Economic watch

Financial Resilience of Brazilian Households

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1. Financial vulnerability and resilience of households

Many individuals and households experience moments of financial difficulty, prompted either by a personal shock, such as losing a job, or an economy-wide shock, such as a recession. People react to these stressful events in different ways. An important question is how quickly they can recover from these shocks. People that are able to pay their bills, have savings lined up, are in a position to receive a loan, or have insurance, will most likely rebound at a faster pace: they are financially resilient. Financial resilience is an individual's capability of enduring life events that negatively impact his or her income or assets. Since the publication of the first global demand-side database for the usage of financial services (World Bank, 2011), there has been an increasing amount of literature that studies the link between finance and growth to discover the mechanism for financial systems (financial contracts, markets, and intermediaries) to contribute to economic growth, entrepreneurship, technological innovation, poverty alleviation and the distribution of income.[1] Nevertheless, the use of financial services *per se* does not guarantee an improvement in welfare. Although financial innovation during the past decades has allowed households to increase their opportunities and smooth their consumption, not only over the business cycles but also over the life cycle (Dynan, 2009), the lack of use, or the misuse of these new financial tools - which constitutes one of the main roots of the last economic crisis - often prevents households and individuals from overcoming difficult situations and pursuing their life goals. Financial resilience is crucial for consumer welfare, and the formal financial system plays an important role in helping people build such capability. However, appropriate usage of financial services is a necessary condition.

Many scholars and organizations are increasingly interested in studying financial resilience and its impact on consumer welfare. The Center for Financial Services Innovation (CFSI) has been a pioneer in defining the new term of financial health: "the ability to build resilience from shocks and create opportunities to pursue one's aspirations". Good financial health gives people a comfortable lifestyle, affecting their overall happiness and physical health - which is why financial resilience is a critical issue for inclusive growth and welfare.

The aim of this document is twofold. Firstly, it makes a diagnosis of the degree of financial vulnerability of Brazilian adults. Secondly, we study how resilient they are, based on their ability to use financial tools to overcome unexpected shocks and pursue their goals. We take a specific look at the traditionally most vulnerable groups in Brazil, women, young adults and old people (over 65), in order to analyze their risk and inform policy making.

The importance of financial resilience in Brazil

Individuals in emerging countries are usually more exposed to macroeconomic and financial shocks affecting the country. The lack of a welfare state and effective consumer protection laws make individuals in developing countries more vulnerable. Brazil is an emerging economy that we take as a reference to illustrate our study.

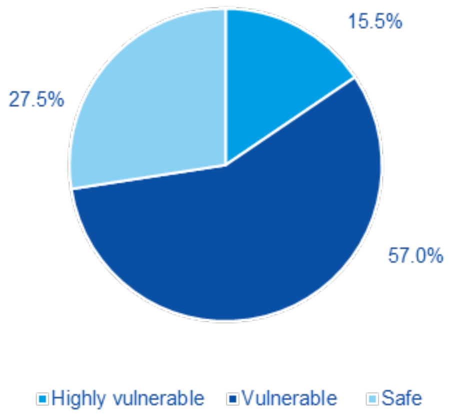
The probability of households and individuals experiencing negative financial shocks from job loss or problems in finding additional income sources is an important source of vulnerability for households, which requires attention. Vulnerable individuals are more likely to have limited financial resilience. According to the Financial Literacy and Financial Inclusion survey (2015), only 28% of the Brazilian adult population would be able to cover an unexpected expense of a value equal to their monthly income.[2] This is worrisome given the high unemployment rate,[3] low economic growth and lack of a welfare state able to provide safety nets for fragile households and individuals.

1: See Demirguc-Kunt and Levine (2018) for a detailed review of the literature.
2: See Appendix A for detailed information on the Financial Literacy and Financial Inclusion survey (2015).
3: The unemployment rate is near 13 percent, one of the highest levels in the last 15 years (Instituto Brasileiro de Geografia e Estatística, IBGE, 2018).

Based on this limited capacity that individuals have to deal with financial shocks relying solely on their own resources, we classify the Brazilian population according to their degree of vulnerability. We define vulnerability in relation to the length of time individuals are able to cover their costs of living in case they find themselves with no income. Specifically, to measure vulnerability, we rely on the time span that individuals would cover their cost of living in case of losing their main source of income and without asking for a loan.[4] We categorize individuals in three different groups according to their degree of financial vulnerability.

The **highly vulnerable** group encompasses those that are able to cover their cost of living for less than a week. The **vulnerable** group comprises individuals that can cover the cost of living for more than a week but less than three months. Finally, the **safe** group includes all those that can cover the cost of living for more than three months.

Figure 1 Degree of financial vulnerability in Brazil, 2015 (Percentage of adults in each category)



Source: BBVA Research with data from the OECD/INFE Financial Literacy and Financial Inclusion Survey (2015)

Brazil has a high percentage of the adult population labelled as vulnerable. As can be seen in Figure 1, just over one fourth of the population (44,892,336 adults) is classified as safe, while about three fourths of the population is vulnerable (57% or 118,352,521 adults) or highly vulnerable (15.5% or 25,302,953 adults). These results are in line with the information in the Global Findex database, which reports that 52% of adults cannot come up with emergency funds. Moreover, nearly 35% of the adult population receive transfers or payments from the government, and 24% rely on informal sources of lending to raise emergency funds.

Assuming that the main source of people's income is either wages or public subsidies, in order to assess how dangerous this vulnerability can be, we look at the unemployment duration structure. We observe that more than 30% of unemployed workers take at least six months to find a new job.[5] Accordingly, the need of external resources is likely to be high, since the unemployed population covered by public benefits is relatively small (7.9%).[6]

Focusing on traditionally vulnerable groups in society such as women, young people and elderly adults, we observe that the female population has a higher percentage of highly vulnerable individuals than the male population, 19% compared with 12%. Almost 20% of the younger population, including those who just started working aged below 26 are classified as highly vulnerable. The group with the highest percentage of highly vulnerable individuals is the retired population (24%). These numbers highlight the urgency of helping the vulnerable population to improve their financial resilience. According to the World Bank (WDI), 8.7% of the Brazilian population is considered as living below the national poverty line. However, financial vulnerability is much more pervasive.

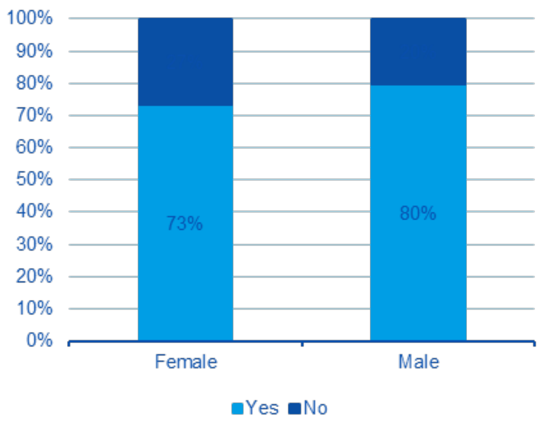
4: The survey contains the following question: "If you lost your main source of income today, how long would you be able to cover your cost of living without taking a loan?"
5: Data from the Monthly Employment Survey (PME) 2016, IBGE.
6: ILO Social Security Inquiry Database 2016

2. Financial tools for improving resilience

In this section, we present some evidence on the participation in the formal financial system through four metrics that help in building resilience through better financial health. The formal financial system comprises all the institutions, such as banks, microfinance institutions and credit cooperatives that are supervised by a national (federal) authority. Individual participation in the formal financial system provides a more secure environment than other informal financial providers (i.e. informal lenders, family, friends, etc.) for people to manage their personal finance. According to the Global Findex database, 70% of Brazilian adults had a bank account with a financial institution in 2017. This is a slight increase of 3% compared with 2014. Even though the levels of participation in the formal financial system are relatively high compared with other developing countries, the percentage of people using banks for savings and borrowing remains low. Only 15% of Brazilian adults saved any money with a financial institution during the last 12 months (2017), which is 18% higher than in 2014. When it comes to credit, 26% of adults borrowed from a financial institution or used a credit card during the last 12 months (2017), which is 22% lower than in 2014. In order to assess how people use these formal financial services to build resilience, for the case of Brazil, we combine information on both financial tools and financial behavior. We compute four indicators based on hypotheses by using data from the Financial Literacy and Financial Inclusion survey (2015).

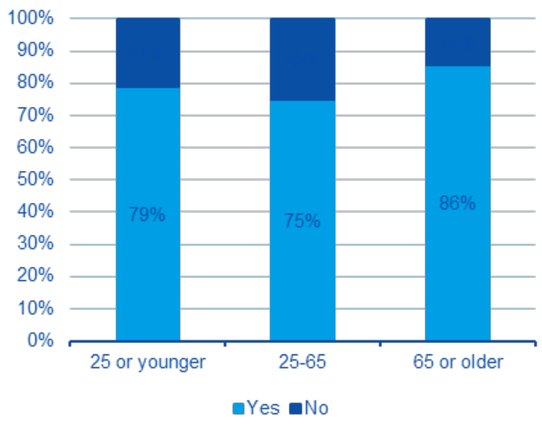
Hypothesis 1: Spending. If individuals are not able to comply fully with their financial obligations they will surely not be able to bounce back quickly from a financial shock: they are not financially resilient. Figures 2 and 3 present whether individuals are able to pay their bills on time and in full, which would predict their reaction to an unexpected financial shock.

Figure 2 Are you able to pay your bills on time and in full? by gender (Percentage)



Source: BBVA Research with data from the OECD/INFE Financial Literacy and Financial Inclusion Survey (2015)

Figure 3 Are you able to pay your bills on time and in full? by age groups (Percentage)



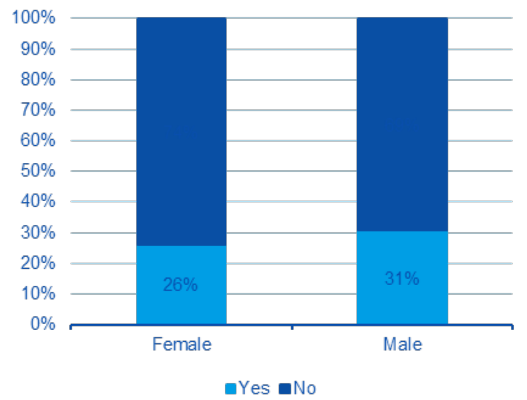
Source: BBVA Research with data from the OECD/INFE Financial Literacy and Financial Inclusion Survey (2015)

As we observe in Figure 2, men are more likely to be able to comply fully with their financial obligations. Additionally, single parents have greater difficulty paying their bills, as they have at most one income stream, so individual vulnerability can be directly extended to the entire household. In Brazil there is a greater percentage of single mothers (14.8%) than single fathers (8.6%). Thus, women are more fragile than men when looking at payment behavior.

Figure 3 shows the ability to commit to regular payments by age group. The retired group is in the best position when it comes to being able to pay their bills. This might be because they have a more stable source of income (i.e. social benefits) and usually do not have so many dependents, which lowers their expenses. On the other hand, the group of people between 25 and 65 years old experience more problems for paying bills in full and on time. They normally have families, so their expenses are higher.

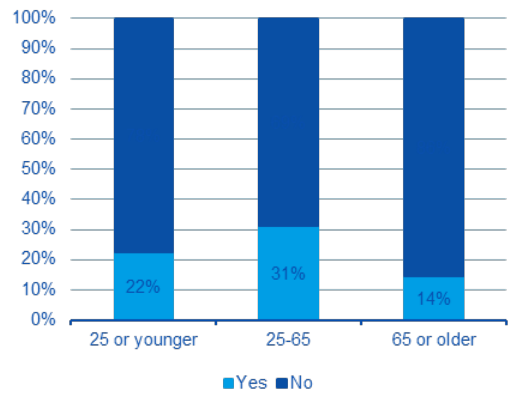
Hypothesis 2: Long-term savings. Individuals that build savings will be able to use them in case of a financial shock. Figures 4 and 5 look at whether Brazilians have savings for the long run.

Figure 4 Do you have enough savings for the long run? by gender (Percentage)



Source: BBVA Research with data from the OECD/INFE Financial Literacy and Financial Inclusion Survey (2015)

Figure 5 Do you have enough savings for the long run? by age group (Percentage)



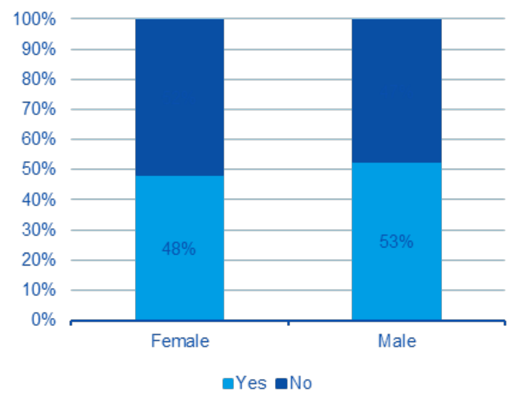
Source: BBVA Research with data from the OECD/INFE Financial Literacy and Financial Inclusion Survey (2015)

As with spending, females are worse off when it comes to savings: they have slightly less savings than males (Figure 4). Women have lower average incomes than men so they do not have as much extra money to set aside for savings.

The retired group has the least amount of savings (Figure 5). This makes intuitive sense, as they find themselves in the life period in which they need to use up their savings rather than accumulate more. Younger adults are still not thinking as much of the future as the 25- to 65-year-olds are, so saving tends to seem less important to them.

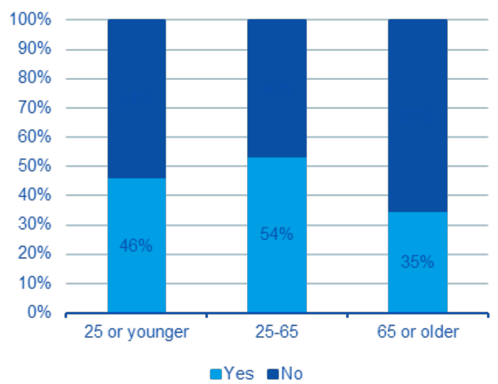
Hypothesis 3: Loans. Individuals that are able to get a loan have a higher chance of recovering from a shock. A way to find out if someone can apply for a loan is to look at the current debt level and the capacity of saving. Figures 6 and 7 look at whether individuals have sustainable debt levels, which is a necessary condition for having a good credit score.

Figure 6 Do you have a sustainable debt level? by gender (Percentage)



Source: BBVA Research with data from the OECD/INFE Financial Literacy and Financial Inclusion Survey (2015)

Figure 7 Do you have a sustainable debt level? by age group (Percentage)



Source: BBVA Research with data from the OECD/INFE Financial Literacy and Financial Inclusion Survey (2015)

As with spending and saving, men are better off than women when it comes to credit sustainability. (Figure 6). Looking at age groups, 65-year-olds and older have a much smaller debt sustainability than the other two age groups (Figure 7). A potential explanation is that this group has lived longer and hence they might accumulate more debt over the years. Also, they are less capable of building resources for repaying their credit obligations since they no longer participate in the working force and their income probably decreases upon retirement. Moreover, Almenberg *et al*. (2018) analyze the understanding of debt behavior in household finances and they point out the importance of intergenerational transmission of behavior and attitudes to debt. They also find some evidence of the influence of social norms in borrowing decisions, which discourages debt attitudes.

Hypothesis 4: Insurance. Having insurance can help individuals to ease out of a financial shock.

On average, only 3% of Brazilians have insurance. As with the other financial tools, men are more likely to have insurance (3.8%) than women (2.1%). One of the reasons might be related to income level and it can also be attributed to the gap between women and men when it comes to financial literacy and knowledge. Looking at age differences, the younger and older population are less likely to have insurance (1.9%) than the working population (3.4%). This might be because the working population is at greater risk than the younger population, who feel that they do not need insurance. Similarly to women, the elderly population also lags behind on financial knowledge.

In brief, payment behavior seems to be the one with the best performance out of the four verticals taken into account for monitoring financial resilience. About two thirds of the adult population claim that they can pay their bills in full and on time. However, results of the three remaining verticals are worrisome. There are few people who save for the long run. Moreover, around half of the population have do not have sustainable credit, so their credit scorings might not allow them to access credit in case of need. Finally, the amount of people protected by insurance is negligible.

As in the case of vulnerability, women score worse on all the financial tools explored in this study. Part of this gender gap can be explained by different factors, which requires a deeper analysis for better understanding. Some of the factors that foster financial health and overcome vulnerability by creating financial resilience are income, financial inclusion and financial literacy. As regards participation in the labor market, more men (74.7%) than women (53.1%) participate in the workforce, which lowers the average overall income of women. A lower income causes harder compliance with financial obligations such as paying the bills and reduced ability to pay off debts. In addition, the lower levels of credit sustainability for women could be related to the existence of a financial knowledge gap between women and men, which lowers women's chances of knowing how to handle their debt. This gap exists in part due to cultural reasons. Men have traditionally handled finances in the household. In Brazil, in 2015 at the time of the survey, 27% of women took financial decisions by themselves versus 45% of men. Additionally, obtaining insurance and saving money is in many cases not possible, given that there is no money to spare after paying for daily expenses.

Finally, informal financial tools such as personal networks provide financial resources. They also have an important role when it comes to overcoming vulnerability through financial instruments. At the time of the survey (2015), half of Brazilians had gone through a period in the last 12 months in which their expenses were higher than their income. When this happened, 15.4% resorted to their family and friends for money, while 19.4% took on extra jobs or worked overtime. But these informal resources are often not reliable. Family and friends might at some point decide to stop lending money or they might also be suffering from financial stress and will not able to provide money. Additionally, extra jobs are not always available. This is why using formal financial instruments, such as taking out a loan from a savings account, or using a credit card for a cash advance, are usually better options. However, only 15.4% of Brazilians used the latter tool.

3. Conclusions

The vast majority of the Brazilian population is financially vulnerable, especially women, young adults and elderly population. This vulnerable population is more prone to experiencing negative financial shocks and not being able to recover swiftly from them. Financial tools can be used by individuals to increase their financial resilience. Our study shows that many Brazilians, especially the most vulnerable parts of the population, do not take advantage of them.

Overall, women use the formal financial system to increase financial resilience to a lesser extent than men do. It might be due to lower income levels or less financial knowledge. When it comes to age groups, generally the working population (25 to 65 year-olds) do a better job at using financial tools to increase financial resilience than young adults or the elderly population. There is one exception, and that is that their income does not always allow them to pay all their bills on time and in full. Moreover, the use of informal financial tools such as personal networks is relatively high among the Brazilian population.

Financial education programs are key to increasing financial knowledge and improving financial behavior and awareness. They are especially necessary for women, who are more vulnerable and less capable of building financial resilience. Public and private programs that increase incentives to save or buy insurance can also be useful. For example, implementing a system for employees to automatically make a minimum monthly contribution towards their savings account, unless they decide to opt out. Financial vulnerability, which is overwhelming in Brazil, limits individuals' ability to maximize their utility and well-being. This is especially worrisome among women, among the aged and younger adults.

Appendix A

Financial Literacy and Financial Inclusion survey (2015)

The data used to analyze financial resilience in Brazil comes from a survey commissioned by the Brazilian Central bank that is based on the OECD/INFE Financial Literacy and Financial Inclusion Measurement Toolkit. This survey was carried out in April 2015 by conducting face-to-face interviews with 2002 Brazilian adults. 21 other countries also conducted surveys based on the OECD/INFE toolkit, which allows data to be compared. The surveys are designed to measure the extent of an individual's financial knowledge, behavior, attitude and inclusion. They consist of demographic questions (age, gender, education level, etc.), financial behavior questions (holdings of savings, insurance, credit card, etc.), and financial literacy questions (familiarity with different financial products, understanding of financial terms such as inflation, etc.)

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