

Quarterly Knowledge Report



INTERVIEW



10 BNDES's Fernando Puga, on Brazil's long term credit market.

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KEY DATES

- **Presidential and State Elections**—October 3
- **World Development Report Consultations**—Brasília, August 30-31
- **LAC Flagship global launch**—São Paulo, September 13
- **Brazil Knowledge Day**—Washington, December 2
- **Brazil Knowledge Day**—Brasília, December 14

SOCIAL ASSISTANCE AND SHOCKS:
THE FOOD CRISIS AND CCTs

By Anna Fruttero

For a long time, Brazil was been known as a country with persistent poverty and high inequality. In the last few decades, however, the country's substantial social investments have proven efficient, effective, and well targeted, and results are plain to see. The efforts to address the structural causes of poverty started in 1995, with municipal conditional cash transfer (CCT) programs, which led to the creation of several national CCT programs in the early 2000s.

In 2003, the Brazilian Government merged four existing federal CCT programs into *Bolsa Família*, and in January 2004 it created the Ministry of Social Development (MDS), to integrate non-contributive social protection policies for

the poor/vulnerable population.

Bolsa Família represented a new multidimensional strategy to reduce poverty and inequality. The program has achieved impressive results while using a very limited amount of resources, only 0.35 percent of GDP. This investment has contributed not only to

the strong performance in poverty reduction, but also as a useful instrument to mitigate the effects of some types of shocks.

This article highlights some results of an on-going research on the distributional effect of shocks and the mitigating role of social protection programs¹. Us-

(Continued on page 2)



A CRITICAL JUNCTURE

EDITORIAL BY MAKHTAR DIOP

Come October 3rd, Brazil will hold general elections. We hope that some of the Bank's studies could inform the debate. From social security to sustainable development, the Bank is producing a record number of analytical reports, all of which

focused on critical issues for Brazil's future. A few of these are summarized in this issue of the Quarterly Knowledge Report, and more will be featured in the coming editions.

Brazil's flagship *Bolsa Família* CCT program helped millions

out of poverty. The question Anna Fruttero raises in her thought-provoking piece is whether and to which extent the increase in *Bolsa Família*'s benefits in 2008 may have mitigated the losses due to food prices in-

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FOOD CRISIS AND CCTs...

(CONTINUED FROM PAGE 1)

“Our analysis suggests that these increases in food prices were markedly regressive, with the bottom income percentiles of the population experiencing a much higher reduction in welfare than the top percentiles”

ing monthly consumer prices for 16 different food items, collected in the main 11 metropolitan areas of Brazil, we estimated first-order welfare impacts of food price rises observed during 2008, on the basis of detailed pre-shock household consumption patterns (POF 2002/03), across the expenditure distribution. We then used the Brazil's 2006 National Household Sample Survey (PNAD) to estimate the effect of increases in the values of the benefits of the two main income transfer programs, *Bolsa Família* and *Benefício de Prestação Continuada* (BPC), which occurred during the first half of 2008.

Between 2005 and 2008, world prices of many staple food commodities rose substantially, driven by rapidly rising demand during the global economic

expansion. Dairy prices rose by 90 percent, maize by 80 percent, wheat by 70 percent, rice by 25 percent². Increases of this magnitude and over such a short period were unprecedented for basic foodstuffs, and led to widespread concern about their impacts on hunger and poverty. A number of governments resorted to export restrictions in order to guarantee domestic supply, while international organizations³ fretted about possible reversals and delays in meeting the Millennium Development Goals.

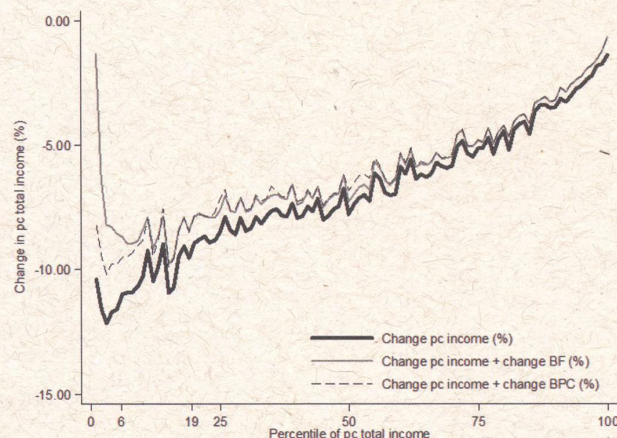
While maintaining relatively low levels, inflation in Brazil increased in early 2007, driven mainly by food prices, and reached a peak of about 7 percent in June 2008. However, there were marked differences across categories of

goods. Except for food, prices remained constant at around 5 percent or lower. Food prices, on the other hand, peaked in July 2008, expanding by about 20 percent (with prices for cereal hitting 80 percent and meat 40 percent).

Our analysis suggests that these increases in food prices were markedly regressive⁴, with the bottom income percentiles of the population experiencing a much higher reduction in welfare than the top percentiles. This average regressive incidence reflects substantial differences across food items, in terms of average price increase and of the relevance of each item in total consumption.

During the first half of 2008 the Government of Brazil increased the value of benefits for *Bolsa Família* and BPC, which is tied to the minimum wage⁵. In our analysis, we investigate the extent to which these measures might have mitigated the welfare losses due to the price increases. To gauge the differential effect of the price changes across the income distribution and the effect of the different policies, we define “price-increase incidence curves” that show how the change in consumption for a given percentile varies across percentiles ranked by income. In Figure 1, we can see the price-increase incidence curves for the changes in prices (black bold line), for the changes

Figure 1—Price-Increase Incidence Curves Under Different Scenarios





Ms. Juraci Santana de Brito, 48, shows her benefit card in Acauã, Piauí.
Photo by Benonias Cardoso

in prices and in the value of *Bolsa Família* benefits (grey thin line), and for change in prices and in the value of BPC benefits (broken line).

The analysis suggests that the benefit increases in *Bolsa Família* and BPC may have mitigated the welfare losses among the extremely poor, but did not have had much protective impact among the moderate poor, or elsewhere along the distribution, thus having no effect on aggregate measures of poverty and inequality. Moreover, it is evident that most of the effect is due to *Bolsa Família*. This can be explained by the different coverage of the two programs and the level of the benefits. While both programs are well targeted, *Bolsa Família* has almost 4 times as many beneficiary households as BPC (12.4 vs. 3.4 million in 2009) but a benefit level that is about one third of that of BPC, which is equivalent of one minimum wage⁶. Thus,

very few of the BPC beneficiaries remain in the lowest percentiles of the income distribution, while most of *Bolsa Família* beneficiaries are still poor. The limited overall impact can be explained by the limited size of the transfer relative to the welfare loss.

While *Bolsa Família* and BPC are programs designed to address structural poverty, they can be used by the Government in response to shocks. *Bolsa Família*, with its good targeting performance and high coverage level, can provide a relatively inexpensive way to transfer resources promptly to a large number of the neediest families. On the other hand, despite good targeting, a large share of BPC beneficiaries is not among the poorest because of the much higher level of the value of the transfer.

Some caveats are needed. Despite good targeting, many poor families are not *Bolsa Família* beneficiaries: about 45 percent of

the poorest 20 percent in 2006. Moreover, *Bolsa Família* is not a counter-cyclical instrument and its targeting mechanism is not necessarily appropriate to identify those hit by a shock, in particular the new poor. Another issue is that, when facing a transitory shock, the policy should be transitory as well. However, the political economy of increasing benefits temporarily is challenging **BET**

1. Ferreira, F.H.G., A. Fruttero, P. Leite, and L. Lucchetti (2010) "The welfare impact of the 2008 Food Price Shock in Brazil", work in progress, World Bank.

2. Ivanic, M. and W. Martin (2008), *Implications of Higher Global Food Prices for Poverty in Low-Income Countries*, World Bank Policy Research Working Paper 4594

3. FAO (<http://www.fao.org/newsroom/en/news/2008/1000923/>), MDG Report 2008

4. It does not account for income effects of price changes. We are currently working on estimating these effects.

5. The value of the basic benefit of *Bolsa Família* increased by 8 percent (R\$4), the value of the benefit per child by 13 percent (R\$2) while BPC benefits increased by almost 9.2 percent (R\$35). To cost of each of these two measures is very similar because of the much higher number of beneficiaries of *Bolsa Família* compared to BPC.

6. *Bolsa Família* benefits are directed families with young children and are meant to complement family income. BPC benefits on the other hand are directed to elderly or disabled and hence are meant to guarantee a minimum level of income to meet basic needs.

***"Benefit increases in
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BOLSA FAMÍLIA AND ENTREPRENEURSHIP

By Guilherme Lichand

Conditional cash-transfer programs (CCTs) have had a significant effect on poverty and inequality reduction in developing countries over the last decades. In particular, Brazil's CCT program *Bolsa Família*, along with other Governmental transfers, is credited for as much as 50 percent of the recent fall in inequality in Brazil (the Gini index decreased from 0.5957 in 2001 to 0.5431 in 2009, according to CPS/FGV). Government support of income-generating activities among poor individuals is seen as such an important policy area that IPEA researcher Ricardo Paes de Barros calls it the next generation of social protection policies in Brazil. However, potential effects of the program on entrepreneurship have not yet been assessed.

Whether the program incentivizes poor individuals to start their own businesses is particularly relevant in light of the claim – common to all CCTs – that *Bolsa Família* deals with short-term poverty

relief but does not provide the means for breaking away from poverty. These concerns would be reduced if the program has a positive effect on entrepreneurship.

Bolsa Família provides governmental transfers to households up to a certain income threshold and with children or pregnant women, as long as they meet some requirements related to investments in children's education and/or health. Created in 2003, the program is designed to reach the poorest families in the country, and has displayed targeting and coverage performance above any national program and in line with best international practices.

A large literature documents how CCTs affect individual decisions. *Bolsa Família* has been shown to improve school attendance and decrease child labor but to have no impact either on the parents' labor supply or on fertility decisions. On entrepreneurship, it has already been shown that Mexico's *Oportunidades* increases the income-generating potential of

poor families. Results from other programs, such as *Procampo*, also in Mexico, and a microfinance experiment in India, also point towards a positive effect of the transfers on potentially wealth-constrained families starting a business.

Along similar lines, we assess whether *Bolsa Família* increases the probability of starting a new venture in Brazil, decomposing its potential effects into three channels: (i) alleviation of wealth constraints, (ii) insurance against bad outcomes of risky activities, and (iii) reduction in child labor (through the effect of the conditionality).

If startup costs are substantial, and if poor individuals have limited access to credit, channel (i) is expected to increase entrepreneurship, since wealth-constrained individuals could use the cash transfer to start a new venture or to increase the scale of their pre-existing firm. Channel (ii) is also expected to increase entrepreneurship if household heads are risk-averse: since they

“Whether the program incentives the poor to start their own businesses is relevant in light of the claim that Bolsa Família does not provide the means for breaking away from poverty”

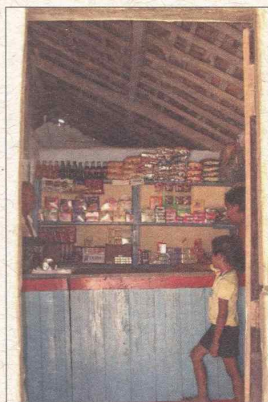


Photo by Luana Maia

Table 1—Main occupation (urban sub-sample)

	Wealth constraint alleviation (IV)			Insurance (OLS)		
	(1)	(2)	(3)	(1)	(2)	(3)
	Entrepreneur	Employer	Self-employed	Entrepreneur	Employer	Self-employed
Bolsa Família	0.00435 (0.0055)	-0.00532*** (0.0017)	0.00967* (0.0054)	0.00689 (0.0055)	-0.00517*** (0.0017)	0.0121** (0.0054)
Other Transfers	-0.00719 (0.0058)	-0.00433** (0.0018)	-0.00286 (0.0057)	-0.00526 (0.0058)	-0.00421** (0.0018)	-0.00105 (0.0057)
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes
UF fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	49,588	49,588	49,588	49,588	49,588	49,588
R-squared	0.06	0.024	0.056	0.06	0.024	0.057

Tables 1 & 2: standard errors in parentheses —*** p<0.01, ** p<0.05, * p<0.1

Table 2 — All sources of income (urban sub-sample)

	Wealth constraint alleviation (IV)			Insurance (OLS)		
	(1)	(2)	(3)	(1)	(2)	(3)
	Entrepreneur	Employer	Self-employed	Entrepreneur	Employer	Self-employed
Bolsa Família	0.00319** (0.0013)	-0.000158 (0.0003)	0.00334*** (0.0012)	0/00307** (0.0013)	-0.00017 (0.0003)	0.00324*** (0.0012)
Other Transfers	0.00400*** (0.0013)	-0.000098 (0.0003)	0.00410*** (0.0013)	0.00391*** (0.0013)	-0.000107 (0.0003)	0.00402*** (0.0013)
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes
UF fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	49,588	49,588	49,588	49,588	49,588	49,588
R-squared	0.006	0.004	0.005	0.006	0.004	0.005

are guaranteed to receive the transfer irrespective of what happens with their business¹ (from success to bankruptcy), individuals could be more willing to engage in risky activities. Assuming that children always work with their parents (in their parents' firm whenever they are business owners), channel (iii) could decrease entrepreneurship if the conditionality decreases children's labor supply and if children were more productive 'inside' the firm – by making entrepreneurship more attractive to household heads as opposed to supplying labor along with their children. It is important to note that this would not be a negative result, per se.

We draw upon Brazil's National Household Sample Surveys (PNADs) of 2004 and 2006, which are the only years for which transfer beneficiaries were identified. The empirical strategy used to separate the effects of interest is comparing individuals based upon their wealth *prior to the transfer* for the first channel; upon their wealth *after the transfer* for the second channel, and upon the gender of their chil-

dren for the third channel, since it has been documented that the conditionality is only binding for boys regarding labor supply^{2,3}. Therefore, if the effect of *Bolsa Família* on entrepreneurship is conditional on a child's gender, then the conditionality has a level effect.

Tables 1 and 2 present our main results. Entrepreneurship (defined as owning a business as an employer or self-employed) is indeed stimulated by the program, but only in urban areas, through the insurance and wealth constraint alleviation effects. However, new ventures are typically secondary sources of income. Conditionalities do not impact the level of entrepreneurship. When referenced by home ownership, the program is documented to have a smaller impact among those household heads who own their homes – reinforcing the interpretation of alleviation of wealth constraint –; however, this effect is not statistically significant, probably because the survey's question is not really about tenure.

Recipient household heads

use the cash transfer to diversify their income portfolio; this can also be regarded as positive effect of the program, potentially enhancing the ability of the poor to protect against adverse economic shocks. Also of interest is the fact that *Bolsa Família* is different from other transfers in terms of providing insurance, given that the cash transfer represents, in some cases, a large share of household income⁴.

Alternative explanations for these effects, such as the fact that enrolled individuals might also have higher social capital, or a higher unobserved propensity to entrepreneurship, seem to be dismissed by a composition effect: the increased propensity to start a venture comes entirely from self-employment, while there seems to be some transitioning from employers to self-employment. Whether this points to the effect of the binding conditionality – through parents relieving their children from working in the family firm in order to attend school –, or to misreporting of parents – afraid of losing benefits on account of

“Entrepreneurship is indeed stimulated by the program, but only in urban areas. Social conditionalities do not impact the level of entrepreneurship”

BOLSA FAMÍLIA AND ENTREPRENEURSHIP...

“Bolsa Família stimulates self-employment and might have positive long-term effects on growth in addition to short-term poverty relief and better protection against shocks”

keeping their children in the business – is not relevant for our analysis: what matters is that higher social capital or a higher unobserved propensity to start a venture cannot account for this effect.

The previous findings allow us to conclude that *Bolsa Família* stimulates self-employment. If this is regarded as a higher-productivity activity, then we could conclude that the program might have positive long-term effects on growth in addition to short-term poverty relief and better protection against shocks, on account of enhanced diversification of the household income portfolio. The program's effects on individual's occupational choices are concentrated in urban areas, precisely where *Bolsa Família* is assumed to have weaker potential to support individuals out of poverty through 'first-order' effects, that is, by allowing increased access to basic services and goods⁵. When we investigate the activity composition for self-employed individuals in sec-

ondary sources of income, we see that they are mainly involved in small scale commerce and service ventures, activities that are better suited to urban markets and, hence, might involve lower startup costs when compared to those in rural environments.

It is also worth remarking that, within the subset of enterprising parents analyzed, we do not find any negative effect of the program on entrepreneurship due to the conditionality (be it because children's productivity is not indeed higher 'inside' the firm or because children actually do not stop working in their parents' venture) –; had we found a negative effect, it might have had implications for CCT bundle's redesign if Government decided that this kind of occupational choice should be more strongly discouraged by the program. It turns out that this short-term vs. long-term productivity trade-off (since enrolled children are more likely to end as more educated grownups, hence with

a higher propensity towards entrepreneurial activities) does not exist in context of the program's conditionality **BET**

1. Unless firm's profits were so high as to eliminate household eligibility to the program, a situation that we rule out without great loss of generality.

2. Cardoso, Eliana and SOUZA, André P. (2004) “The impact of cash transfers on child labor and school attendance in Brazil” documents this effect for *Bolsa-Escola*.

3. Ex-post wealth differs from ex-ante wealth by revenues from interest, financial applications and other sources of income (this is the best PNAD allow us to do).

4. Calculations indicate that *Bolsa Família* represents about 10 percent of recipient's average household income, and up to 50 percent of the average income of lowest decile recipient households.

5. How to get children out of jobs and into school”, *The Economist*, July, 29th, 2010

SAVINGS, POVERTY AND LIFECYCLE IN BRAZIL

By Romero Rocha

The Brazilian Institute of Geography and Statistics (IBGE) released last June its household expenditure survey (POF) 2008, which shows how the Brazilian society evolved in the previous five years. While household expenditures on education fell from 4.1 percent in 2002 to 3.0 percent in 2008, health expenditures increased

from 6.5 percent to 7.2 percent in the same period. An interesting of the survey is that families are saving more (or dissaving less) in 2008 compared to 2002. In 2008, 41 percent of Brazilian households had negative savings, 8 percentage points above 2002. This article investigates what lies behind this change in Brazilian household saving patterns and analyzes

changes in consumption/saving life cycle.

Figure 1 (saving rates by income percentile for 2002 and 2008) shows that poor families have saved more in 2008 than in 2002. Moreover, while in 2002 positive household savings started at the 74th percentile, in 2008 it started at the 61th percentile.

To better understand the determinants of this change in saving patterns, we draw a similar graph, but using income in absolute terms to compare saving rates. Thus, in Figure 2 we plot the saving rate for every household with per capita income below USD 1,000.00, Purchasing Power Parity (PPP) – covering 80 percent of the population. The main insight from this figure is that a large part of the increase in savings for low percentile is the result of an increase in income of the poor. The main driver of the increase in household saving rates is the decrease in the inequality of Brazilian income distribution which occurred between 2002 and 2008. We also see an increase in savings for a given income per capita (the line for 2008 is still above the line for 2002 in Figure 2). While further research is necessary to explain this fact, one of the possible explanations is that the more stable economy may induce people to plan for

Figure 2—Savings by Income per Capita

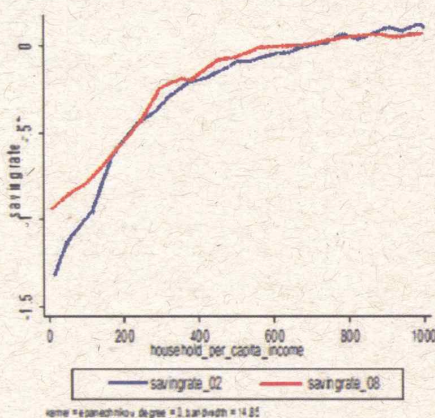
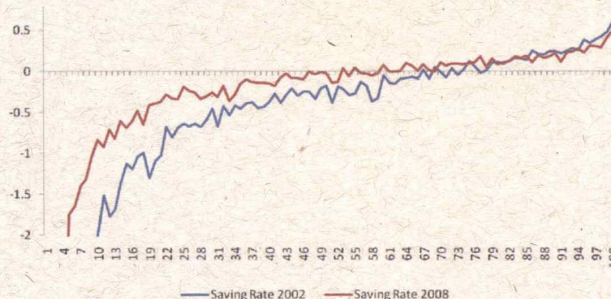


Figure 1—Saving Rates, by Income Percentile, 2002 and 2008



the future, and thus to save more.

Another interesting point that the survey allows us to analyze is whether labor income and cash transfers affect the saving rate in the same way. In order to shed some light on this important question we ran a regression of saving rates on labor income and income from transfers, using household expenditure surveys of 2002 and 2008. As presented on Table 1, our main result is that a labor income increase fosters a larger increase in household sav-

ing rates than an equal increase in cash transfer income. This is an interesting finding with potential policy implications. However, before jumping to conclusions, further research is war-

ranted. Indeed, it would be important to ascertain whether the differential effect of transfers and labor income on saving reflects behavioral differences or just the fact that cash transfer programs benefit the poorest, who have a smaller marginal propensity to save than those who are better off.

Table 1—Regression of Saving Rates on Labor Income and Transfers

Log labor income	0.272***
	(0.011)
Log transfers	0.198***
	(0.008)
Observations	33,393
R-squared	0.13

Robust standard errors in parenthesis.

* significant at 10 percent;

** significant at 5 percent;

*** significant at 1 percent

“The main driver of the increase in household saving rates is the decrease in the inequality of Brazilian income distribution which occurred between 2002 and 2008”