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Decomposing the Effects of CCTs on Entrepreneurship

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This note assesses whether Bolsa-Familia increases the probability of starting a venture in Brazil by decomposing its potential effects into three channels: wealth-constraint alleviation, insurance provision, and reduction of children's labor supply (through the effect of the conditionality). Results are that entrepreneurship is indeed stimulated by Bolsa-Familia in urban areas through the insurance and wealth-constraint alleviation effects, notwithstanding that new ventures are typically secondary sources of income. The conditionality seems not to impact the level of entrepreneurship. Hence, Bolsa-Familia might have a positive long-term effect as well, instead of just offering short-term poverty relief.

Over the last decade, conditional cash transfer (CCT) programs significantly reduced poverty and inequality in developing countries. In particular, Brazil's CCT program, Bolsa-Familia, along with other governmental transfers, has been credited for reducing inequality by as much as 50 percent (Barros 2007; Gini index decreased from 0.5957 in 2001 to 0.5431 in 2009, according to Getulio Vargas Foundation's Center for Social Policies (CPS/FGV). However, potential effects of the program on entrepreneurship have not yet been assessed.

Government support of income-generating activities among poor individuals is such an important policy area that Ricardo Paes de Barros, one of the top poverty economists in Brazil, calls it the next generation of social protection policies in the country, and the recently concluded presidential campaign introduced the idea of "expanding Bolsa-Familia to include money targeted to increasing household savings."¹

Whether the program enables poor individuals to start their own ventures is particularly relevant in light of the claim—common to all CCTs—that Bolsa-Familia provides short-term pov-

erty relief without helping the poor acquire the necessary tools for breaking away from poverty on their own. If the program is to have a positive effect on entrepreneurship, this concern should be addressed.

Through Bolsa-Familia, households up to a certain income threshold and with children or pregnant women receive governmental transfers as long as they meet some requirements related to investments in children's human capital. Created in 2003, the program is designed to target the poorest families in the country, has displayed targeting and coverage performance above any national program, and is in line with best international practices.

There is now a large literature that documents the mechanisms through which CCTs affect individual decisions. Bolsa-Familia is reported to affect school attendance and the labor supply of children (Cardoso and De Souza 2004, for Bolsa-Escola, which was later on merged with other—unconditional—cash transfers to originate Bolsa-Familia), but not to impact parents' labor supply (Medeiros, Britto, and Soares 2008) nor

induce strategic fertility decisions (Rocha and Soares 2010). As for the effects on entrepreneurship, it has already been shown that Mexico's *Oportunidades* increases the income-generating potential of poor families (Gertler, Martinez, and Rubio-Codina 2007), and the assessment of other programs such as *Procampo*, also in Mexico, and a microfinance experiment in India also point toward a positive effect of transfers on start-ups for potentially wealth-constrained families (Sadoulet, de Janvry, and Davis 2001; Ravallion and Chen 2005).

If start-up costs are substantial, and if poor individuals have limited access to credit, CCTs are expected to *increase* entrepreneurship through the wealth-constraint alleviation channel, because wealth-constrained individuals could use the cash transfer to start a new venture or to increase the scale of their pre-existing firm. Moreover, if household heads are risk averse, CCTs are also expected to *increase* entrepreneurship through the insurance provision channel: because they are guaranteed to receive the transfer irrespective of what happens with their business,² from success to bankruptcy, individuals could be more willing to engage in risky activities. Taking as given that children always work with their parents, CCTs should *decrease* entrepreneurship through a third channel: if the conditionality decreases children's labor supply and if children were more productive "inside" the firm, starting a venture becomes less attractive to parents, since they cannot rely on their children's support to the same extent as before.

This assessment draws upon National Household Surveys (Pesquisas Nacionais de Amostras de Domicílios, PNADs) for 2004 and 2006, the only years that identify transfer beneficiary households. The empirical strategy to separate the effects of interest is to compare individuals based on their wealth *prior to the transfer* for the first channel; on their wealth *after the transfer* for the second channel; and on their children's gender for the third channel, since it has been documented that the conditionality is only binding for boys in what comes to reducing children's labor supply (Cardoso and De Souza 2004).³ There-

fore, if the effect of Bolsa-Familia on entrepreneurship is conditional on children's gender, then the conditionality has a level effect.

Because wealth is not perfectly observed on PNADs, it is proxied through asset ownership and current income. While income coming from the transfer is the fundamental variable for the definition of ex ante and ex post wealth, it can only be used as a control on the occupational choice equation since the program is documented not to affect parent's extensive or intensive margin labor decisions (Medeiros, Britto, and Soares 2008).⁴

Tables 1 and 2 present the 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, and accounting for the fact that new ventures are typically secondary sources of income. The conditionality does not impact the level of entrepreneurship. When interacted with house ownership, the program is documented to have a smaller impact among those household heads who own their houses—reinforcing the interpretation of wealth-constraint alleviation; however, this effect is not statistically significant, probably because the survey's question is not really about legal tenure.

Recipient household heads use the cash transfers to diversify their income portfolio; this can also be regarded as a positive effect of the program, because it can enhance the ability of the poor to protect themselves against economic shocks. Also of note is the fact that Bolsa-Familia is different from other transfers in what comes to providing insurance, what is reasonable given that program's cash transfer stands, in many cases, for a large share of poor households' income.⁵

Alternative explanations for these effects, such as the fact that that enrolled individuals might also have higher social capital or a higher unobserved tendency for entrepreneurship, seem to be dismissed by a composition effect: the increased propensity to start a venture comes entirely from self-employment,

Table 1. Main Occupation, Urban Subsample

	Wealth-constraint alleviation (IV)			Insurance (OLS)		
	(1) entrepreneur	(2) employer	(3) self-employed	(1) entrepreneur	(2) employer	(3) self-employed
Bolsa-Familia	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
State 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

Source: Compiled by author.

Notes: OLS = ordinary least squares. Standard errors in parentheses. *** p<0.01, ** p<0.05, and * p<0.1. (IV) uses ex ante income as an instrumental variable for ex post income; (OLS) regresses individual's occupational choice on ex post income using OLS.

Table 2. All Sources of Income, Urban Subsample

	Wealth-constraint alleviation (IV)			Insurance (OLS)		
	(1) entrepreneur	(2) employer	(3) self-employed	(1) entrepreneur	(2) employer	(3) self-employed
Bolsa-Familia	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
State 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

Source: Compiled by author.

Notes: OLS = ordinary least squares. Standard errors in parentheses. *** p<0.01, ** p<0.05, and * p<0.1. (IV) uses ex ante income as an instrumental variable for ex post income; (OLS) regresses individual's occupational choice on ex post income using OLS.

while there seems to be some transitioning from employers to self-employment. Whether this points to the effect of the binding conditionality—through parents sending their children to school instead of working in their business—or to the misreporting of parents—afraid of losing benefits because they kept their children working in the business—is not relevant for this analysis: what matters is that higher social capital or a higher unobserved predisposition to start a venture cannot account for this effect.

The previous findings lead to the conclusion that Bolsa-Familia stimulates self-employment; if this is regarded as a higher-productivity activity, then it would be tempting to conclude that the program might have positive long-term effects on growth, in addition to short-term poverty relief, and better protection against shocks as a result of enhanced diversification of the household income portfolio. The program's effects on individual's occupational choices are concentrated in urban areas, precisely where the Bolsa-Familia has been identified as having weaker potential to support individuals out of poverty through "first-order" effects, that is, by allowing increased access to basic services and goods.⁶

When the activity composition for those individuals allocated to self-employment in secondary sources of income is investigated, it shows 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 start-up costs when compared to those in rural environments. In fact, the wealth-constraint alleviation effect is stronger for activities with higher start-up costs, which confirms the interpretation that it is the program that increases the likelihood of engaging in a start-up, and not the opposite. Breaking up activities by commerce and services, it turns out that the positive effect on entrepreneurship comes entirely from services, what can be reconciled with the higher start-up costs for services, since small-scale commerce is often carried out through consignment—meaning that unsold goods can be returned to the supplier at no charge to

the seller—while service provision typically involves acquiring tools or inputs that require upfront payments.

It is also worth remarking that negative effects of the program on entrepreneurship due to the conditionality were not found, either because children's productivity is not higher inside parents' firm or because children actually do not stop working in parents' ventures. Had negative effects been found, that could bear implications for CCT bundle's redesign if government considers reformulating the program to further stimulate entrepreneurship. It turns out that this short-versus long-term productivity trade-off (because enrolled children are more likely to end up as better educated adults, with a higher tendency toward entrepreneurial activities) does not exist when it comes to the program's conditionality.

Taking stock, entrepreneurship is indeed stimulated by Bolsa-Familia through the insurance and wealth-constraint alleviation effects, recalling that new ventures are typically secondary sources of income. Conditionality does not impact the level of entrepreneurship. Recipient household heads use the cash transfer to diversify their income portfolio; this can also be regarded as positive effect of the program because it can enhance the ability of the poor to protect themselves against economic shocks. Moreover, it is relevant that this effect is concentrated in urban areas, where Bolsa-Familia's first-order effect, that of reducing current poverty, has been shown to be less successful than in rural areas.

Hence, Bolsa-Familia might have a positive long-term effect, instead of just offering short-term poverty relief. Also of interest is the fact that individuals regard Bolsa-Familia as different from other transfers in what comes to insurance provision, at least to the extent they take them into account in their occupational choice. Finally, the fact that no negative effects of the program on entrepreneurship as a result of the conditionality were found supports the claim that there is no short- versus long-term productivity trade-off linked to program's requirements of investment in children's human capital.

About the Author

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Notes

1. Michel Temer, Brazil's next vice-president, in an interview with *Valor Econômico* July, 21, 2010.
2. Unless a firm's profits were so high as to eliminate household eligibility to the program, a situation ruled out for this assessment without great loss of generality.
3. Ex post wealth differs from ex ante wealth by revenues from interest, financial applications, and other sources of income (this is the best allowed by PNAD). It is assumed that poor individuals do not have financial applications or control for recipient status of other government transfers.
4. Results for the effects of the program without including income on the right hand side of the equation (and thus, without decomposing its effect on entrepreneurship) are still very positive and significant.
5. Calculations indicate that Bolsa-Família represents about 10 percent of a recipient's average household income, and up to 50

percent of the average income of those households in the lowest income decile among recipients.

6. "How to get children out of jobs and into school," *The Economist*, July 29, 2010.

References

- Barros, R., M. Carvalho, S. Franco, and R. Mendonça. 2007. "Determinantes imediatos da queda da desigualdade de renda brasileira." IPEA Discussion paper No. 1253.
- Cardoso, E., and A. De Souza. 2004. "The Impact of Conditional Cash Transfers on Child Labor and School Attendance in Brazil." Vanderbilt University Working Paper No. 04-W07, April.
- Gertler, P., S. Martinez, and M. Rubio-Codina. 2007. "Investing Cash Transfers to Raise Long-Term Living Standards." Institute for Fiscal Studies Working Paper.
- Medeiros, M., T. Britto, and F. Soares. 2008. "Targeted Cash Transfer Programmes in Brazil: BPC and the Bolsa Família." International Poverty Centre Working Paper No. 46, June.
- Ravallion, M., and S. Chen. 2005. "Hidden Impact? Household Savings in Response to a Poor Area Development Project." *Journal of Public Economics* 89 (11–12): 2183–2204.
- Rocha, R., and R. Soares. 2010. "Programas condicionais de transferência de renda e fecundidade: evidências do Bolsa Família." Mimeo.
- Sadoulet, E., A. de Janvry, and B. Davis. 2001. "Cash Transfer Programs with Income Multipliers: PROCAMPO in Mexico." *World Development* 29 (6): 1043–56.
- Soares, S., R. Ribas, and F. Soares. 2009. "Focalização e cobertura do Programa Bolsa-Família: qual o significado dos 11 milhões de famílias?" IPEA Discussion Paper No. 1396.

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