A Dark Side of Financial Integration: The Global Crisis Transmission to Brazil

By Tatiana Didier*

The 2007-2009 crisis showed that in a financial integrated world, shocks transmit rapidly from one country to another. What are the main transmission channels? Are they country specific? To answer these important questions, in this article we compare the experience of Brazil with that of other emerging market economies during the recent global financial crisis. Our main finding is Brazil's was hit by the global crisis mainly through the financial channel. This does not mean that financial autarky is the solution but that financial exposures should be carefully managed to avoid that increased financial integration could re-create those systemic vulnerabilities that characterized Brazil's past history.

We have observed a highly synchronized nose-dive in financial markets across the globe, especially since September 2008 (see Figure 1, page 2). However, aggregate stock market returns hide significantly more complex mechanisms in the transmission of the US crisis. For instance, the Brazilian stock market was not immune to the sizeable external shock, although it seemed somewhat resilient in comparison to other countries if one looks at aggregate stock market returns over the crisis period. Between July 2007 and April 2009, the Bovespa index fell by 12.7%, whereas stock markets in other BRIC countries fell between 26.7%, in India, and 47%, in Russia, and even larger downturns were observed in OECD countries (decline of 47.6% on average) and Eastern Europe and Central Asian (ECA) countries (65% declines in stock market indices on average) over the same period (Figure 1).

However, despite having one of the lowest accumulated losses over this period of turmoil, the Brazilian stock market has been highly volatile, losing at some point almost 50% of its value. From this perspective, Brazil does not seem as shielded from the massive external shock as the aggregate data suggested (see Figure 2, page 2). Moreover, the Bovespa displayed a very high degree of co-movement with US markets, reacting significantly more than markets in China or even in Iceland, although markets in India and Greece faced even higher losses.

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As Diverse as Brazil

Editorial by Makhtar Diop

From Brazil's role in pioneering a key financial instrument in the reconstruction of Haiti, to insights on why Brazil's equity market suffered deeply in the crisis while the real economy was barely affected, this third edition of the Brazil Quarterly Knowledge Report mirrors the diversity of issues and themes in Latin America's biggest economy.

In recent years, Brazil has achieved remarkable advances in reducing poverty and inequality. However, as one of the most renowned social researchers in Brazil, Ricardo Paes de Barros, surprisingly points out, these achievements are not yet fully understood. In an exclusive interview with Mauro Azeredo, Paes de Barros explains the...
stronger co-movements (see Figure 3, page 10).2

To understand this heterogeneity in markets’ reactions to the 2007-2009 crisis, we focus on country-level characteristics representing the different transmission channels.3

First, let’s analyze on financial linkages across markets. These linkages work mostly through the financial account (or capital flows) among countries connected to the international financial system. Such linkages capture not only direct connections to the crisis-hit country through investors’ direct exposures but also indirect ones through the actions of common creditors. For example, foreign investors own assets in the crisis country (or vice-versa) and in response to shocks affecting the liquidity and/or asset quality of their portfolios, they might need to raise cash by selling their stock holdings in other countries. These market linkages can be driven not only by margin calls or internal provisioning practices, but also by changes in risk aversion or by herding behavior.

The data suggests that these financial linkages (both direct and indirect) were indeed important in transmitting the crisis to Brazil and can explain its considerable stock market reaction to the external shock. On average, countries receiving a large share of investments in equity markets from US investors have experienced a more pronounced reaction to the US crisis, reflecting a “margin call” story where US investors facing large losses at home withdraw money from their foreign investments. This seems to apply to Brazil: US holdings of equities in Brazil were around 24% of total market capitalization. Other BRICs and ECA countries, on the other hand have received significantly less flows and hence had US equity holdings of only 7% and 4% of their market capitalization on average, respectively (See Figure 4, page 15).

Furthermore, a large co-movement with US markets during the turbulent period of 2007-2009 could have also been observed even if local investors were not directly exposed to the US stock market. A significant impact could still have been felt in local markets if their country were very open to financial flows and its stock market were very liquid as foreign investors, who were exposed to the US and had to redeem other investments to make up for their US losses, seemed to have exited open and liquid markets first. This channel also seems to have been central for Brazilian stock markets. The Bovespa is the most liquid market and the greater recipient of capital inflows in Latin America. Nevertheless, other BRICs also seemed to have been largely affected by this channel as they have received greater inflows and have had more liquid markets than Brazil (See Figure 5, page 15).

If the exposure of local markets to US investors (and the financial channel more broadly) seems to have been so important in the transmis-
What is Behind Brazil’s Poverty and Inequality Achievements?

By Mauro Azeredo

Ricardo Paes de Barros is one of the foremost and most influential social researchers in Brazil. He has been affiliated with the Instituto de Pesquisa Econômica Aplicada (IPEA) for many years, including serving as its Director of Social Studies.

In this exclusive interview to BET’s Mauro Azeredo, he says that the major advances in poverty and inequality reductions in Brazil are not yet completely understood in the long run, but there have been important advances comprehending mechanisms at work in the shorter term. PB, as he is known, has a PhD in Economics from the University of Chicago. Following are the highlights of the interview:

BET: What are the factors behind the large reductions in poverty and inequality in Brazil in recent years?

Ricardo Paes de Barros: It is very difficult to determine what are the ultimate causes for the reduction of poverty and inequality in Brazil. Thus, my work seeks to find out the immediate determinants. The first thing we see when we look at poverty is that part of its reduction comes from economic growth, and part from the decline in inequality. This decrease in inequality responds for approximately half of the country’s reduction in poverty. But what explains the fall in inequality?

It is possible to say that the fall in inequality did not result from demographic factors or greater access of the poor to the labor market. Instead it results either from non-labor income, such as Bolsa Familia, or from an improvement in labor income. In other words, workers have a better salary.

In the case of the non-labor income, a very important factor in reducing extreme poverty is the Bolsa Familia program, which is very well focused, reaching the poorest families. It has huge impact on extreme poverty, particularly when it is measured with a low base line and using the gap to the poverty line. The contribution of Bolsa Familia to the fall in poverty using the squared gap to the poverty line is even greater.

In the labor market, although part of the reductions in inequality are a result of market imperfections, such as discrimination or segmentation, the principal factor for the reduction was the narrowing of the premium on qualification. That is, the difference in income between skilled and unskilled workers fell in Brazil. This is the major factor behind the fall in wage inequality.

What we do not know yet is how much of this fall in the difference between skilled and unskilled workers occurred due to market factors - since there are more skilled workers in the market now - or, on the other hand, if it results from increases in the minimum wage, which also can increase returns for low-skill workers.

BET: Income transfers are essential to maintain these achievements? Brazil already knows how to distribute income other than by helicopter (as you said many years ago)?

PB: There is no doubt that Brazilian social policy proved remarkably effective to reduce poverty and inequality. We are reducing poverty and inequality at an astonishing pace. The income of the poor is growing five times faster than that of the rich.

Currently, Brazil is able to make its social policies reach the poor much more than before. Ten years ago, social inequality in Brazil was stationary and each researcher had ten hunches on how to make inequality fall. Today, inequality is falling at such a speed that social scientists are unable to explain just why this is happening.

BET: These mechanisms were applied in a context of high poverty and inequality, and despite advances Brazil is still relatively poor and unjust. What social instruments would be needed to take Brazil to a more appropriate poverty level?

PB: The fact that these policies have been very effective in Brazil in the past does not mean that they will remain effective in the future. The nature of poverty has changed; it is smaller and more concentrated in some groups. The problem of hunger is a typical case. Currently, malnutrition indicators are growing five times faster due to labor or non-labor income”

“The fall in inequality did not result from demographic factors or greater access of the poor to the labor market. It is either due to labor or non-labor income”

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in the Northeast are very similar to those of the Southern region of Brazil, something that would be unimaginable 10 or 20 years ago.

But, on the other hand, hunger indicators in rural areas of northern Brazil remains very high. I would never expect this development. It has always been assumed that hunger could not exist in the rural areas of the North, where the population is in close contact with nature.

This may mean that the same policy that worked for the Northeast, practically ending hunger, may not be the one that will eradicate hunger in rural areas of the North.

This example shows that we have to understand that success in the past does not guarantee future success. Policies are like technologies, they become obsolete too. So it is necessary to keep updating them, innovating and creating new policies.

BET: Were the institutional and structural factors behind inequality generation dismantled? As the social programs a mere palliative?

PB: Brazil has always been one of the most unequal countries in the world. It was not the poorest country, since it is a medium income country. But poverty in Brazil is high compared to its income. We have always had the biggest income inequality in the planet, but poverty-wise we were better off than sub-Saharan Africa and South Asia, for instance.

For a long time it was believed that inequality in Brazil was high because of structural factors. But I think that the decrease in inequality over the last 10 year is not merely a disguise or a compensation process.

I think the country actually reduced inequality. But there were no structural changes. This means that the old story about inequality being a result of the lack of major structural changes might actually have been just an excuse from those who wanted to say that reducing inequality required enormous efforts or a miracle.

What the policy of the past 10 years has shown is that if you do a few simple and easy things, the country’s inequality can fall and reach levels that are similar to the rest of the world. That is, the last 10 years have shown that inequality in Brazil has always been very similar to inequality in other countries.

All that was needed was to provide basic services such as education and creating a basic social protection network. Inequality then fell here as it fell in other parts of the world. So, the great structural reforms were not required, because in fact they were not preventing the reduction of inequality. Inequality was generated again and again in Brazil, and had nothing to do with these structural changes.

BET: Brazil will have general elections this year. What would you recommend to a government that wishes to step up poverty and inequality reductions?

PB: I think the greatest risk, since Brazil has had such a great success, is to crystallize this success and try to replicate it continuously. Saying something like: “We now have the recipe for the cake, let’s do it again.” I think this will not work.

The challenge is to realize that we must continue to innovate in social policy at all times. Another risk for the next government, stemming from the pre-salt oil reserves, etc., is losing the incentive to continue to pursue more efficient policies due to the abundance of money. This inefficiency will take its toll eventually.

Brazil’s problem is that the country has been through a period of great success and now has lots of money. Society could reach the following conclusion: “If we have a lot of money, there is no need to assess what was done. We’ll just repeat it again.” This can go wrong.

Brazil has to take advantage of the affluence and of the good social policies, but also assess all the policies in place, find out what was most effective, deploy it and replace what was inefficient.

Along these lines, Brazil needs to work on integrating policies. Bolsa Família created a connection to the poorest families, we now know who they are, and have their names and addresses.

Today we give these people a transfer of 20, 50, 60 reals. We need to be able to transfer a basket of opportunities

“We need to be able to transfer a basket of opportunities to the poor. And this basket cannot be rigid, it has to be created from their needs”
Procurement Rules: Do They Matter, and How Much?

By Luis Blancas
Alexandre Borges
Laura Chioda and
Tito Cordella

Investment in infrastructure is key for Brazil’s economic growth, but public works take too long to be realized. How responsible are procurement rules for such delays? Is it possible to improve the timeliness of Brazil’s public investments by changing procurement rules?

With these questions in mind, we looked at the recent experience of the state of São Paulo which, by changing procurement rules and adopting the so-called inversão das fases mechanism, has been able to reduce delays in public procurement by almost 40 days. On the basis of this experience one may wonder whether such a system could be adopted at the federal level to help speed general program implementation, including of the flagship growth and acceleration program (PAC).

The Brazilian government’s procurement system for large infrastructure works is a two-envelope open competitive bidding system called concorrência. More precisely, bids are presented in two separate envelopes: the first contains the technical proposal along with qualification documents; the second the price proposal. In the first stage, bids that do not meet the qualifications and technical requirements are disqualified and their price proposals are returned unopened. In the second stage, the price envelopes of qualified bidders are opened, and the contract is awarded to the qualified bidder with the lowest price.

According to Brazilian procurement law, all bidders—in fact, all citizens—are allowed to inspect all bids before the second envelope is opened, and may file a complaint to have their bids reinstated or to request rejection of someone else’s bid. Bidders who disagree with the evaluation process have three channels to voice complaints: (i) an administrative channel; (ii) the Supreme Auditor, which reports to the legislative branch; and (iii) the country’s courts of law.

Even though a clear administrative complaint resolution process is set out in the procurement law, it is rather ineffective in settling complaints as it is carried out by the very agency whose decision gave place to the complaint in the first place. As a result, unsatisfied bidders tend to either go straight to the courts to settle complaints, or do so after utilizing the administrative complaint resolution process as a matter of course.

In recent years, the country’s Supreme Auditor—the Tribunal de Contas da União (TCU)—has been flooded with complaints about government procurement processes. A key reason is that bidders quickly understood that any citizen can refer a case to TCU to be reviewed free of charge, whereas regular lawsuits involve costly legal fees. Moreover, even after an unfavorable decision by the TCU, bidders can still file a lawsuit at regular courts if they remain unsatisfied.

Since neither the TCU nor courts of law have to answer in a pre-determined timeframe, the large number of lawsuits leads to long delays.

It is clear that the two-envelope system as currently implemented is not time-efficient. A simple way to improve on it could be to look at prices first and then post qualify only the most competitive bids (usually the three lowest bidders). By doing so, relatively high bids—which would have virtually no chance of winning the contract—would be safely ignored. In addition, the number of lawsuits will also be limited, as only the winning bid would eventually be challenged and, presumably, only by those bidders who consider themselves sufficiently “competitive” on price.

Following such a simple logic, several states have in fact modified their procurement laws to allow for inverting the bid evaluation phases in a procedure known as inversão das fases. Besides São Paulo state (2008), Bahia (2005), Paraná (2007), and Sergipe (2006) have all enacted subnational laws allowing phase inversion for concorrências in the context of public works procurement.

The use of inversão das fases has been a highly controversial issue between government officials on one side—arguing for faster procurement of works—and construction companies (and their lawyers) on the other—claiming that phase inversion may result in awarding contracts to unqualified contractors or perhaps worried about more competitive auctions.

In order to shed some light on the true impact of inversão das fases on process delays and final prices, we studied how the regime change affected the outcome of works procurement in São Paulo when compared to Minas Gerais, which has kept the original two-envelope system. We utilized procurement data from major state-owned water utilities in each state. Specifically, we follow a differ-

“The use of phase inversion has been a highly controversial issue between government and the construction companies”
Procurement...
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ence-in-difference strategy whereby projects from São Paulo are considered in the treatment group, while Minas Gerais projects act as the control group. Our data cover the universe of projects awarded in 2007 (the period preceding the regime change), and those awarded in 2009 (post-regime change), representing a total of 799 projects. The implicit (and critical) identifying assumptions are that, with the exception of the São Paulo procurement process, no other major change across the two states occurred and macro level shocks affect both states in the same manner (common trend assumptions).

Our main result is that the new procurement mechanism appears to have significantly increased the speed of the procurement process for works. Before inversão das fases, São Paulo projects took roughly 55 days longer than those in Minas Gerais. The new procurement process closed more than half of that gap, speeding up the awarding cycle by about 38 days. It is plausible that project size is related to the duration of the procurement cycle, perhaps via the likelihood of litigation or other characteristics of the procurement process (e.g., project complexity). When we control for project estimated cost (which is provided to bidders by the implementing agencies prior to bid submissions), we observe that an additional million reals in estimated cost is associated with one additional day's delay until project award.

The results on prices are less conclusive. Focusing first on award amounts (in constant reals), contracts in São Paulo were on average R$7 million more expensive than in Minas Gerais in 2007, but that 90% of this gap was eliminated by the new procurement method. However, such a finding does not appear once we control for each project’s estimated cost. This suggests that the budgeting process may also have changed in response to the new procurement regime in São Paulo. This suspicion is confirmed by a model in which the outcome is instead the estimated cost set forth by public authorities: by this measure, São Paulo’s projects were on average R$8.5 million more expensive than in Minas Gerais at baseline, but this excess is entirely eliminated in the new regime, perhaps in expectation that the new auctioning mechanism would yield cheaper contracts.

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“Brazil needs to count on a knowledge base that provides the technical assistance necessary to support social improvements”

Now, if Brazil is to take advantage of this knowledge bank, the country must also be open to rethink its policies. The country should not take success for granted; assume that its policies are perfect, and that the Bank is wrong if it says otherwise. If it does this it will miss out on much knowledge.

Brazil’s problem is that, having experienced the success and being relatively rich, the country should still have the discipline to evaluate itself, find out what worked, what has to be improved, and do so. I think that if Brazil wants to improve its social policies, the Bank will be a terrific partner in terms of providing knowledge.

“Brazil needs to count on a knowledge base that provides the technical assistance necessary to support social improvements”

PB: I think that Brazil needs the World Bank as never before, but less as a financial bank and more as a knowledge bank.

Brazil has always been and remains an isolated country, with an inward gaze and little information on policies and practices from other parts of the world. The design, redesign, evaluation and continuous improvement of social policies in Brazil need to count on a knowledge base that provides the technical assistance necessary to make these improvements.
DECREASING FREIGHT LOGISTICS COSTS IN BRAZIL

By Jorge Rebelo and Sivan Tamir

What can a country such as Brazil do to lower one of the larger expenses in its GDP? According to a recently completed World Bank study, lower logistics costs can be achieved by improving transport intermodality and encouraging non-road transport through appropriate infrastructure investments and policy changes.

Comprising between 15-18% of Brazil’s GDP (Bank estimates), logistics costs are an important yet difficult component to reduce, but the impact of such actions translate into significant cost savings for virtually every part of society. For Brazil, lowering logistics costs is extremely relevant to continued economic growth, which evidently relies heavily on international trade as exports and imports account for 15% and 12% respectively of GDP.

As other indicators have highlighted, Brazil has been able to successfully reduce significant impediments to the logistics systems. The World Bank’s Logistics Performance Index 2010 has ranked Brazil 41st out of 155 countries and has noted that Brazil has performed well in terms of efficiencies in processing exports/imports and evident improvements in reduced levels of corruption, IT infrastructure and private logistics services, but has room for improvements in customs performance, levels of fees, and quality of infrastructure. The World Bank’s Cost of Doing Business 2009 ranked Brazil 125th out of 181 economies, noting that it takes more than twice as long for Brazil to export as it does the United States. Conversely, when compared with China, efficiency in Brazil is high yet the cost structure is poor on a global level (cost to export a container is US$1240 for Brazil compared with US$460 for China and US$990 for the USA). The World Economic Forum’s Enabling Trade Index ranked Brazil 87th among 121 countries, noting that its performance is average or better in availability and quality of transport services, availability and use of technology, and efficiency and transparency in border administration. However, there are impediments and room for improvement in addressing the level of protectionism, quality and availability of transport infrastructure, and efficiency of customs procedures.

Empirical evidence supports these observations. The Port of Santos was selected as a case study to compute the Total Logistics Cost (TLC) (including transport, inventory, warehousing, etc.) for a series of export products passing through the port. The results are interesting: foodstuffs and grains are bulky, and hence account for a large share of the TLC. Likewise, equipment and machinery and automotives have a high TLC because of their high value. Finally, fuels have a low TLC, which reflects their relative proximity to the Port of Santos.

In uncovering the bottlenecks impeding products moving through the Port of Santos, transport, inventory, warehousing, port costs, administrative costs and external factors such as interest and exchange rates, were analyzed. Generally, transport and port-related costs were important bottlenecks. Yet, as many export products are manufactured a short distance from the Port of Santos (average 83km), the entire logistics chain becomes the bottleneck. Consequently, inland transport infrastructure such as railroads, roads, and waterways as well as the Port of Santos, emerge as clear areas for policy intervention for logistics chain improvements.

With a total cost of R$11 billion (over US$6.5 billion), the Federal and State governments have planned port related transport projects for which they will contribute close to 50% of the total investment, relying on the private sector to finance the remainder directly or through concessions. The impact results of such projects are impressive: Small reductions in railroad costs as a result of creating an “express service” freight rail running on higher speeds will lead to a 4% drop in the TLC which can result in

“Lower logistics costs in Brazil could be achieved by improving transport intermodality and encouraging non-road transport”

Figure 1: Logistics Performance Index 2010

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<th>Country</th>
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World Bank 2010

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a 45% increase in rail demand. Projects that can reduce customs processing time by 4 days would reduce by 16% the TLC. The proposed improvements to the transport infrastructure would reduce the TLC, improve the reliability of the logistic chain, enhance the competitiveness of São Paulo and Brazil, and fundamentally change the logistics system to be more reliant on railroads and less on trucks.

The study also presents a sketch planning exercise with a set of solutions proposed by logistics system users as measures to lower logistics costs in Brazil. Each scenario consists of different logistical development packages ranging from policy changes to infrastructure projects. By estimating the cost and benefit of each package, one can evaluate how logistics costs alter as a percentage of GDP given a particular investment. The results prove interesting: the scenario which most closely matches the Government’s current Growth Acceleration Program (PAC - a federal government initiative for 2007-2010 to stimulate the productive sector and thereby increase social benefits through government investments in infrastructure) results in some gains to the logistics costs attributed mainly to the continued focus on roads but would not significantly reduce logistics costs from their current position at approximately 15% of GDP. However, building upon the projects in the PAC by further improving customs, adding port terminals, intermodal transfer terminals, and warehousing, logistics costs may be reduced to 12% of GDP (which translate to approximately US$4 billion savings annually) which should be the minimum target to be achieved within ten years. On the other hand, the ideal scenario, one which relies heavily on additional investments in railway lines, new rolling stock, and additional ethanol pipelines, result in a logistics costs of 9.4% of GDP (approximately US$9 billion savings annually).

Analyses show that major economies spend 5% to 7% of their GDP each year on infrastructure, while according to the World Bank, investments in infrastructure in Latin America need to reach 4%-6% in order to compete effectively with Asian countries such as Korea and China. Brazil, on the other hand, has spent in the range of 0.6% to 2.1% in the last few years. To reach those higher spending levels, it is estimated that Brazil should continue, at a minimum, the effort started with PAC by investing in infrastructure on a continuous basis over the next 10-20 years, taking into account the priorities established in the National Plan for Transport Logistics.

To enhance its competitiveness in the global marketplace, Brazil needs to set in motion a series of institutional and policy development actions, as well as major infrastructure investments, according to the study’s recommendations. Short term actions to improve competitiveness include strengthening the national logistics council with more private sector involvement, continuously updating the national logistics strategy (PNLT) to respond to emerging demands, strengthening the logistics planning unit of the Ministry of Transport, establishing various data collection systems, and implementing specific infrastructure and supply chain investments. Medium and long term actions should be aimed at fostering intermodality and enabling cost reductions in the logistics system, including large infrastructure investments, coupled with new streamlined customs and phyto-sanitary procedures, such as outlined in the sketch planning exercise and the PNLT. Such actions will enable Brazil to gradually shift the modal share in favor of waterways, rail and pipeline transport resulting in an enhanced total logistics framework, promoting improved performance and reduced costs in a more environmentally-friendly way. Brazil’s freight logistic system is improving fast as shown by the LPI, which jumped from 61st in 2007 to 41st in 2010, but a more intensive and concerted effort between national and state governments and the private sector is needed to meet the ever growing demand challenges the country faces in the 21st century.

"Building greater logistics efficiency in the PAC may reduce logistics costs by 12% of GDP"
By Romero Rocha

The Brazilian Institute of Geography and Statistics (IBGE) is responsible for the broadest household surveys in Brazil. The quality of information provided by exercises is recognized by most international researchers. There are three large household surveys in Brazil. The first one, the National Household Survey (PNAD), concentrates on information about income and labor, but also brings information about migration, education, fertility and wealth of the household. The second, the Family Budget Survey (POF), concentrates on information about consumption of households. And the last one, the Employment Monthly Survey (PME), concentrates on information about employment and labor income.

IBGE, with support from the World Bank, is now preparing big changes in these surveys. PNAD and PME will be merged into a single quarterly survey, as the current PNAD. However, it will follow households for five quarters, then leave them out of the sample for three quarters and then reinstate them for more for quarters, after which the households will leave the sample definitively. This will help produce some valuable panel data to analyze the households. The survey reform will also transform the POF into an annual survey. There will be a five-year POF using the complete questionnaire and four continuous POFs between them, with a smaller questionnaire. Keeping its non-longitudinal nature.

The PNAD is the biggest household survey in Brazil. It is an annual survey (September to August), and it is divided in two datasets, one with personal characteristics and another with household characteristics. It is representative for Brazil and its states (there is no information about municipalities). The households are randomly selected every year, but they are not followed in the subsequent years (there is no panel data).

The main characteristic of PNAD is that the survey brings detailed personal information, such as age, gender, race, household condition (if the person is the head of household, the spouse, the son/daughter, the maid, etc), if the person has a living mother and if the mother lives in the household. Besides that, the questionnaire brings detailed questions about income (from labor, from agriculture, from social security system, from rents, from interest rates and other transfers), labor (Economic Activity, unemployment, child labor, job position, with or without labor register, union affiliations, hours worked), migration (state of birth, if the person used to live in another country, state or municipality, the period that people live in the pace of residence), education (literacy, education attainment, private/public school, type of course, current school grade, years of study), fertility (if the woman had a live birth, and how many live births, by gender, she had; year, month and sex of the last live birth child; if she had a stillbirth; and if some children died, and how many children the woman had that is already dead, by sex), and wealth of the household (access to clean water, sewerage, garbage, TV, fridge, cooker, rooms).

The main characteristic of POF is that the survey brings detailed information on household expenditures. It has less detailed information about income and labor than PNAD, but it is the only survey with detailed information about household expenditures on food, education, health, clothes, energy, water, deposits, assets, etc. The survey is released every five years and it is representative for the country.

Finally, the Monthly Employment Survey monitors employment and labor income in the six biggest metropolitan areas of Brazil. There is no detailed information about personal characteristics, and also the survey is not representative for all the country, but it has the advantage that it follows the families for 4 months, after that families leave the sample and return to the sample in the same 4 months of the following year. So, we have panel data between one year and the other.

Besides that, Brazil has three broad enterprise surveys. Two of them are released by the Labor Ministry: the Employed and Unemployed General Register (CAGED), and the Annual Relation of Social Information (RAIS). These follow registered Brazilian companies and registered workers. The third is released by IBGE: the Annual Industry Survey (PIA) which follows registered industrial companies with more than 10 workers.

“IBGE, with support from the World Bank, is preparing big changes in its flagship surveys”
CAGED and RAIS are administrative registers of the Labor Ministry that investigate information about workers (age, schooling, gender, occupation, income, type of contract, nationality, time of service, admissions and layoffs), and also about establishments (size, address, economic activity, legal nature). RAIS is annual and representative by the country, states and municipalities. It covers 97% of the Brazilian formal labor market. CAGED is monthly and covers only 80% of the labor market registered with under the CLT regime (i.e. excluding temporary workers). Both are longitudinal.

PIA-Company has followed, since 1996, all the companies in the country that: have National Register of Legal Entities (CNPJ); are classified, by the Company Central Registry of IBGE, as an industrial company; and have five or more workers. It provides information about expenditure on assets, people, raw material, equipments, etc, and about revenues. The survey is longitudinal, and it has also information about local plants.

So, Brazil has amazing data of households and also of enterprises. The only weakness of the household data is that most of it is not longitudinal, and even with the forthcoming changes POF will continue to be non longitudinal and PNAD will follow households only for small period. Still missing is a survey that follows households for a long time. This would offer numerous research and policy-development opportunities, well worth the considerable efforts needed to cover this vacuity.

“Still missing is a survey that follows households for a long time. This would offer numerous research and policy-development opportunities”

A Dark Side...

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The ‘wake-up call’ channel does not seem to have been a significant source of vulnerabilities for Brazil, as opposed to the other BRICs

For instance, the so called “wake-up call” story hypothesizes that greater co-movement between stock markets could occur as investors reinterpret existing information which stimulates learning and awareness. For example, in the current context, seeing that high levels of credit (in particular mortgage lending) and indebtedness in the US banking and corporate sectors were at the root of the crisis (and thus associated with large declines in US stock markets), investors might have reassessed the value of their portfolios in countries with similar fundamentals (leading to declines in these countries as well). We find significant effects of this “wake-up call” hypothesis during the initial stages of the crisis, before the collapse of Lehman, but this channel seem to have been mute afterwards. During the early period of the crisis, countries with more vulnerable banking and corporate sectors did indeed face greater linkages with the US market. Surprisingly, we do not find any role for macroeconomic fundamentals.

However, the “wake-up call” channel does not seem to have been a significant source of vulnerabilities for Brazil, as opposed to the other BRICs and ECA countries which seemed to have suffered from investors’ learning effects. More specifically, the Brazilian banking sector was in relatively good shape. It appeared to have been the most healthy system in our sample (captured through the capital adequacy ratio), although its liquidity was not as high as in other countries. The level of private credit to GDP was also relatively small (at around 33% in 2006 versus 104% in
By Mauro Azeredo

Professor Renato Flôres is a reference in international trade in Brazil. He is a specialist appointed by the Government of Brazil to the World Trade Organization and a world renowned expert in applied general equilibrium models. Flôres is affiliated with the Fundação Getúlio Vargas in Rio de Janeiro and a Visiting Professor at the Institut d'Études Politiques de Paris - Sciences Po and the Department of Economics of the Technical University of Lisbon, as well as a Scholar of the Instituut voor Beheer en Ontwikkeling, University of Antwerp.

In this interview to BET's Mauro Azeredo, Professor Flôres provides insights about the significance of the ongoing trade dispute between Brazil and the US, in which Brazil has moved to apply last resort trade and intellectual property retaliations.

[Editors note: Mr. Flôres gave this interview before a provisional agreement between Brazil and the US was announced in early April.]

BET: Could you explain what is at stake in the dispute?

Renato Flôres: Brazil’s WTO dispute against the US on cotton subsidies began in September 2002 and, together with the sugar dispute against the EU, is regarded as a very important initiative. Both are based on the Subsidies and Compensatory Measures Agreement, a complex accord that regulates practices that can have an impact on commodity prices.

Brazil won both disputes handily. But although we were able to reach the end of the dispute with the EU, and they suspended or removed the damaging measures, in the case of the US this unfortunately did not happen. Obviously, the WTO works under international public law and it is assumed that the parts are in good faith, but the US has been using a number of artifices to avoid complying with the WTO’s ruling. In 2006 the case was over and the US sought the appeals body, losing again. Brazil already had a right to retaliate. The US then suggested that, since the Doha round was active, the issues might be resolved systemically. This gained them more time, until 2008, because the “Lamy Package” could indeed have solved the dispute had it been approved. So Brazil trusted the US and waited for another two years.

After the package floundered, Brazil has full right to retaliate as the US maintains three subsidies that had to be scrapped. One of them is a subsidy expressly prohibited by the WTO, that depends only on an executive decision – that is, they chose not to scrap it. The other two subsidies are actionable but were denounced, and now need Congress decisions. But there was no movement from the US in this front.

Thus, retaliation comes in due time, Brazil has been too patient. I should ad that retaliation is not a solution, though. No one is favorable to it at the onset, but in a situation like this retaliation imposes itself. It is an additional pressure so that the losing part works toward a solution.

BET: What have been your role in the dispute?

Flôres: In the case of the cotton dispute with the US I had no direct involvement.

BET: Brazil’s strategy to rely on the good will of the US and wait for a positive outcome has correct?

Flôres: Yes. Brazil played fair and consulted with the WTO on everything, including the retaliation amounts. It is important to note that Brazil was able to keep the dispute in the economic arena throughout - there was no contamination with political issues. This was treated as a normal trade and economic dispute that can happen between countries that have a big bilateral trade volume. So Brazil handled this very well and having done so won all the rulings. This is an emblematic case for our trade dispute history.

BET: Some analysts say that if Brazil were to actuality implement the trade and intellectual rights sanctions this could be counterproductive. How big are the retaliation rights and what could be the impacts on the Brazilian economy?

Flôres: The amount is not that high. The WTO authorized a US$ 829 million retaliation, based on 2008 values. US$ 591 million in goods and US$ 238 million in intellectual rights. I do not believe that it will be counterproductive. We
do not know which intellectual rights areas will be retaliated, there is some talk about the pharmaceutical industry, but my personal feeling is that the brunt will be on the media area – thus there will not be much of a loss for Brazil while the US will be hit harder. The rationale to retaliations and cross retaliations is that, if you do not get a compensation in the disputed item or in nearby areas, you can do so in another area, forcing the other sectors to help you pressure the cotton belt to solve the issue. I think that the audio and visual area is as sensitive to the US as the pharmaceutical area.

**BET:** What is the relevance of this dispute for the Doha round and commercial relations between the developed and developing countries?

**Flôres:** I believe that since the retaliation against the US is high, some people are over-dimensioning its effects. This is a normal procedure, that consolidates and strengthens the WTO and all its members, but it is eminently economic. For example: the US and Canada. We would be hard pressed to find a closer pair of nations. But Canada also has the biggest number of trade disputes with the US, because their trade volume is huge and disputes are unavoidable. So, first, this is a normal and necessary procedure within the WTO so that a solution to the disputes can be reached. I repeat, retaliations do not solve the issue, they are a pressure and compensation instrument. Second: normally, the part who has earned the right to retaliate waits before doing so. It is always better to find a negotiated solution and the other part may come up with a proposal in the last minute. Under this perspective, the issue has indeed a more systematic meaning: Brazil went ahead and retaliated against the US. And here I can see some externality that may eventually reach Doha: it draws attention to the distortive effects of agricultural subsidies, something that the US is not alone in doing. In this sense there could be an educational impact.

**BET:** So if Brazil settles for a package of compensations that do not include actions in the cotton sector this could be seen as a defeat?

**Flôres:** I do not think so. The sanctions are valid for a year and if the US does not do anything, they can be renewed again and again with corrected values, until the problem is solved with the scraping of the offending subsidies. However, if the US shows that it is willing to advance or if it offers a very good compensation package, Brazil may close the case and stop the retaliation.

**BET:** So the sanctions medicine is bitter enough to rouse the US?

**Flôres:** At least psychologically. This is a very technical area. One may ask how the retaliation amounts are calculated – don’t ask: there are applied general equilibrium models, including elasticity hypothesis, consumption retraction, tariff revenues, etc. So we cannot say now if it will have a large or small impact. In any case, it will be a nuisance for the US. The psychological and formal aspects are important: a country that is being retaliated against is seen as not playing by the rules. It lost in a formal procedure and allowed the situation to escalate to the point of receiving a sanction. The reputation and credibility issues, as we say in game theory, are very important. The material question can also be important – we’ll see. Especially in the intellectual rights area. No one will die over it but it may irk many concerns.

**BET:** Have there been retaliations against Brazil in the WTO in the recent past?

**Flôres:** No, Brazil has never suffered retaliations. An interesting story is our dispute with Canada over the aviation industry – Embraer against Bombardier. Canada won the first round, and even won the right to retaliate against us. But it choose not to, because the situation was very complicated and Brazil opened a panel against them. Brazil then won and earned the right to retaliate also. The two retaliations had more or less the same magnitude. Both remain as neither Canada nor Brazil scraped the offending

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By Mauro Azeredo

Massimo Cirasino is Lead Financial Sector Specialist in the Financial Sector Operations and Policy Department (Payments System / Financial Sector Infrastructure Unit). He leads many of the unit's country and regional interventions.

In particular, he is one of the two project managers of the Western Hemisphere Payments and Securities Clearance and Settlement Initiative (WHI) where he is also a diagnostic study team leader and the primary liaison between the World Bank and the International Advisory Council of the Initiative. Massimo is the primary contact at the Bank for the assessment of payments and securities settlement systems in the context of the joint Bank-Fund Financial Sector Assessment Program (FSAP). He gave this interview by e-mail to BET's Mauro Azeredo.

BET: Brazil was among the first countries to waive remittance fees to Haiti after the earthquake. What was the role of the Bank in this?

Massimo Cirasino: The World Bank started coordinating the major players in the area of Payment Systems in the LAC region immediately after the quake that hit Haiti. One of the ideas proposed to the Central Banks of the region was that of waiving the fees for the transfers of money to Haiti. The Banco Central do Brasil (BCB), based on the initiatives led by the WB, proposed the idea to the biggest banks in Brazil and to the National Banking Federation. The proposal was immediately accepted and the BCB took up charge of the coordination of the process. This action adds itself to the initiatives adopted individually by the banks to help the country. Among them, the opening of accounts to receive donations for some aid organizations, like the International Red Cross.

BET: What is the significance of this waiver?

Cirasino: There are no exact figures in terms of amounts, but what we see as the most important factor is the signal of cooperation and solidarity in a moment so delicate and dramatic. It is obvious that in similar circumstances any kind of aid is welcome and useful.

BET: What is the role of remittances in context of the disaster? Is there the danger of dependency and of investment disincentives?

Cirasino: In this context, the most important role of remittances is to assure that the people have access to funds and liquidity allowing them to buy food, medicines and cover the basic needs of their families. In addition, remittances are the faster and more direct mean to allow the quick restarting of the economic flows. We do not believe that they can create dependency and investment disincentives, also in consideration of the fact that remittances have always represented an important and constant resource of capitals for Haiti. Investments generally depend more on government actions, and in the case of the HIPC investments, they depend mainly on foreign cooperation.

BET: How can these private operations be made to have a broader social impact?

Cirasino: Cooperation between the financial public and private sectors could result in solutions having a broader social impact. Institutionalizing such kind of dialogue and approaches, through the creation of specific fora and councils, should be one of the priorities of every government.

BET: Have other countries followed suit? Are there any other outcomes of the Brazil/Bank remittance partnership?

Cirasino: A similar measure has been adopted in the Dominican Republic, where the banking sector has waived the fees for all the transfers made to Haiti from or to accounts held by aid organizations in the country.

BET: Should this be an emergency measure only or should countries permanently waive remittances fees to Haiti (and other HIPC countries)?

Cirasino: Such a measure could have beneficial effect if adopted permanently for the HIPC. The question is to find a way to implement it without distorting the market and
“Any form of payment systems cooperation at the regional level will have a beneficial impact”

Brazil and the Dominican Republic, expressed great appreciation and gratitude. They also wished other countries would join this effort. There is no data about the impact on the financial sector, but it is reasonable to assume that the impact has been positive.

**BET:** What could Brazil do more to help Haiti in the remittances area? Any south-south experiences to share?

**Cirasino:** Unfortunately, Brazil is not the main destination country for Haitian émigrés, therefore the impact of this measure cannot be increased in an exponential way. However, any form of cooperation in the Payment Systems Area at regional level cannot but have a beneficial impact in reducing the cost of sending remittances in the region. In this sense, the project of integration of the national payment systems of the Central American and Dominican Republic Monetary Council could be an example of the possible actions increasing the efficiency of the remittances flows. The WB constantly monitors and facilitates the discussions on this within the activities of the Western Hemisphere Payments Initiative, created by the WB and the Centro de Estudios Monetarios Latinoamericanos.

“Retaliation are rarely applied. Maybe this is why there is such a commotion over the episode”

measures. But with this we got a level playing field and each of the countries keeps its retaliation card. And life went on as competition conditions were equalized and both sides became satisfied. Thus, anything can happen. It is rare that retaliations are applied. Maybe this is why there is such a commotion over the issue.

**BET:** Do you think that the US may make a good proposal or will it seek to continue delaying?

**Flôres:** It is very hard to say. One may expect from the past that the US will continue to delay and that Brazil will have to implement both retaliations. At this point [editors note: mid March] I do not see concrete efforts from the US to come up with any consistent replies in the next sixty days, when the full retaliations take effect. However, once implemented, other factors can come into play – for instance, there is a new US ambassador coming in, and the US may be able to present a satisfactory proposal in the next six months.

A concrete measure such as the retaliation may move the intellectual rights concerns in the US Congress to mobilize and force the agricultural caucus to take this seriously.
South Africa, 43% on average in ECA countries, and 71% on average in our sample, suggesting a more limited role to credit shocks as well. The Brazilian corporate sector was not particularly vulnerable. Brazilian firms were not highly indebted or leveraged, although a large share of firms in the country had interest coverage ratio below one, indicating that they could have faced difficulties in meeting their interest payments with their cash flows (and thus were at a higher risk of defaulting on their debt obligations).

Lastly, real linkages capture basically two different trade effects: a competitiveness effect – when changes in relative prices affect a country’s ability to compete abroad – and an income effect – when the crisis reduces income and consequently import demand. Surprisingly, despite a sharp collapse in trade flows globally, this channel of transmission does not seem to have been at work. Overall trade openness was not a key predictor of the country’s response to the crisis. Trade composition did not seem to matter either since neither the ratio of fuel exports to total exports nor the share of agricultural exports to total exports were relevant to explain stock market co-movements.

In sum, evidences suggested that main channel of transmission of the crisis to Brazil appears to have been financial. Both direct and indirect linkages through the actions of international investors seemed to have played an important role. Other transmission channels at work during this crisis, such as the “wake-up call” effects, seem to have been less important to Brazil than to other emerging markets. And surprisingly, despite the large contraction in trade flows during the crisis period, we find no evidence for a real channel of crisis transmission. These results highlight the dark side of financial integration and liquidity as more integrated countries like Brazil seemed to have experienced greater co-movements with US markets. However, a priori, countries should not overreact and turn their backs to financial integration and market liquidity. Rather, through adequate regulation and supervision, they should try to manage the potential exposures that arise from having financially integrated and liquid markets.

"More financially integrated countries like Brazil seem to have experienced greater co-movements with US markets"
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As Diverse as Brazil
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effects of the current social policy and the challenges for the next government.

On the external front, Brazil announced sanctions worth roughly $830 million a year on US goods and rights over Washington's failure to implement WTO rulings on cotton subsidies. Professor Renato Flores of the prestigious Getulio Vargas Foundation (FGV), a prominent expert in applied general equilibrium models and former WTO specialist, shares his insights about the relevance of this latest round of 8-year old trade dispute. The Quarterly also interviewed Massimo Cirasino, World Bank's Lead Financial Sector Specialist in the Operations and Policy Department, on Brazil's decision to embrace a Bank-led initiative to waive remittances fees for Haiti in the aftermath of the earthquake.

Brazil sailed through troubled waters of the recent global economic turmoil almost unscathed compared to other countries, but not so in the capital markets. Tatiana Didier compared the Brazilian experience with other emerging economies to find out about the main transmission channels of the economic shock in Brazil.

The importance of logistics for growth and competitiveness is directly proportional to Brazil's continental dimensions. While the country has advanced with the PAC and other initiatives, logistic still cost Brazil more than 15% of its GDP. Jorge Rebelo and Sivan Tamir use the main findings of recent country and global reports to propose possible paths for reform.

Still in the Custo Brasil field, procurement is often blamed for delays and less than optimal results in public works. Luis Blancas, Alexandre Borges, Laura Chioda and Tito Cordella compare state experiences to understand if government implementation efficiency could benefit from the adoption of the so-called “phase inversion mechanism”.

Finally, Romero Rocha brings us up to speed on an exciting initiative to revamp several key economic and social surveys in Brazil, in partnership with the Brazilian Institute of Statistics and Geography (IBGE), while maintaining their traditional high quality. Enjoy your reading!

Makhtar Diop
Brazil Country Director

BET Publications

BET Daily Report: the most important daily economic news and indicators about the Brazilian economy [internal].

Brazil Monthly Report: updated information on economic developments, policy challenges, and economic trends [internal].

Quarterly Knowledge Report: information about our analytical work and short knowledge pieces on policy relevant questions.

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The Quarterly, Monthly and Daily Brazil reports are in the Brazil Intranet:
http://go.worldbank.org/EX2K94L7V0

IN THE LOOP
Some of the quarter’s noteworthy events

Events
5th World Urban Forum, March 22-26
Managing Director Juan José Daboub lead the Bank delegation, which showcased the new urban strategy.

International Teaching Hospital Seminar.
March 17-18

Eletrobrás Distribution Company International Seminar. February 4

III CONSAD Congress. March 15-16

Brazil Brown Bag Series

- CCTs and Supply of Education - An analysis of Bolsa Família, February 23—Anna Fruttero (LCSHS) and Phillippe Leite (HDNSP)
- Inside the Mind of Brazilians, March 30—Alberto Carlos Almeida (bestselling Brazilian author and social researcher)

Projects Approved

Second Minas Gerais Partnership for Development (additional finance) - $461 million—support Minas Gerais's innovative and highly successful State for Results public sector management program.

Rio de Janeiro Fiscal Sustainability, Human Development and Competitiveness DPL—$485 million—support Rio’s efforts to improve education, health, fiscal management and the investment climate, helping offset the impact of the global slowdown.

Pernambuco Sustainable Water—$190 million—assure universal access to safe water supply and sanitation services for the population of the one of the driest states in Brazil.

Sustainable Cerrado Initiative (GEF), - $13 million grant—guarantee the conservation of the most biodiverse savanna in the world, which covers nearly 25% of the Brazilian territory.