

Credit Concession in the Brazilian Banking Sector in the Period of the International Financial Crisis

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Abstract— The international financial crisis of 2008 was triggered in the United States and affected the global financial scenario, since it caused a lack of liquidity in the market and credit was restricted. In this context, the objective of this research was to compare the evolution of credit granted by public and private banks in Brazil before and during the crisis, covering the years 2002 to 2009. The study was conducted through a bibliographic and quantitative research, based on data obtained from the Ministry of Finance and the Central Bank of Brazil. It was found that from September 2008 to December 2009, the growth of credit operations of private institutions was 3.91% compared to a 55.62% increase in public institutions.

Keywords— Credit Concession; Financial Crisis; International Financial.

I. INTRODUCTION

Current economic relations make countries interdependent. For this reason, the crises that begin in one country can spread to others. The Great Depression, which occurred in 1929, stagnated the U.S. economy for years, and demonstrated the fragility of the banking system and the risks present in it, due to the asymmetry of information, which indicated the need for financial regulation (FELIPPI, 2011). From the 1970s, the Keynesian economic model, which advocated government intervention, gave way to the neoclassical economic model, which preached a neoliberal ideology, with reduced participation of the state and deregulation of the financial market in search of efficiency and self-regulation (BRESSER-PEREIRA, 2010).

Banking crises are reflected in banks' balance sheets, either by a crisis of investor confidence or by bank insolvency (FELIPPI, 2011), which may reduce the credit available to economic agents, hindering the resumption of economic growth. Credit becomes relevant in periods of recession, because according to Araujo and Cintra (2011), the granting of credit can contribute to minimize the effects of a financial crisis. The banking sector, taking and lending resources to society, is fundamental to maintain the proper functioning of the financial flows of the population, companies and government (BOTELHO, 2007).

In this study, the objective was to compare the evolution of credit granted by public and private banks in Brazil

before and during the crisis, covering the years 2002 to 2009. To this end, we analyzed the behavior of credit in banks established in Brazil, of public and private capital, both foreign and domestic, in the years in which the country faced the effects of the financial crisis, in comparison with the years prior to the crisis, when economic activity was stable. During the period of the crisis, the Brazilian government took a series of countercyclical measures aimed at recovering economic activity (MINISTRY OF FINANCE, 2011), and it will be verified whether among these measures, there was an incentive to credit through government-owned banks.

II. THEORETICAL REFERENCE

2.1 The International Financial Crisis

The international financial crisis, also known as the subprime crisis, which began in August 2007 in the U.S., is considered the biggest financial crisis since 1929, when the New York Stock Exchange crashed (CAVALCANTE JR., 2012). Financial crises cause a sudden change in asset prices, followed by moments of panic, where irrational behavior prevails (KRUGMAN, 2010).

In order to understand the financial crisis caused by the devaluation of subprime mortgage derivatives in the United States, it is necessary to verify the evolution of the American residential construction market (GONTIJO, 2008). Also according to the author, loans for residential

acquisition provided to borrowers who were unable to provide an entry value, or who could not prove income, or both, were defined as subprime. The credit promoting institutions understood that if the borrower could not comply with the payments, his residence, which was the object of the financing, would be taken by the creditor and sold in the market, which was heated, envisioning the valuation of the properties given as collateral (GONTIJO, 2008).

With the market heated and the real estate increasing its value, borrowers had the possibility to refinance them (GONTIJO, 2008). According to Guttman (2008), financial innovations related to real estate ownership, such as mortgage refinancing and loans for the purchase and renovation of real estate made it possible to turn capital gains into cash. This becomes possible without the need for the owner to sell his home, since property prices were rising (GUTTMANN, 2008). Until the year 2006 this subprime market had a good functioning (GONTIJO, 2008). However, in the summer of 2006, property prices suffered fall, resulting from the increased supply of housing (GONTIJO, 2008). As this market was being valued, with gradual increases in house prices, the supply of homes began to increase, because the market was attracting investments, and this increase in supply led to falling prices (GONTIJO, 2008). Financing and refinancing of subprime mortgages became scarce due to the retraction in U.S. property prices, generating a real estate crisis (FELIPPI, 2011).

The borrowers of housing loans classified as subprime depended on the valuation of the property to migrate to mortgages with prime rating, by the latter presenting lower interest rates (GONTIJO, 2008). Since there was no expected appreciation of the property, then not allowing the transition to a lower interest rate, many borrowers could not refinance their properties, and presented delays in instalment payments (GONTIJO, 2008). The real estate suffer devaluation with the growth of default on mortgages and the vacancy of these homes, creating a vicious circle that reaches the housing market as a whole, including in prime mortgages (FELIPPI, 2011). So much so that in March 2008 about 8.8 million mortgages were with a balance higher than the value of real estate, which ended up encouraging the non-payment of the loan by the borrowers (GONTIJO, 2008).

With the interconnection between markets, banks are also affected by this economic shock (FELIPPI, 2011). According to Mazzucchelli (2008), the crisis was preceded by the fragility of regulation and the relaxation in the perception of risks, which led to a wave of speculation with disastrous consequences. The credit market suffered an

exogenous shock from the American real estate market, where public policies contributed to an inadequate pricing of mortgage credit risk (FELIPPI, 2011). Doubtful financial operations spread, leveraged by credit growth, which occurred both in the 2008 crisis and in the 1929 crisis (MAZZUCHELLI, 2008).

Mazzucchelli (2008) argues that with the worsening of the crisis the intervention of governments was broad and immediate, abandoning the liberal economic thinking preached until then, which argued that markets were efficient or self-regulated, which changed with the advent of the crisis. The states assumed responsibility for defending financial institutions, providing liquidity, fully guaranteeing deposits, reducing basic interest rates and trying to avoid further credit contraction (MAZZUCHELLI, 2008). Still according to the author, some governments acted with a higher degree of correctness, as was the case in England, or a lower degree of correctness, as in the United States. The crisis was no longer aggravated by the immediate and continuous injection of public resources, given the preference for liquidity, with a flight to public debt bonds, especially American (MAZZUCHELLI, 2008).

The action of governments, classified as Keynesian, was to recover the credit-income cycle, even though it was necessary to nationalize, even partially and temporarily, a significant part of the financial system (MAZZUCHELLI, 2008). The performance of central banks was fundamental for the recovery of the economy. The US Central Bank (CB) and the European Central Bank (ECB) injected US\$ 3.2 trillion into the money markets between July 27 and September 12, 2007 (FREITAS; CINTRA, 2008).

In Brazil, the year 2007 was marked by large projects in Brazil, both in the public and private areas, and this economic optimism extended to the following year (DULCI, 2009). It was expected that the country would suffer only a residual influence of the crisis, and that there was discussion about the detachment of the so-called emerging economies, such as the Brazilian one, in the face of the crisis in the central economies (DULCI, 2009). The aim was to verify what would be the degree of detachment, given the different characteristics and circumstances of the Brazilian economy. The year 2008 ended with recession, increased unemployment and the threat of deflation (DULCI, 2009).

Banks worked with other unregulated financial institutions, and the effects of the crisis that began in the United States extended to banking institutions in other countries, demonstrating the fragility of the banking system (FELIPPI, 2011). Banks raised the requirements for guarantees in the granting or renewal of credit lines, in

addition to increasing interest rates on active operations in the last quarter of 2008 (FREITAS, 2009). This increase was due to an increase in the cost of funding for banks and an increase in the risk spread due to increased uncertainty, aggravated by losses resulting from operations with dollar derivatives (FREITAS, 2009).

Several countercyclical measures were taken by the State between 2008 and 2010, such as the increase in the release of funds for financing through the Economic and Social Development Bank (ESDB). My Home My Life program, encouraging the acquisition of own housing mainly for the lower-income population, increase in the limit of payroll loans to retirees (MINISTRY OF FINANCE, 2011). According to the Central Bank of Brazil (2010), credit operations grew again in 2010, after the effects of the financial crisis. The dynamism of domestic demand contributed to this, benefiting from the recovery of the labor market and the positive expectations of economic agents (Central Bank of Brazil, 2010).

2.2 Bank Credit

The Brazilian banking system has been undergoing changes. The country had a Central Bank only in 1965, with the approval of Law 4,595 of December 31, 1964. Before that, the National Treasury, the Superintendence of Currency and Credit (SUMOC) and the Bank of Brazil exercised the functions of the Central Bank (ALMEIDA, 1997). In the mid-1990s, the banking system underwent significant transformations, such as the reduction in the number of financial institutions, the entry of international banks, the adhesion to the Basel I agreement, the integration of the domestic and international banking systems and the implementation of the Real Plan (ARAUJO; CINTRA, 2011).

Banking institutions operate with surplus agents, who have resources, and deficit agents, who take resources, acting as an intermediary in this relationship (YOSHIDA JR, 2014). Deposit-taking and lending are considered the two main functions of commercial banks (YOSHIDA JR, 2014). For this reason, banks define liquidity and credit supply conditions in the economy (SARAIVA; PAULA, 2011), and interest rates act to balance this relationship between supply and demand (ARAUJO; CINTRA, 2011). Banks have evolved this intermediation, mainly in the last 30 years, covering investment funds, securitizations, capital markets and regulatory arbitration instruments (FELIPPI, 2011).

The financial sector is strategic to a nation's economy, given the global economic interdependence (BUTTON, 2007), and financial crises initiated in one nation can spread to other trading partners. Financial crises affect asset prices in the economy and do not necessarily affect credit distribution

(FELIPPI, 2011). The decrease in the granting of credit may occur due to the reduction in economic activity, which causes a decrease in demand for loans, or due to liquidity or capital problems of institutions that are intermediating the credit process (YOSHIDA JR., 2014).

However, with the financial crisis of 2008, the granting of bank credit is affected. The regulatory apparatus already present in the financial system in 2007, such as international agreements aimed at preserving market liquidity, was not sufficient to prevent the paralysis of the credit market (FELIPPI, 2011), and decentralized supervision structures demonstrated fragility with the crisis (FARHI; CINTRA, 2009).

After the subprime crisis and with the application of Basel III, the relationship between bank capital and the granting of credit gains space for further discussion (YOSHIDA JR, 2014), since the regulatory tripod, composed of the creditor, deposit insurance and minimum capital requirement was not sufficient to avoid the crisis (FELIPPI, 2011). Then, banks began to have stricter regulations to contribute to financial stability, avoiding systemic risk, requiring a minimum capital requirement in order to avoid excessive leverage (FELIPPI, 2011).

Public banks foster economic development, especially in the long term, where private banks practically do not operate (ARAUJO; CINTRA, 2011). Credit received government incentives through the reduction of interest rates of public banks, especially in the two main ones, Bank of Brazil (BB) and Federal Savings Bank (FSB), which was observed during the financial crisis (YOSHIDA JR, 2014). The Economic and Social Development Bank (ESDB) is one of the largest development institutions in the segment that operates in the world, BB is the institution with the largest volume of Brazilian rural credit and CEF represents the institution that most fosters the housing system in the country (ARAUJO; CINTRA, 2011).

In the fourth quarter of 2008, with the global financial crisis, private banks retracted credit, which was sustained by public banks (ARAUJO; CINTRA, 2011). The Brazilian government sought to assist in the resumption of economic activity through measures such as increasing financial contributions to public banks, reducing the requirement for compulsory deposits by banks and reducing basic interest rates (MINISTRY OF FINANCE, 2011). Public banks act in an anti-cyclical manner as to the supply of credit (ARAUJO; CINTRA, 2011). Therefore, the financial crisis demonstrated that public banks contributed to the resumption of economic activity in Brazil, filling the gap left by private banks, which contracted credit due to risk aversion (ARAUJO; CINTRA, 2011).

III. METHODOLOGICAL ASPECTS

This research is classified as applied, regarding the nature (COLLIS; HUSSEY, 2005), and as exploratory, regarding the objectives (COOPER; SCHINDLER, 2003). Considering the technical procedures, it is bibliographic (GIL, 2002), with research in articles, dissertations and theses obtained in the CAPES database.

Regarding the approach, it is a quantitative research (MARCONI; LAKATOS, 2009). The database of this study was extracted from reports issued by the Ministry of Finance and the Central Bank of Brazil. The period analyzed was from 2002 to 2009, in order to verify the granting of credit before and during the international financial crisis of 2008.

The objective was to compare the volume of credit granted by public and private banks during the financial crisis, covering the years 2008 to 2009. In order to make a comparison with the period prior to the financial crisis, data for the years 2002 to 2007 were analysed.

The sample covers the 50 largest financial institutions in the National Financial System, classified into public and private capital.

The evolution of the monetary volume of credit granted in Brazil was obtained in millions of real during the period studied. It was also analyzed how much the credit granted by public and private financial institutions represented a percentage of the total credit granted annually in the country.

IV. PRESENTATION AND ANALYSIS OF RESULTS

The government's actions were aimed at resuming economic activity in the country (MINISTRY OF FINANCE, 2011). For the implementation of many of the anti-crisis actions, the government acted through public financial institutions, where the participation of Brazilian Bank (BB), Federal Savings Bank (FSB) and Economic and Social Development Bank (ESDB) stand out, as can be seen in Table 1 (CENTRAL BANK OF BRAZIL, 2009). Table 1 shows the evolution of the credit operations of these institutions, which are the three largest public financial institutions in the National Financial System (NFS).

Table 1 Total credit operations of the three largest public financial institutions of the NFS in millions of real

| Finan cial Institu tions | Dez/ 200 2 (R\$) | Dez/ 2004 (R\$) | Dez/ 200 6 (R\$) | Dez/ 200 7 (R\$) | Set/ 200 8 (R\$) | Dez/ 200 8 (R\$) | Dez/ 200 9 (R\$) |
|-----------------------------------|---------------------------|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| BB | 51. 470 | 74. 844 | 113. 869 | 138. 849 | 175. 613 | 190. 888 | 261. 779 |
| FSB | 19. 643 | 25. 564 | 41. 220 | 50. 798 | 63. 364 | 73. 162 | 115. 516 |

| | | | | | | | |
|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| ESDB | 44. 924 | 54. 094 | 67. 121 | 74. 471 | 88. 409 | 104. 620 | 153. 809 |
| TOTAL | 116. 036 | 154. 502 | 222. 210 | 264. 118 | 327. 386 | 368. 670 | 531. 104 |

Table 1 shows the evolution of credit operations in the three largest Brazilian public institutions. In the seven-year period, from December 2002 to December 2009, there was an increase of 508.61%, 588.08% and 342.38% in the volume of credit granted by BB, FSB and ESDB, respectively (CENTRAL BANK OF BRAZIL, 2009). In the case of ESDB, these are direct operations, granted with reduced interest rates, for specific segments that it intends to encourage (CENTRAL BANK OF BRAZIL, 2009). According to Freitas (2009), in order to offset the reduction in credit by private banks, public banks increased and created new credit lines.

We highlight the two-year period from December 2007 to the same month of 2009, when the increase in credit was more pronounced. The growth in BB, FSB and ESDB operations was 188.54%, 227.40% and 206.54%, respectively (CENTRAL BANK OF BRAZIL, 2009). FSB and ESDB more than doubled the credit provided in these two years. It is observed that the growth of these institutions in the five previous years was 269.77%, 258.61% and 165.77%, and the ESDB presented a lower growth in these five years than in the two years in which the country was going through the crisis (CENTRAL BANK OF BRAZIL, 2009). Long-term operations over five years are shown in Figure 1 for 2010.

More than half of the long-term operations are provided through the Economic and Social Development Bank (ESDB), i.e. 59.82%. Adding its participation together with CEF and BB, it has a total of 86.63% of the operations with a term above five years in 2010 granted by these three public financial institutions (MINISTRY OF FINANCE, 2011).

Freitas (2009) states that private banks had a conservative attitude in the face of the international crisis, causing a movement of portfolio reallocation and credit retraction, contributing to the deceleration of economic activity. From December 2002 to December 2009, the share of private financial institutions in the Brazilian credit market decreased from 59.69% to 50.78% (CENTRAL BANK OF BRAZIL, 2009). On the other hand, the participation of public financial institutions increased from 37.96% to 46.56% in the mentioned period (CENTRAL BANK OF BRAZIL, 2009). However, the biggest difference is observed exactly in the period of the crisis, from September 2008 to December 2009, when the operations of private institutions went from 60.34% to 50.78% of the total market, while the credit granted by public institutions went from 36.94% to 46.56% of the total credit of the SFN (CENTRAL BANK OF BRAZIL, 2009).

According to the Ministry of Finance (2011), public banks have taken the lead in granting credit since the critical period of the crisis. The decrease in the concession of credit has negative effects on economic growth (COLOMBINI, 2015).

From September 2008 to December 2010, credit offered by public banks grew 81.2%, while the balance of credit granted by private banks with national capital grew 35.4%, and by foreign private banks the increase was 20.2% (MINISTRY OF FAZENDA, 2011). Of the total credit granted in 2010, public banks accounted for 41.9%; private banks for 40.7%; and foreign banks for 17.4% (MINISTRY OF FAZENDA, 2011). With the country's economic situation stabilized as of 2010, the government eliminated fiscal stimuli and reduced government spending (MINISTRY OF FAZENDA, 2011).

V. CONCLUSIONS

When a country's economy is depressed, the population is subjected to negative effects, such as the bankruptcy of companies, low levels of production and unemployment. At times such as these, the government can use countercyclical measures to help the country achieve economic stability. This is how most governments acted through the effects of the 2008 international financial crisis, including the Brazilian one.

The government implemented countercyclical measures in Brazil in order to combat the effects of the depression that plagued the world economy, especially between 2008 and 2009. Among these actions, the one addressed in this paper was the expansion of credit granted by public financial institutions. Based on an analysis of the evolution of credit provided by public and private financial institutions as of 2002, it was found that the former showed robust growth at a time when the economy was in crisis, between 2008 and 2009, while the latter experienced the opposite, with a decrease in credit supply.

After analyzing the evolution of credit granted by private and public institutions, it was concluded that the latter, due to the expansion of credit at a time when the country was in depression, contributed to the Brazilian economic recovery. Credit stimulates an increase in consumption, which affects domestic demand, reflecting production and employment, thus contributing to economic growth. Thus, the importance of these institutions is emphasized, especially in times of crisis, since the government can act through them.

The theme provides continuity, and researchers are suggested to deepen the study by comparing the interest rates applied to credit operations between public and private

institutions. It can also be analyzed the credit behavior after the recovery of economic activity, as of 2010.

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