with a fiscal impulse of -0.8 percent of GDP (see **Figure 8**). The aggregate effect of the government's spending and revenue programs then served as a large drag on the economy.

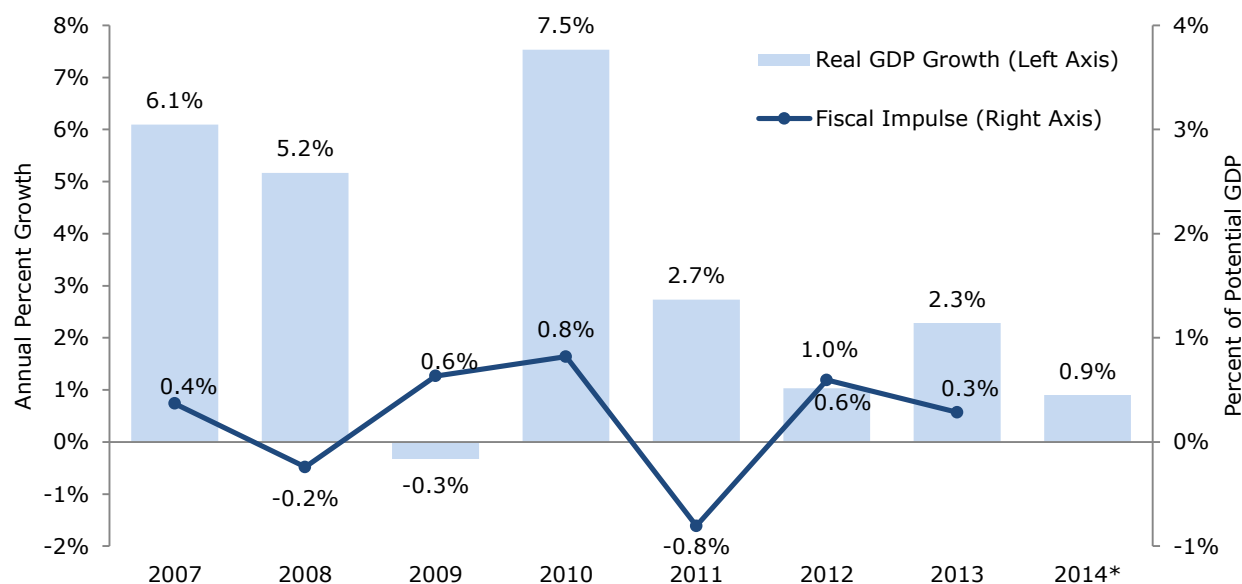
The fiscal impulse in 2012 and 2013 was 0.6 and 0.3 percent of GDP, respectively, indicating a return to an expansionary policy stance, but this was not enough to return the economy to its prerecession growth rates. Instead, the economy grew just 2.3 percent in 2013. In 2014 the economy went into recession in the first two quarters, and is expected to grow by 0.9 percent for this year.

7 See Serrano and Summa (2011) for more detail.

8 There are many different ways to calculate a government's budget balance, each producing a measurement that has a slightly different interpretation. Here we use the IMF's cyclically-adjusted structural balance, defined as the "Trend balance through an economic cycle, which is primary fiscal balance, stripped of the impact of cyclical movements in revenue and expenditure (for government usually only unemployment benefits)" (IMF 2014c).

FIGURE 8

Real GDP Growth and Fiscal Impulse



Source: IMF (2014a-b).

* Government forecast, see Sergio Lima and Gamarski (2014).

From 2010 to 2011, world GDP growth fell and the growth of world trade fell even more sharply. As a result of these external changes, the real value of Brazil’s exports grew by only 4.5 percent in 2011 and 0.5 percent in 2012, as compared to 11.5 percent in 2010.⁹ This had a significant effect on economic growth.

At the same time, government macroeconomic policy began to slow the economy in 2010, with a series of interest rate hikes beginning in April, which took policy rates from 8.75 in March 2010 to 12.00 in September 2011. The government also instituted “macroprudential measures” which had the effect of slowing the economy. These included: an increase in the minimum amount for banks deposit accounts; an increase in the minimum capital requirements for banks for some consumer loans; and an increase in the minimum payment percentage for credit cards. The rate of real growth of credit to individuals fell from 11.6 percent in 2010 to 5.9 percent in 2011.¹⁰

There was also a significant fiscal adjustment during 2011, when the structural primary surplus was increased from 1.9 percent of GDP in 2010 to 2.7 percent of GDP for 2011.¹¹

9 IBGE (2014b).

10 Serrano and Summa (2014).

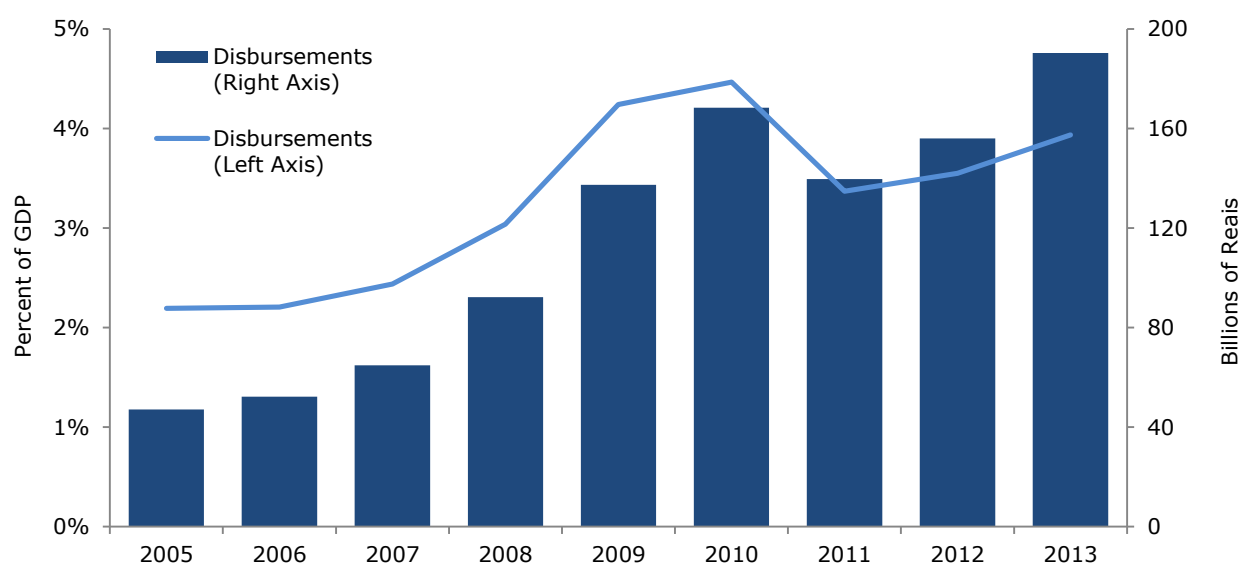
11 IMF (2014b).

Industrial Policy

Growth is not only affected by aggregate changes in the government budget balance (expenditures minus revenues); the specific type of spending also matters. During Lula's first term Brazil reactivated industrial policy as a tool for encouraging growth in priority industries. Previously, industrial policy had been abandoned under an IMF-imposed austerity program in 1983, with neoliberal policies dominating throughout the rest of the 80s and 90s, as in many other Latin American countries.

A key avenue through which the Brazilian government mobilizes resources for its industrial policy is the Banco Nacional de Desenvolvimento Econômico e Social (BNDES), a public development bank. As can be seen in **Figure 9**, disbursements from BNDES increased from 2.2 percent of GDP in 2005, to nearly 4 percent in 2013. In total, priority sectors for Brazil's industrial policy received about 80 percent of BNDES's disbursements between 2006 and 2012.¹² In the first two months of 2014, BNDES disbursed 28.5 billion Reais, a 35 percent increase over the same time period last year.¹³

FIGURE 9
BNDES Disbursements



Source: BNDES (2014).

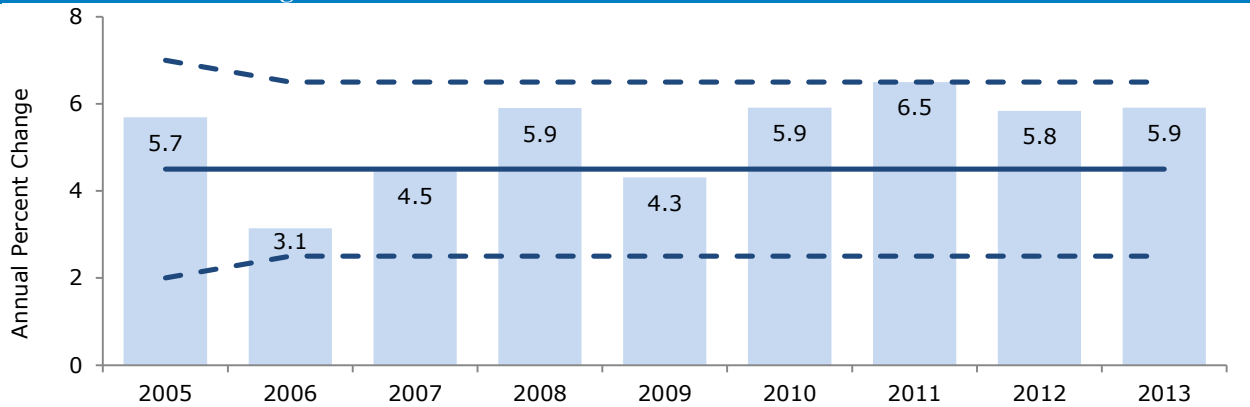
12 Ferraz (2014).

13 BNDES (2014).

The Central Bank’s Monetary Policy Responses

As we noted, Brazil’s monetary policy framework is based on targeting a publicly announced inflation rate. Despite large fluctuations in GDP growth over the last decade, inflation has remained within the central bank’s targeted band in all calendar years since 2004.

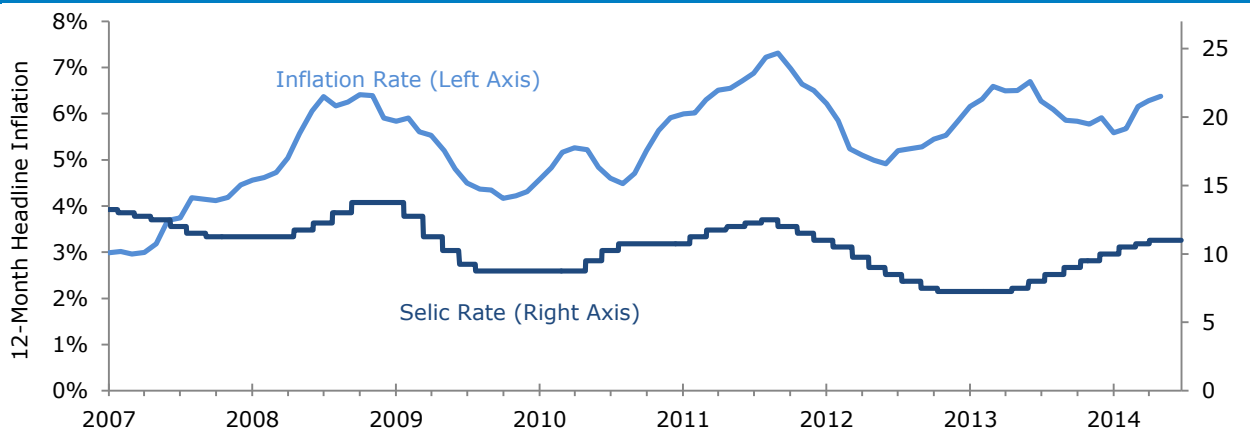
FIGURE 10
Annual Inflation with target bands



Source: BCB (2014a).

The Selic rate is the Brazilian Central Bank’s primary tool for monetary policy. The Selic rate was lowered in response to the domestic growth and liquidity consequences of the global recession, although the response was somewhat delayed. In the December 2008 meeting of Brazil’s Central Bank Council of Monetary Policy (COPOM) the basic interest rate was maintained at 13.75 percent despite sharp drops in economic activity in October and November of the same year. GDP shrank 4.2 percent in the last quarter of 2008 (15.7 percent at an annualized rate), and the Selic rate was then lowered sharply beginning in January of 2009, from 13.75 percent to 8.75 percent in 7 months.

FIGURE 11
12-Month Consumer Price Index Inflation and Selic Rate



Source: BCB (2014b-c).

While the economy slowed in 2011, eventually stalling in the third and fourth quarters, the Selic rate was steadily increased to 12.50 percent. Only in September 2011 was it lowered.

The sequence in 2013 was slightly different. GDP growth was beginning to recover following the economy's slow growth in the first half of 2012. GDP growth was high for one quarter, reaching an annualized rate of 6.6 percent in the second quarter of 2013. In April 2013 the Central Bank began to raise interest rates in a contractionary cycle that lasted one year. Government officials noted at the time that "monetary policy as well as fiscal policies are being tightened despite the fact that growth recovery has only recently begun."¹⁴ What followed was negative growth in the third quarter of 2013, and a recession in the first half of 2014.

These monetary policy responses indicate that the Central Bank has sometimes been too willing to sacrifice economic growth in order to push inflation down, even when the inflation comes from external sources (e.g. commodity prices in 2011); and when slowing the economy does little or nothing to reduce inflation, as has been the case in recent years. It is worth noting that during the recession that we now know began in the first quarter of 2014, the Selic rate was raised three times.

Labor Market

In addition to macroeconomic policy and social policies, another major factor in the reduction of poverty and inequality is the labor market. This is where some of the most important transformations of the past decade have taken place, and it appears that the economic slowdown of the past few years has not reversed them.

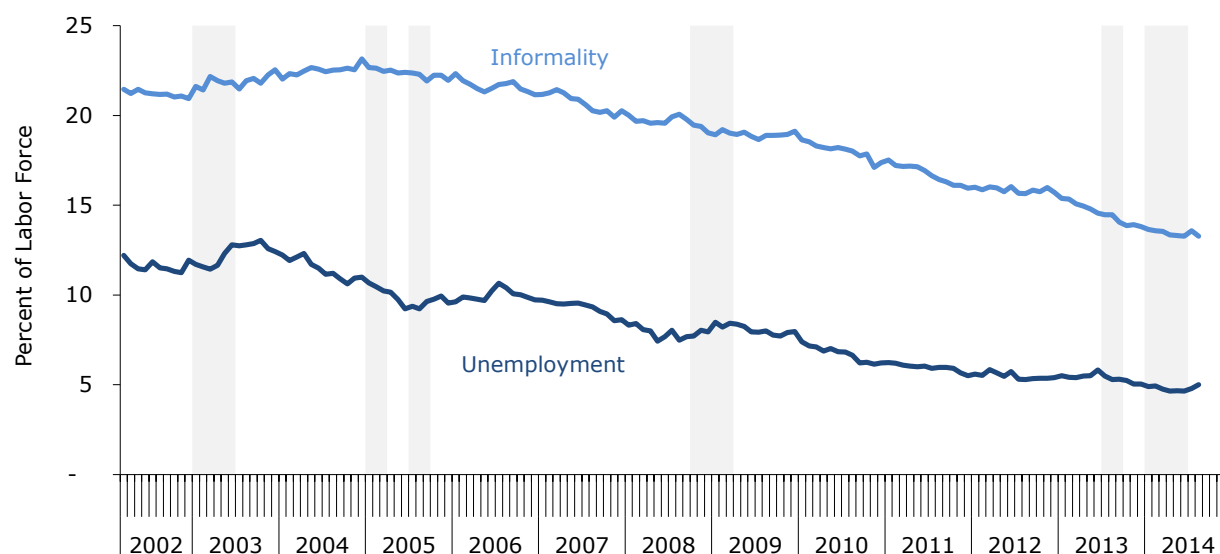
Both unemployment and informality – the percentage of workers with informal jobs - in the labor market increased during the 1990s, but those trends reversed from 2003 onward for unemployment, and from 2005 for informality. Unemployment reached 13.0 percent in 2003 before starting a downward trend that has lasted more than 10 years. Unemployment briefly increased in 2006 and 2008 due to the delayed impact of several quarters of negative growth in 2005 and the effects of the global recession in 2009.¹⁵

14 IMF (2013).

15 In this section, we use data from Brazil's monthly employment survey, which covers six metropolitan areas. This survey is being phased out, to be replaced by a national survey in 2015. The only national data currently available is released annually. Data from the annual household survey shows that in 2013 the national unemployment rate increased to 6.5 percent from 6.1 percent in 2012.

Informality, which also trended upward in the 1990s,¹⁶ turned around in 2005. The informality rate, which measures the percentage of non-registered workers as a total of the employed population,¹⁷ fell sharply from 22.5 in December 2003 to 13.3 percent in August 2014.

FIGURE 12
Unemployment and Informality (Seasonally Adjusted)



Source: IBGE (2014a).

Note: Shading indicates quarters with negative GDP growth relative to previous quarter.

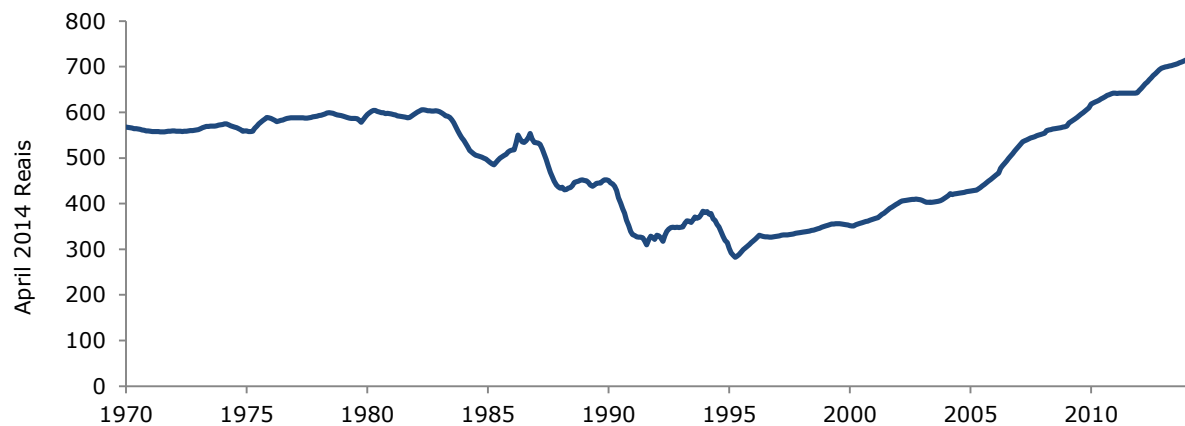
This shift toward formal sector employment is important for a number of reasons. From the point of view of employees, registering and using a signed labor card serves as a guarantee of benefits and protections like pensions, sickness and disability benefits, paid annual leave, and regulation of working hours.¹⁸ Workers in the formal sector can also get access to credit cards.

One of the most important labor market policies of the successive PT governments has been a commitment to increasing the minimum wage. Looking over the last 5 decades we see the real value of Brazil's minimum wage is higher now than it has ever been, at R\$ 716.8 per month, while it reached a low of R\$ 282.1 in 1995 after successive years of very high inflation. With the economy stabilized, the minimum wage started rising again, but the speed increased after 2005.

16 Estevão (2012).

17 Registered workers are those who have registered for and use a *Carteira de Trabalho e Previdência Social* (trans. Work and Social Security Card), and this roughly corresponds to formal sector workers. See Veras Soares (2005).

18 ILO and OECD (2011).

FIGURE 13**Real Minimum Wage, 12-Month Moving Average**

Source: IPEA (2014h).

The minimum wage was increased earlier than planned in 2009 as a response to the global recession. It was also raised significantly in 2012 and 2013, under the 2011 law that establishes norms for increasing the minimum wage based on economic growth in the previous two years and inflation in the previous year.¹⁹ For 2003-2014, the real minimum wage increased in Brazil by 76.2 percent.

The impact of increasing the minimum wage in Brazil extends beyond those workers earning at or near this level. For example, public pension benefits, welfare and unemployment insurance are tied to the level of the minimum wage.²⁰ The minimum wage also affects other wages and income from self-employment.²¹

Another gain for workers over the past decade has been expanded protection of unemployment insurance. Between 2000 and 2012, unemployment insurance coverage increased by 99 percent.²²

Unemployment has continued to decline even as growth has slowed considerably. During the global recession, unemployment in Brazil peaked at 8.4 percent. It fell steadily during the recovery, rose slightly at the end of 2012 and beginning of 2013, but then continued its downward trend, averaging 4.9 percent in the first quarter of 2014, a historic low. This can be seen in **Figure 12** above.

The continued decline in unemployment amid slowing growth over the last 3 years has been rather surprising. There are a number of possible contributing factors. One could be the effect of the particular balance of growth that Brazil is experiencing, namely strong service sector growth

19 Barbosa de Melo et al. (2012).

20 Berg (2009).

21 Summa (2014).

22 Summa (2014).

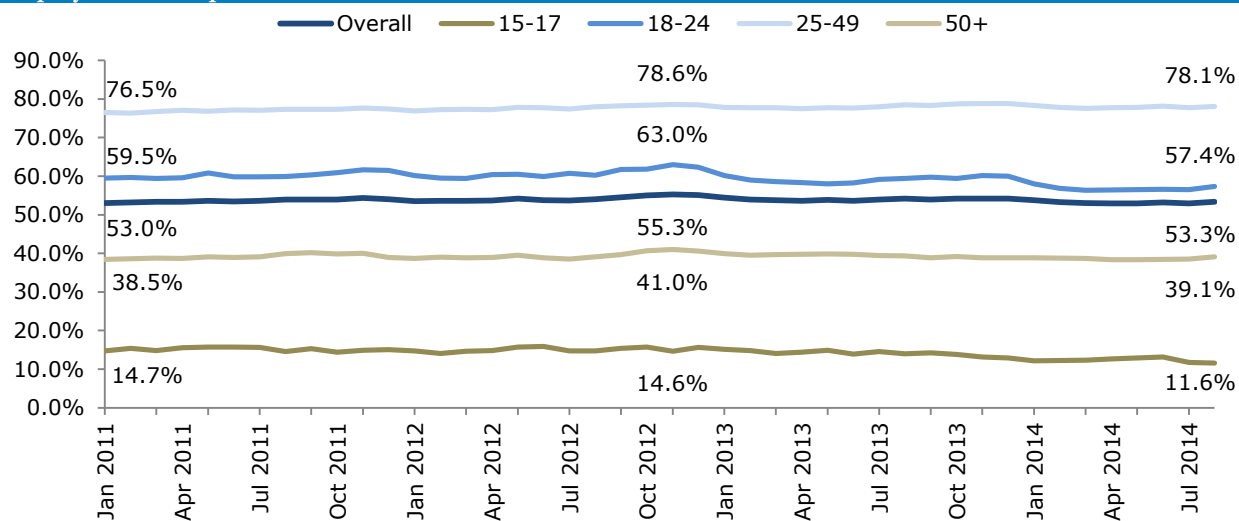
offsetting weak growth in the industrial sector.²³ Since the service sector is much more labor-intensive than manufacturing, the shift to services can contribute to maintaining lower unemployment levels even as overall economic growth is slowing. Another factor could be the effect of payroll tax cuts that have made it easier for firms to avoid layoffs.²⁴

Another factor is lower labor force participation. Workers are only counted as unemployed if they are in the labor force, i.e. actively seeking work. The unemployment rate can decline despite lower job creation, if there is a slowdown or decline in labor force participation. The labor force participation rate peaked at 58.1 percent in November of 2012, and fell to 56.2 percent in August of 2014.

Clearly declining labor force participation during the past two years is part of the reason that unemployment has not increased as the economy slowed. This means that the continued near-record-low unemployment rate (currently at 5.0 percent), does not indicate that the labor market or the availability of jobs has remained as strong as it was before the slowdown.

Another way to look at what is happening in the labor market is the employment to population ratio (EPOP), shown in **Figure 14** below for various age groups. The overall rate is 53 percent in the beginning of 2011, peaks at 55.3 percent in November 2012, and then drops back to 53.3 percent in August 2014. This is especially pronounced for 18-24 year olds, the group's EPOP declined from 63 percent to 57.4 percent over the same time period.

FIGURE 14
Employment to Population Ratio



Source: IBGE (2014) and Authors' calculations.

23 IMF (2013), pg. 65.

24 Ibid.

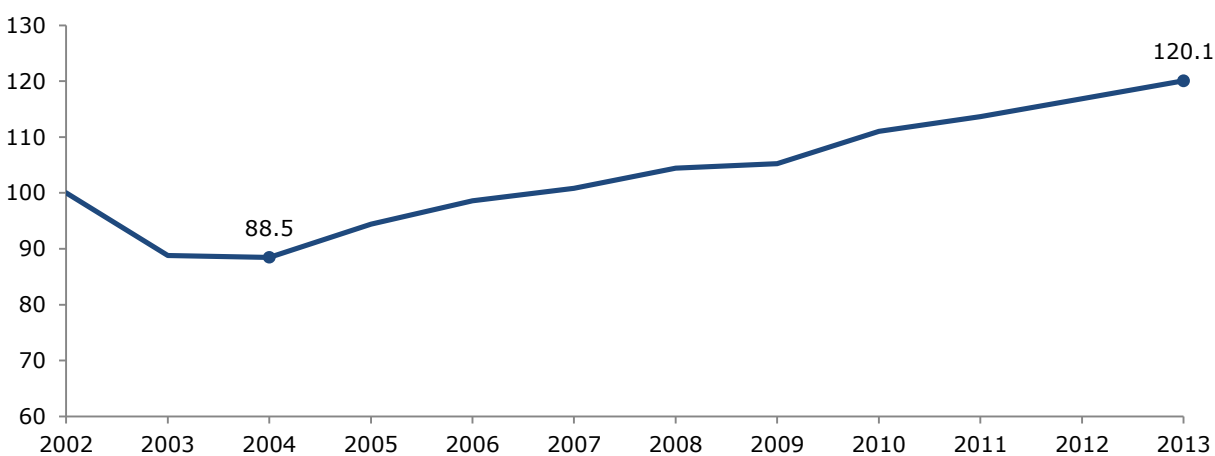
This does not mean that all of the declining labor force participation is due to the reduced availability of jobs. People can leave the labor force, especially temporarily, for other reasons.²⁵

For example, youth entry into the labor market has slowed due to increased access to education through improvements in the national educational system, increased provision of scholarships and better credit conditions for students. This would contribute to lower unemployment, somewhat more than proportionally, because on average younger individuals and those with less education experience higher levels of unemployment. Indeed, from 2000 to 2010 access to education for those aged 18-24 more than doubled, from 9.1 to 18.7 percent. From 2001 to 2012 university enrollment increased by over 130 percent from 3.04 million to 7.04 million.²⁶ As can be seen in **Table 5** (earlier in the paper), school enrollment for both 15-17 year olds and 18-24 year olds has increased in the last 3 years.

More striking, and at least as important, real wage growth has maintained its pre-slowdown pace. This can be seen in **Figure 15**, which shows the real average wage since 2002. Real wages fell in 2003 and 2004 and did not really begin to rise until 2005. But they maintained the same rate of growth even after the economy began to slow in 2011.²⁷ Overall, real wages have increased by 35 percent since 2003.

FIGURE 15

Average Real Wages, Index



Source: IBGE (2014a).

This is probably the strongest indication that there have been institutional changes that have increased the bargaining power of labor. The economic slowdown of the past three years has not

25 See Salas (2013) for an analysis of the relation between the social safety net and unemployment in Mexico.

26 INEP (2014b).

27 See Summa (2014).

reversed this shift. It is therefore likely that going forward, these changes in labor's bargaining power will continue to reduce income inequality in the future.²⁸

Finally, it is worth addressing the current concerns of some analysts who see the recent wage growth as a threat to the economy because it is the source of too much inflationary pressure. In this view, the labor market is "too tight," and monetary policy should be tightened until wage growth is brought down as a result of higher unemployment. However, as the data above indicate, there is still slack in the labor market despite continued low headline unemployment numbers. Neither monetary nor fiscal tightening makes sense as a tool to reduce inflation in these circumstances; unless they induce a serious, prolonged recession or depression, these policies are unlikely to reduce inflation by weakening the labor market.

Conclusion

Brazil's progress on social indicators for poverty and inequality since 2003, as well as the pronounced increase in economic growth and reduced unemployment appear to have resulted from significant policy changes that have begun to transform the economy. These include increases in social spending and targeted programs, large real increases in the minimum wage, positive changes in macroeconomic policy for most of the period, and changes in the labor market that have increased the bargaining power of labor. Most of these changes appear to be durable; they do not seem to be solely a product of a cyclical upswing. Although the economy has slowed over the last three years, as compared with 2003-2010, this appears to be partly a result of pro-cyclical macroeconomic policies, including overly tight monetary and fiscal policies. If these policies are adjusted, and with continued progress in industrial policy and public investment to increase productivity, it should be possible for the Brazilian economy to maintain and possibly increase its growth rates from the past decade, and further reduce poverty and inequality.

28 This is the conclusion of Summa (2014), who provides other detailed evidence to support this view.

References

- Agência Brasileira de Desenvolvimento Industrial (ABDI). 2014a . “Relatorio de Acompanhamento Das Medidas Sistemicas.” June.
<http://www.brasilmaior.mdic.gov.br/images/data/201407/11072c26555a0e2d8f022e6cf5df7672.pdf>.
- _____. “Relatorio de Acompanhamento Das Agendas Estrategicas Setoriais.” June 2014b.
<http://www.brasilmaior.mdic.gov.br/images/data/201408/f53da4b7adfdd965ddc58718d572ea51.pdf>.
- Arnold, Jens and João Jalles. 2014. “Dividing the Pie in Brazil: Income Distribution, Social Policies and the New Middle Class.” France: Organisation for Economic Co-operation and Development (OECD). January. <http://dx.doi.org/10.1787/5jzb6w1rt99p-en>.
- Banco Central do Brasil (BCB). 2014a. “Inflation Targeting in Brazil.”
<https://www.bcb.gov.br/pec/metas/InflationTargetingTable.pdf>.
- _____. 2014b. “432 – Interest rate – Selic target.” <https://www3.bcb.gov.br/sgspub/>
- _____. 2014c. “433 – Broad National Consumer Price Index (IPCA).”
<https://www3.bcb.gov.br/sgspub/>.
- Barbosa de Melo, Frederico Luiz; Ademir Figueiredo; Adhemar S. Mineiro and Sérgio Eduardo Arbulu Mendonça. 2012. “Social Justice and Growth: The Role of the Minimum Wage.” Geneva: International Labor Organization (ILO). <http://apirnet.ilo.org/resources/social-justice-and-growth-the-role-of-the-minimum-wage>.
- Barros, Ricardo, Mirela de Carvalho, Samuel Franco and Rosane Mendonça. 2009. “Markets, the State and the Dynamics of Inequality: Brazil’s Case Study.” New York: United Nations Development Programme (UNDP). http://www.revistahumanum.org/revista/wp-content/uploads/2012/02/14_RPPLAC_ID.pdf.
- Barbosa Filho, Fernando de Holanda. 2012. “Income Inequality and Labor Market Dynamics in Brazil.”OECD. June 18. <http://www.oecd.org/eco/labour/50573016.pdf>.
- Berg, Janine. 2009. “Brazil: The Minimum Wage as a Response to the Crisis.” ILO.
http://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/article/wcms_limd3_11_en.pdf.
- Brazilian Development Bank (BNDES). 2014. “The Evolution of the BNDES’ Disbursements.”
http://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/The_BNDES_in_Numbers/#The_Evolution_of_the_BNDES__Disbursements.

Brunelli, Andre de Queiroz. 2014. "Two Decades of Structural Shifts in the Brazilian Labor Market: assessing the unemployment rate changes through stylized facts on labor supply and labor demand." Banco Central do Brasil. February.
<http://www.bcb.gov.br/pec/wps/ingl/wps348.pdf>.

Departamento Intersindical de Estatística e Estudos Socioeconomicos (DIEESE). 2012. "Cesta Básica de Alimentos." December.
<http://www.dieese.org.br/analisecestabasica/analiseCestaBasica201212.html>.

Economic Commission on Latin America and the Caribbean (ECLAC). 2014a. "Base de datos de programa de protection social no contributive en America Latina y el Caribe."
<http://dds.cepal.org/bdptc/programa/?id=6>.

_____. 2014b. "According to ECLAC, Improving Minimum Wages Helps to Reduce Inequality." August. <http://www.cepal.org/cgi-bin/getProd.asp?xml=/prensa/noticias/comunicados/2/53452/P53452.xml&xsl=/prensa/tpl-i/p6f.xsl&base=/prensa/tpl-i/top-bottom.xsl>.

Estevão, Marcello and Irineu de Carvalho Filho. 2012. "Institutions, Informality, and Wage Flexibility: Evidence from Brazil." International Monetary Fund. March.
<https://www.imf.org/external/pubs/ft/wp/2012/wp1284.pdf>.

Ferraz, João Carlos and David Kupfer and Felipe Silveira Marques. 2014. "Industrial policy as an effective development tool: Lessons from Brazil." Chapter 10 in "Transforming economies: Making industrial policy work for growth, jobs and development," José Manuel Salazar-Xirinachs, Irmgard Nübler and Richard Kozul-Wright (editors). Geneva: International Labour Office (ILO).

Instituto Brasileiro de Geografia e Estatística (IBGE). 2014a. "Sumário das tabelas disponíveis." http://ibge.gov.br/home/estatistica/indicadores/trabalhoerendimento/pme_nova/defaulttab_hist.shtm.

_____. 2014b. "Quarterly National Accounts." <http://www.ibge.gov.br/english/estatistica/indicadores/pib/defaultcnt.shtm>.

Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP). 2014. "Percentual do Investimento Total em Relação ao PIB por Nível de Ensino." http://portal.inep.gov.br/web/guest/estatisticas-gastoseducao-indicadores_financeiros-p.t.i._nivel_ensino.htm.

_____. 2014b. "Censo da Educação Superior." http://portal.mec.gov.br/index.php?option=com_docman&task=doc_details&gid=14154&Itemid=.

Instituto de Pesquisa Econômica Aplicada (IPEA). 2012. “Gastos sociais federais somaram R\$ 672 bi em 2011.” April 12.
http://www.ipea.gov.br/portal/index.php?option=com_content&view=article&id=16312.

_____. 2014a. “Pobreza - número de pessoas pobres.” <http://www.ipeadata.gov.br/>.

_____. 2014b. “Pobreza - número de pessoas extremamente pobres.”
<http://www.ipeadata.gov.br/>.

_____. 2014c. “Pobreza - taxa de extrema pobreza.” <http://www.ipeadata.gov.br/>.

_____. 2014d. “Pobreza - taxa de pobreza.” <http://www.ipeadata.gov.br/>.

_____. 2014e. “Renda - desigualdade - coeficiente de Gini.” <http://www.ipeadata.gov.br/>.

_____. 2014f. “Renda domiciliar per capita - média por décimo da população - 1º - 10º.”
<http://www.ipeadata.gov.br/>.

_____. 2014g. “Bolsa Família Program: A Decade of Social Inclusion in Brazil.” Editors: Campello, Tereza and Marcelo Cortes Neri.

_____. 2014h. “Salário mínimo real.” <http://www.ipeadata.gov.br/>.

International Monetary Fund (IMF). 2012. “Brazil: 2012 Article IV Consultation – Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Brazil.” July.
<http://www.imf.org/external/pubs/ft/scr/2012/cr12191.pdf>

_____. 2013. “Brazil: Staff Report for the 2013 Article IV Consultation.” October.
<http://www.imf.org/external/pubs/ft/scr/2013/cr13312.pdf>.

_____. 2014a. “World Economic Outlook Database.” April, 2014.

_____. 2014b. “Fiscal Monitor.” April, 2014.

_____. 2014c. “Government Finance Statistics Manual 2014: Pre-Publication Draft.” March, 2014. Accessed September 3, 2014.

International Labour Organization and the Organization for Economic Co-operation and Development (ILO and OECD). 2011. “G20 Country Policy Briefs. Brazil: Share of formal employment continues to grow.” <http://www.oecd.org/els/48723896.pdf>.

- Kupfer, David and Marta Castilho, Esther Dweck and Marcelo Nicoll. 2013. "Different Partners, Different Patterns: Trade and Labour Market Dynamics in Brazil's Post-Liberalisation Period." OECD. April 18. http://www.oecd-ilibrary.org/trade/different-partners-different-patterns-trade-and-labour-market-dynamics-in-brazil-s-post-liberalisation-period_5k480c265kq1-en;jsessionid=2iu5nbfowkq68.x-oecd-live-01.
- Malinowski, Matthew. 2014. "Brazil Inflation Really at 8% Without Rouseff Fiddling." Bloomberg Businessweek. July 8, 2014. <http://www.bloomberg.com/news/2014-07-08/brazil-inflation-really-at-8-without-rousseff-fiddling-economy.html>.
- Malinowski, Matthew and Raymond Colitt. 2014. "Brazil Seeks to Boost Credit by \$66 Billion as Economy Lags." Bloomberg Businessweek: August 20. <http://www.businessweek.com/news/2014-08-20/brazil-central-bank-changes-rule-on-reserve-requirement-payments>.
- Ministerio do Planejamento (MoP). 2012. "11° Balanço Completo do PAC - 4 anos (2007 a 2010)." <http://www.pac.gov.br/sobre-o-pac/publicacoesnacionais/v/9807c50f>.
- _____. 2014a. "Sobre o PAC." <http://www.pac.gov.br/sobre-o-pac>.
- _____. 2014b. "10° Balanço Completo do PAC 2 (Janeiro - Abril 2014)." <http://www.pac.gov.br/sobre-o-pac/publicacoesnacionais/v/bfe9e37b>.
- Moreira Cunha, André, Daniela Magalhães Prates and Fernando Ferrari-Filho. 2011 "Brazil Responses to the International Financial Crisis: A Successful Example of Keynesian Policies?" *PANOECONOMICUS*: 5 pp. 693-714. <http://www.doiserbia.nb.rs/img/doi/1452-595X/2011/1452-595X1105693M.pdf>.
- Pesquisa Nacional por Amostra de Domicílios (PNAD). 2001-2009, 2011-2013. Instituto Brasileiro de Geografia e Estatística. Various Years. <http://www.ibge.gov.br/home/estatistica/populacao/trabalhoerendimento/pnad2013/default.shtm>.
- Rosnick, David and Mark Weisbrot. 2014. "Latin American Growth in the 21st Century: The 'Commodities Boom' That Wasn't." Washington, DC: Center for Economic and Policy Research. <http://www.cepr.net/index.php/publications/reports/latin-american-growth-in-the-21st-century>.
- Salas, Carlos. 2013. "Labour, Income and Social Programmes in Contemporary Mexico." Social Protection, Growth and Employment: Evidence from India, Kenya, Malawi, Mexico and Tajikistan. New York, NY: United Nations Development Programme, pp. 201-234.

- Secretaria do Tesouro Nacional (STN), Ministério da Fazenda. 2014. “Central Government Primary Balance.” <http://www.tesouro.fazenda.gov.br/en/central-government-primary-balance>.
- Sergio Lima, Mario and Rachel Gamarski. 2014. “Brazil Government Lowers 2014 Growth Forecast to 0.9% from 1.8%.” Bloomberg: September 22. <http://www.bloomberg.com/news/2014-09-22/brazil-government-lowers-2014-growth-forecast-to-0-9-from-1-8-.html>.
- Serrano, Franklin and Ricardo Summa. 2011. “Macroeconomic Policy, Growth and Income Distribution in the Brazilian Economy in the 2000s.” Washington, DC: Center for Economic and Policy Research, June. <http://www.cepr.net/documents/publications/brazil-2011-06.pdf>.
- Serrano, Franklin and Ricardo Summa. 2014. “Notas Sobre a Desaceleracao Rudimentar da Economic Brasileira.” Chapter 4 in “Como vai o Brasil?”, Fabio Sá Earp, Eduardo F. Bastian e André de Melo Modenesi (organizers). <http://comovaiobrasil.pressbooks.com/>.
- Silva Moreira, Tito Belchior and Fernando Antônio Ribeiro Soares. 2012. “Brazil: The International Financial Crisis and Counter-Cyclical Policies.” Santiago de Chile: La Comisión Económica para América Latina. April. <http://www.cepal.org/publicaciones/xml/3/47733/RVI106SilvaMoreira.pdf>.
- Summa, Ricardo. 2014. “Mercado de trabalho e a evolução dos salários no Brasil.” Instituto de Economia, Universidade Federal do Rio de Janeiro. <http://www.ie.ufrj.br/index.php/index-publicacoes/textos-para-discussao>.
- Veras Soares, Fábio. 2005. “The Impact of Trade Liberalisation on the Informal Sector in Brazil.” International Poverty Center. Brasília, DF: UNDP/IPEA.