

# Mercado de crédito

NOTA DE POLÍTICA PÚBLICA





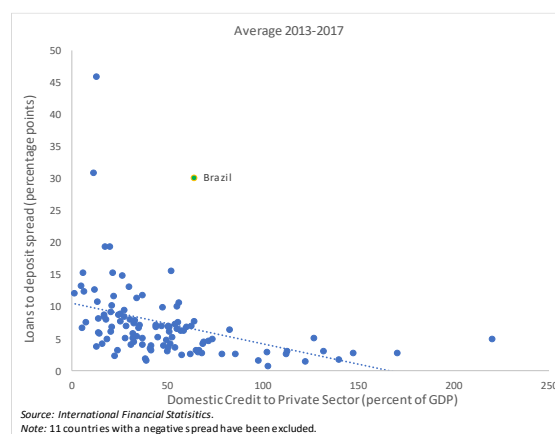
## Policy Note

### Brazil - Improving the Efficiency of Credit Markets

Historically macro-instability has undermined the development of free market finance beyond short-term finance, and thus motivated policy makers to develop extensive interventions for longer term finance through directed lending. Private financial intermediation is mostly short term in nature and costly. Very high interest rate spreads make Brazil an international outlier, with higher net interest margins than in peer countries. Overhead costs and loan loss provisioning are the main components of net interest margins, but the high and varying interest rates in some segments of the credit markets raise questions whether they are functioning well. The extensive earmarked credit is associated with significant fiscal costs, have implications for monetary policy, and there is evidence that it disrupts the efficiency in the free credit market. Directed credit, generally provided at regulated interest rates, makes up half of total credit and amounts to about a quarter of GDP. Subsidies embedded in directed credit peaked at 2.1 percent of GDP in 2015, but have since declined. Recent reforms, most notably the TLP reform, address the pricing of directed credit reducing the embedded subsidies. In addition, financial infrastructure gaps in the credit reporting, and insolvency and collateral regimes have also presented challenges for an effective functioning of the credit markets, resulting in higher costs for the banking sector. In order to address credit market inefficiencies, reform directions include: (i) evaluating and promoting competition in the financial sector; (ii) reviewing and optimizing public interventions; and (iii) undertaking financial infrastructure reforms in the credit reporting, secured transactions, and insolvency and collateral execution frameworks.

Historical macroeconomic volatility has led to a credit market environment characterized by heightened interest rates and short maturities.

- 1. Low savings, fiscal deficits, inflation, as well as elevated and volatile interest rates have held back the evolution of a well-functioning credit market in Brazil.** The low level of savings, which have consistently been below 20 percent, combined with fiscal financing needs, have deprived the financial sector of resources to allocate for productive use through the private credit market. A past history of high inflation, along with elevated and volatile interest rates, have made private financial intermediation mostly short term in nature, constraining financing for longer-term capital investment, and costly, with very high loan-to-deposit spreads at about 30 percent, making Brazil an international outlier. The level of financial intermediation in Brazil remains below international peers – at 60 percent of GDP in 2017, compared to a median of 72 percent for similar economies, and 115 percent for upper middle-income countries.
- 2. An analysis of banking sector intermediation efficiency carried out by the World Bank in 2018 also indicates that net interest margins of Brazilian banks<sup>1</sup> are higher than in many peer countries.** The weighted average of net interest margins in Brazil was 5.36 percent over the period 2005-14, the second highest of its peer

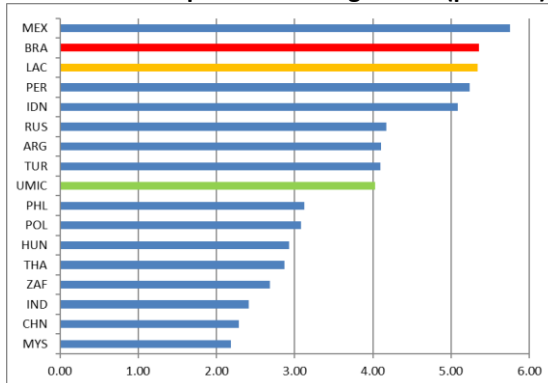


<sup>1</sup> Defined as net interest income divided by earning assets or total assets



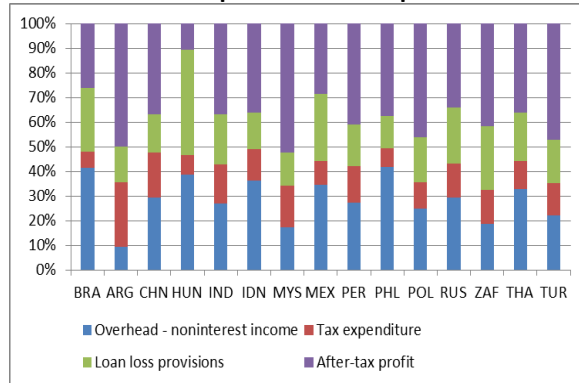
group, surpassed only by Mexico with margins of 5.75 percent. Data from a sample of 179 countries, averaged over the period of 2005-15 finds a negative association of net interest margins with respect to private credit to GDP. Data indicates that countries with lower net interest margins experience higher levels of financial development and higher levels of savings intermediated to the country's private sector. The analysis indicates that overhead costs<sup>2</sup> and loan loss provisioning are the most important components of net interest margins in Brazil. Although after tax profitability does not feature prominently in the decomposition of NIMs, an analysis comparing the returns of the banking industry in Brazil with other industries indicates that Brazilian banks' profitability was 4.4 percentage points higher than in other industries, a significant gap compared to other emerging markets.

**International comparison -Average NIMs (percent)**



Source: *Bankscope*; World Bank analysis

**International comparison - Decomposition of NIMs**



3. **High spreads, high bank profits, high net interest margins and a concentrated financial sector raise the questions whether competition is adequate to support efficient outcomes.** These indicators by themselves do not provide the answer. Competition happens in market segments, and there may be wide variation in the effectiveness of competition across different credit market segments. By international comparison, at the bank level Brazil's banking sector is concentrated, and mergers (Bradesco-HSBC and ItauUnibanco-Citibank) and the departure of foreign banks have contributed to an increasingly concentrated banking sector. However, cross country evidence does not show a link between bank concentration and competitive outcomes in banking<sup>3</sup>. In Brazil, the elasticity of output prices with respect to input prices (the H-Statistic) at 74 percent is relatively high in Brazil suggesting competition works well. Similarly, profit elasticity with respect to costs (the Boone indicator) at -8 percent is quite high (in absolute terms – negative is good) again suggesting competitive outcomes at the bank level<sup>4</sup>. Options for strengthening competition should therefore be sought at the product level. Options for strengthening competitive outcomes for a given market structure include information sharing among lenders, transparency on product facilitating good consumer choices, unbundling product, structuring payment systems for a level playing field among lenders, and the facilitation of

<sup>2</sup> Operating costs, which include wage costs and other operating expenses, such as branches and equipment, account for 4.3 percent of total assets in Brazil, compared to a median of 2.9 percent in peer economies. Loan loss provisions, which reflect differences in credit quality as well as in provisioning regulations, are also particularly important for Brazil, representing a quarter of the net interest income.

<sup>3</sup> See for example Claessens and Laeven (2004) or OECD (2010).

<sup>4</sup> The H-Statistics and Boone indicators represent averages in the period 2012-2015



switching to avoid customers being locked in to one institution. The next section discusses the last option in Brazil.

- 4. As an example, the credit card segment exhibits high interest rates.** The Brazilian card market is the 2nd largest in the world, and is characterized by its vertical integration. The largest five banks dominate card issuance, and they own the main merchant acquirers. Despite efforts by the BCB and the Competition Authority to open up the market to new acquirers in 2010, it remains very concentrated, with the 2 main acquirers representing 80% of the market. The cost of using a card has been reduced with the competition in acquiring, but interchange fees have increased, which threatens the sustainability of new acquirers. Interchange fees and scheme fees are substantially higher in Brazil than in comparable markets. Some anti-competitive practices have also been reported, such as cross subsidization through rebates and bundling of products and services. The low level of interoperability among networks ATMs also generates inefficiencies and high operational costs. In addition, the level of concentration of branches, with 90 percent of branches owned by the top five banks, can create barriers to entry, based on distribution channels. Whereas these factors suggest limited competition, both theory and international evidence are ambiguous in this regard. Additional analysis is needed to offer more definite conclusions about the efficiency of competition.
- 5. The BCB is pursuing reforms to foster competitive outcomes in banking including by facilitating switching.** Regulation forbids incumbents from charging consumers fees due to the early termination of credit agreements. Moreover, the law requires that in any switching transaction, the new interest rates and other additional costs must be beneficial for the customer. Credit portability – the transfer of loans, financings and commercial leases from one financial institution to another – is also regulated.<sup>5</sup> Yet there is little switching in most bank products. Notwithstanding the clear regulatory framework, a survey of 15 banks conducted in collaboration between BCB and the World Bank suggests that incumbent banks may often delay the switching process by introducing unnecessary administrative burdens on clients, such as requiring excessive documentation before the transfer.<sup>6</sup> In addition, comparing complex financial products across banks requires substantial levels of financial literacy.

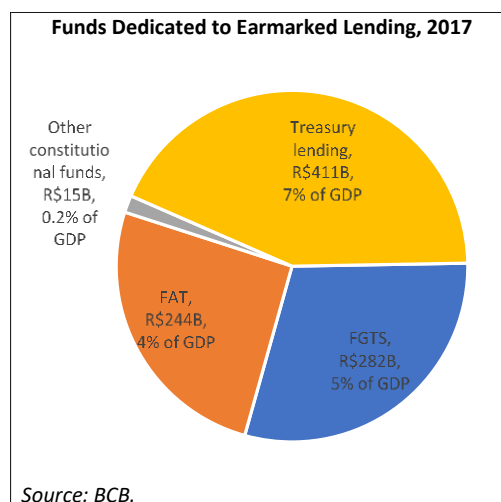
In order to mitigate the lack of a well-functioning private market, the Government has introduced significant interventions, but they have presented high fiscal costs, challenges for monetary policy transmission, and contributed to increased spreads in the free market.

<sup>5</sup> Resolution 4292, December 20, 2013.

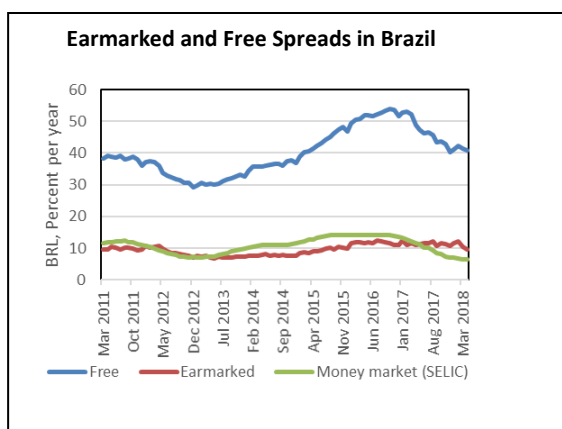
<sup>6</sup> The most frequent complaint reported to the BCB regarding switching relates to delays or non-assignment of credit portability by the original creditor. A common complaint is the poor content of information in the website of financial institutions regarding the administrative procedures for credit switching. Some customers face difficulties to get information as required by the regulation. Requests such as the outstanding balance of loans or unusual bureaucratic requirements demanded by some financial institutions to provide information to the proposing institutions are commonplace among the complaints, including interruptions or denials of the switching process without any explanation to the customer.



6. **Brazil has introduced significant interventions to fill the gap in the market for medium and long-term finance, and generally at regulated interest rates.** While private banks marginally participate in the ear-marked credit system, most of it is intermediated through the public banks. Directed credit accounts for about half of total credit to the economy. Subsidized ear-marked credit expanded rapidly after the global financial crisis. It is mainly targeted to infrastructure and development projects, rural activities and housing. Total credit is roughly equally divided between firms and households, and equally divided between earmarked and non-earmarked credit. Earmarked credit market interventions are funded with special funds constitutionally established<sup>7</sup>, federal government lending mostly through BNDES for long term finance for enterprises, and tax exempt financial instruments (such as saving accounts and real estate and agriculture letters of credit that have a waived 15 percent tax on interest income and allow banks to attract the funds at more favorable rates to on-lend to these priority sectors), and demand deposits.
7. **Regulated interest rates have been a key feature of government interventions in credit markets.** Rates have typically been set well below market rates, and often below the government's own borrowing costs to shelter targeted sectors from the high cost of finance. Financing for enterprises has been priced with a regulated rate, the TJLP (*Taxa de Juros de Longo Prazo*); the housing finance market has been based on another regulated rate, the TR (*Taxa Referencial*); and the agricultural credit market has been subsidized with specific rates set for different segments of the market.
8. **There are linkages between the volume of earmarked-credit provision and spreads in free market segments.** The earmarked lending requirements associated with demand deposits, along with large reserve requirements (despite BCB's recent initiative to lower reserve requirements) makes it expensive to finance free market credit through deposits. Given the high share of directed lending in the economy, banks may find it optimal to enter in markets with subsidized spreads (such as mortgages and infrastructure) to gain



<sup>7</sup> Workers Support Fund (FAT) is a constitutionally established Workers' Support Fund, funded with taxes on gross revenues of companies, payroll of nonprofits, and on imports of goods and services. By constitution, 40% of FAT resources have to be allocated to economic development programs implemented by BNDES (FAT provides 27% of BNDES funding). The FGTS is a mandatory severance indemnity fund for employees. It collects 8% of the employee's salary to individual accounts at Caixa Economica Federal. Regional development constitutional funds are established to promote development in specific regions, including the Northeast Fund, the North Fund, and the Midwest Fund.



customers, and then cross sell free-market products. Cross-subsidies from earmarked to non-earmarked loans can contribute to the high level of spreads in the free market.

**9. The public interventions have brought large costs to the federal government and to publicly managed funds, and have suppressed the effectiveness of monetary policy.** The fiscal cost of credit market interventions peaked at an estimated 2.1 percent of GDP in 2015, but declined to 1.8 percent of GDP in 2016 and has since declined further as market rates have converged

towards regulated rates. Regulated interest rates that do not respond to monetary policy have hindered monetary transmission and led to elevated costs in the free market.<sup>8</sup>

- 10. A recent reform to earmarked credit, the introduction of the TLP as a new interest rate for BNDES, aims to mitigate several of these effects.** By converging to a market-based interest rate, the reform separates the directed lending from implicit embedded subsidies. This will allow BNDES to fill gaps in the market for long term finance without imposing a cost to the Government. It also mitigates the impact on monetary transmission, and it can help support development of market-based long-term lending<sup>9</sup>.

**Financial infrastructure gaps in the credit reporting, and insolvency and collateral regimes have also presented challenges for an effective functioning of the credit markets.**

- 11. Efficient credit allocation has also been undermined by an underdeveloped credit reporting system, which has focused on sharing mostly negative information of clients' nonpayment.** In 2016, credit bureaus had negative data of nonpayment covering 58.8 million individuals, and positive credit information showing a good payment history on only 5.5 million individuals due to legal constraints. As key information has been shared only under restricted-information sharing scenarios, this has created higher cost for creditors wishing to enter the market, thus raising the cost of credit and restricting the number of consumers receiving credit. Research indicates that comprehensive credit reporting systems are associated with enhanced access to finance and improved terms of financing (reduced interest rates and lengthened maturities)<sup>10</sup>. Mechanisms that allow creditors to share information about the creditworthiness of borrowers can reduce information asymmetries, thus leading to lower costs and risks to financial institutions, and enabling more efficient lending techniques. They can also lead to increased competition by reducing lenders' monopoly on credit information (OECD 2012). Evidence suggests that, in countries with both positive and negative information

<sup>8</sup> Estimates show that if earmarked loans responded to changes in the SELIC in the same way as non-earmarked loans, an increase by 0.84 percent would have the same effect as the current effect of a 1 percent SELIC increase. As a consequence, changes in the policy rate (SELIC) are larger in order to achieve monetary policy objectives.

<sup>9</sup> See Byskov and Clavijo (2017).

<sup>10</sup> *The Impact of Credit Information Sharing Reforms on Firm Financing*, Development Research Group WBG, August 2014; Jappelli and Pagano, 2002; Detragiache, Gupta, and Tressel, 2005; Djankov, McLiesh, and Shleifer, 2007; Galindo and Miller, 2001



sharing mechanisms (e.g. through credit bureaus), as compared to mechanisms covering only negative data, credit availability is higher and default rates are lower.<sup>11</sup>

- 12. A reform measure expected to increase competition in the credit market in Brazil is the change to the rules governing the Cadastro Positivo, currently pending final approval in Congress.** The reform will require the mandatory contribution of negative and positive credit events, on an opt-out basis. It will enable financial institutions to access the data on borrowers' credit scores without the need for explicit customer consent, thereby significantly broadening the scope of the credit bureaus, which currently cover merely 5 percent of all bank customers. The proposed reforms are an important step forward, taking Brazil closer to international good practice. The reform could make a relevant contribution to reducing the cost of credit by improving financial institutions' and other non-financial companies' ability to determine the creditworthiness of clients.
- 13. Inadequacies in the existing legal and registry framework for secured lending also contribute to inefficiencies in credit markets.** Effective secured transactions systems can enhance access to credit, by providing a framework to enable moveable assets to be effectively used as collateral. The introduction of a centralized and modern collateral registry for all secured transactions (and their functional equivalents) has been shown to improve firms' access to bank finance as well as reduction in interest rates and extensions in loan maturities.<sup>12</sup> Love et al. (2016) indicate that such reforms have contributed to increased access to loans by 7 percentage points. The introduction of these registries has also led to a reduction of 3 percentage points in the costs of loans (against an average interest rate of 13%) and an extension of 6 months on the loan maturity (for loans with an average maturity of 31 months). In industrial countries, borrowers with collateral get nine times the level of credit given their cash flow compared to borrowers without collateral. They also benefit from longer repayment periods (11 times longer) and significantly lower interest rates (50 percent lower)<sup>13</sup>.
- 14. The legal and registry framework for secured lending in Brazil through movable collateral (such as equipment, inventory, livestock, accounts receivables, etc.) is fragmented, creating barriers for financing, especially for small and medium enterprises (SMEs).** Movable assets typically account for the majority of SMEs' assets. The current system for taking security interests in movables lacks harmonization with competing laws, and is characterized by inflexible legal devices from the Civil Code, which limit the use of many tangible and most intangible assets as collateral. Registration is also expensive and paper-based, and can take place at local registry locations, which are not interconnected. There is no modern, centralized, security transactions registry, providing only partial visibility into liens created over movables. Collateral enforcement remains problematic with lengthy court proceedings limiting recovery in case of default. Out of court enforcement is limited.
- 15. The recently adopted reform of “duplicata eletrônica,” is a first step in improving the efficiency of registration and trading of trade acceptances (duplicatas).** The “duplicata eletrônica” reform will eliminate paper-based documents, thereby reducing forgery and fraud and improving the legal and transactional certainty through the usage and registration of electronic documents. Hence, it is expected to lead to increased efficiency and transparency, reducing transaction costs. In addition, such an initiative opens the

<sup>11</sup> Barron and Staten, 2003; Powell et. al, 2004; IFC, 2006)

<sup>12</sup> Campello and Larraín (2016).

<sup>13</sup> IFC report, *Secured Transactions Systems and Collateral Registries*, 2010.





door to discounting, securitization, and open trading of duplicatas through electronic platforms, thus fostering competition.

**16. The Brazilian authorities have also embarked on an ambitious process of insolvency law reform.** There is significant room for improvement in the Brazilian insolvency law and practice. Improving the efficacy of the insolvency framework can address judicial inefficiencies, especially those associated with enforcement of collateral, and contribute to reduced cost of financing. The Global Competitiveness index ranks Brazil 106th on legal rights and 110th out of 137 countries on the efficiency of the legal framework in settling disputes (World Economic Forum, 2017). In addition, creditor rights are proxied by the Doing Business (DB) strength of legal rights index, which tracks changes related to secured transactions and insolvency every year. The index ranges from 0 to 12, with higher scores indicating that collateral and bankruptcy laws are better designed to expand access to credit. By international comparison, Brazil's creditor rights compare unfavorably. The legal rights index in Brazil in 2017 is 2 compared to an average of 5.3 for the Latin America region. The enforceability of creditor rights is important in determining the premium that banks demand on their intermediation activity. Contract enforcement is proxied by the recovery rate, which is recorded as cents on the dollar recovered by secured creditors through judicial reorganization, liquidation or debt enforcement (foreclosure or receivership) proceedings. Higher recovery rates are expected to reduce bank margins. In this dimension, Brazil again scores considerably below its peers, with a recovery rate of 13 cents on the dollar, compared to a regional average of 31, and an OECD average of 71. This largely reflects an inefficient judicial system, with reorganization and liquidation procedures taking approximately 4 years in total, compared to an average of 2.9 years in Latin American and 1.7 years in the OECD.

**17. Effective insolvency regimes are associated with increased availability and lower costs of credit.** An effective insolvency regime enhances predictability and thus lender confidence in loan recovery upon default, which encourages more lending and leads to financial inclusion for more businesses. A 2012 study on Brazil's 2005 bankruptcy reform<sup>14</sup> found a statistically significant increase in the Brazilian private credit market after the reform. In addition, effective insolvency regimes can contribute to lowering interest rates. A 2012 study on Italy analyzed the impact of the 2005 bankruptcy reform regarding the liquidation procedures.<sup>15</sup> The study found that the reform led to a decrease in interest rates. In addition, the bankruptcy law enhanced the coordination of bank creditors, which enabled a reduction in interest rates to firms dealing with several bank creditors.

## POLICY DIRECTIONS

**In order to improve the functioning of the credit markets in Brazil, policy directions should focus on three main areas: (i) evaluating and promoting competitive conduct in the financial sector; (ii) reviewing and optimizing public interventions; and (iii) addressing gaps in the enabling financial infrastructure.**

### (1) Evaluating and promoting competition in the financial sector

**18. An in-depth analysis of the competitive conduct in the financial industry, as well as the institutional framework for the conduct of competition policy, should be undertaken to ensure that market conduct supports efficient financial intermediation.** The BCB and Cade, the competition authority, recently signed a

<sup>14</sup> Bruno Funchal, *The effect of the 2005 bankruptcy reform in Brazil*, 2008

<sup>15</sup> Rodano, Serrano-Velarde, Tarantino, 2012.





memorandum of understanding to collaborate on facilitating efficient functioning of the financial market. A legal initiative is underway to clarify and formalize the roles of the two bodies in competition matters. Improving competitive conduct in the financial sector may contribute to higher intermediation efficiency. An in-depth assessment of competition would be valuable for identifying shortcomings that impact the costs of financial intermediation in Brazil.

**19. The objectives of interoperability, improved competition in the payments market, and promotion of innovation should be pursued.** Interoperability amongst networks of ATMs, and bank accounts and e-money wallets is not reflected in the market. There is significant room for improving transparency, price differentiation, unbundling of services and cost reduction (interchange fees), that would improve competition in the payments market. The BCB established in May 2018 a working group with market participants to work on the instant payments eco system, but a specific FinTech framework aimed at promoting innovation could also be considered. The fintech industry (over 200 in Brazil) can leverage technology to increase competition in the market. New distribution channels, driven by mobile technology, should break down barriers to entry created by branches, as well as contributing to lowering banks' high operating costs. Faced with the competition, the banking sector is already responding by investing in similar products and digital platforms. The BCB should also promote open banking, allowing authorized third parties to develop services and tools for customers, in order to facilitate the development of new entrants and new business models. The BCB adopted in 2009 new procedures that contributed to the expansion of the banking correspondents model, but additional improvements could be brought in terms of information on new correspondents, termination of correspondents, and correspondents' exclusivity, as competition would increase if correspondents can serve clients of different providers. Standardization of disclosure forms for key financial products, and comparators of basic fees and charges that are easy to use by consumers should also be pursued. Recent BCB regulations, such as facilitating the portability of individual accounts amongst banks, are welcomed developments.

**20. The role of alternative providers, such as credit cooperatives, should also be promoted to expand financing options and foster competition.** Credit cooperatives can play a role in complementing bank credit. Credit cooperatives remain small, but are gaining market share. As of 2016, credit cooperatives accounted for 7.6% of total assets in the financial system, placing them in 6th place in terms of size in the financial system. The segment is consolidated in two main cooperatives, Sicoob and Sicredi, accounting for about 80 percent of assets of cooperatives. They seem to be willing to take more risk than the banking sector.<sup>16</sup> They played an important counter-cyclical role during the latest recession. While share of bank credit to SMEs declined from 43% to 36% during 2014 – 2017, credit from cooperatives to SMEs increased in both absolute and relative terms during the same period. Cooperatives' market share increased from 5% to 13% for micro firms, and from 4% to 8% for small and medium firms during 2013 – 2017.

## (2) Reviewing and Optimizing Public Interventions

**21. Objectives for earmarked credit interventions must be reviewed.** This requires a clear and coordinated approach to monitoring and evaluation. The interventions are varied and implemented by different means, and the costs are borne by several different actors. A range of actors set objectives and policies including

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<sup>16</sup> Central Bank data indicate that the share of total credit by cooperatives to clients with risk rating of B-D was about 50% in December 2017, whereas a similar share by commercial banks was 27%.



different ministries, the central bank, BNDES and the other public banks. Thus, a coordinated effort amongst key stakeholders is needed to monitor, evaluate, revise objectives, and reform the earmarked credit system.

- 22. The housing and rural finance programs must be clearly evaluated for their impact and distribution of subsidies.** They should be evaluated based on incidence, i.e. the distribution of the subsidies and whether they reach their intended beneficiaries. For example, in the rural sector, reform directions should focus on: a reduction in the earmarked lending requirements, making subsidies explicit, transparent, and focused on the segments that need it the most (i.e. small farmers), or to finance investments for sustainable agriculture; equaling the level playing field between public and private banks (as the market is dominated by public banks); and strengthening the role of cooperatives. Alternatives to credit subsidies include well-targeted support for the management of risks to crop yields and output prices, which would also help reduce credit risk and thus facilitate access to credit. For housing subsidies, a preferred solution is to offer up-front subsidies to targeted beneficiaries to help them with the down payment.
- 23. Disconnecting subsidies from credit decisions can improve transparency and outcomes.** The TLP reform achieves the separation between subsidies and allocation of credit (by tying the cost of finance in the earmarked system to the cost of funds for the government). Subsidies, when needed, can then be transparently targeted. Subsidies, when offered independently, can also better be targeted based on externalities or social objectives regardless of whether the beneficiaries have a need for credit.
- 24. In addition, the evaluation and streamlining of public initiatives of credit guarantee programs should be pursued.** Credit guarantee schemes compensate for imperfections in the collateral market and can improve financing conditions (such as lower interest rates, greater amounts, longer maturities). In Brazil, public partial guarantee schemes are underutilized. There are three major public partial credit guarantee funds: FAMPE (managed by SEBRAE), FGI (managed by BNDES), and FGO (managed by Banco do Brasil).<sup>17</sup> The schemes have various eligibility requirements, and it is not clear the extent to which the program targets an appropriate set of firms. There is also significant overlap across the different programs and operational differences (pricing schemes, claim payout processes, collateral requirements, etc.), calling for simplification and streamlining, in order to incentivize lenders to use the schemes.

### (3) Addressing Gaps in Financial Infrastructure

- 25. The efficiency of free market financial intermediation needs to improve, including through improvements in the financial infrastructure.** The contracting environment can be enhanced through credit information sharing reform, secured transaction and insolvency reform reforms, which are currently contemplated in Congress. Addressing gaps in financial infrastructure is expected to contribute to less public interventions, and lead to improvements in access to credit and efficiencies of credit markets in the longer term.
- 26. With the goal of reducing the costs associated with information asymmetries through effective positive credit information sharing, the Brazilian authorities are amending the Cadastro Positivo law and the bank secrecy law.** The reform would contribute to increased competition in the credit market, enabling lenders to access relevant credit information in a cost-efficient manner, and reducing information asymmetries for borrowers. Following the adoption of the legal changes, efforts should focus on: (i) an adequate regulatory

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<sup>17</sup> In addition, SEBRAE has supported the development of “sociedades garantidoras de credito” (SGCs), which provide guarantees and financial advisory services, but they do not have national reach and are unregulated, which affects their appeal to lenders.



framework, including on the licensing process, impact of new entrants in the credit information market (not only credit bureaus but also fintech companies), ensuring competition in the credit market and potential impact of concentration; and (ii) an effective oversight framework for credit reporting to clearly define the role that each authority will play in the oversight of credit reporting systems.

- 27. The introduction of the “duplicata eletrônica” is a significant measure to improve the efficiency of the registration and trading of trade acceptances.** Reform directions should: (i) address legal deficiencies in secured transactions; (ii) ensure interoperability of movable assets registries; and (iii) establish speedy and effective enforcement remedies in case of default, including via the strengthening of extrajudicial methods. The current initiative focuses on duplicatas, but the legal framework enables the BCB to further define which financial assets can be registered and traded electronically. Thus, the infrastructure that will be put in the place for duplicatas should be replicated for other types of movable assets.
- 28. Reforms were recently submitted to Congress to improve Brazil’s insolvency framework.** The draft law contemplates numerous reforms to the Insolvency Law of 2005. The proposed reforms are largely consistent with international good practices and, if properly applied, they could improve the effectiveness of the Brazilian insolvency regime. The reform aims to improve creditor rights and roles in insolvency proceedings, strengthen the use of extrajudicial recovery, improve realization of the insolvency estate in bankruptcy, making it faster so that the debtor’s productive assets could be reused with minimal depreciation and loss of value, enable a more simple and agile judicial recovery for micro and small enterprises, and upon termination of bankruptcy proceedings of an individual entrepreneur allow for a quicker “fresh start” since the unpaid obligations will be extinguished after two years.



### **Directed Credit for Housing Finance**

**The housing finance market in Brazil at 8.6 percent of GDP is relatively large and predominantly provided under directed lending arrangements.** Residential mortgage loan pricing is based on a regulated interest rate index, *Taxa Referencial* (TR), which has stayed low and stable. 74 percent of residential mortgage loan volume is provided by Caixa Econômica Federal (CEF) making it a highly concentrated market.

**The system is funded through tax-exempt instruments. Savings deposits (Poupança) is the main funding source.** In addition, the system uses short term real estate credit notes (Letra de Crédito Imobiliário, LCI), and Certificates of Real Estate Receivables (Certificados de Recebíveis Imobiliários – CRI), which is a debenture secured by real estate collateral. The income from these instruments are tax free for the investors. Finally, some social housing programs are funded by the FGTS.

**The sight deposit funding of mortgage loans creates interest rate risk in the system.** Poupanças are immediately redeemable deposits, so there is a large maturity mismatch between the loans and the funding. Interest rate risk management is based on both the deposits and the loans, both being linked to the TR. However, should interest rates rise to the point where returns on Poupança become unattractive, banks would then be faced with a choice between increasing remuneration on the deposits and attracting funds through more expensive market interest rate based instruments such as the LCI, thus incurring losses. This happened in 2015, when the system experienced an outflow of R\$50B or about 10 percent of the deposit base. Although many deposits are from small savers (131 million accounts with less than R\$30,000 + ~US\$9,400), 87 percent of the volume of these deposits are from larger accounts.

**A mortgage bond solution is being developed to allow more sustainable development of the housing finance market.** A law was introduced in 2015 to enable banks to issue mortgage-covered bonds, and the BCB has progressed with regulation of the market, but there has not yet been any issuance.

**In July 2018, the Government introduced a significant reform that ends the requirement to channel poupanças into the Housing Financial System (SFH) and promotes more flexibility for banks to set mortgage loans interest rates.** Banks still have to direct 65% of poupanças into mortgages. However, they no longer have to channel 80% of the funds to SFH transactions, but instead into any residential mortgages. In addition, in mortgage transactions in which FGTS funds are not involved, mortgage rates will no longer be restricted to the Reference Rate (TR). Price indices like the IGP-M and the IPCA can also be used.



### Directed Credit for Agriculture

**Agriculture, including agribusiness, comprised nearly a quarter of Brazil's GDP, more than a third of its exports, and nearly a fifth of formal employment in 2016.** With 8 percent of farmers producing 85 percent of output, the value of production is very concentrated.

**Macro financial conditions have not been conducive to a well-functioning credit market with volatile growth, persistent inflation, and fluctuating market interest rates.** Credit provided through banks and formal financial institutions only serve a small portion of the sector's financing needs. Other financing needs remain unmet, or are provided informally or by trade finance, which is estimated to be larger than the amount of rural credit provided by formal financial institutions. Data from the Central Bank of Brazil shows that 72% of farmers finance agricultural activities out of the national rural credit system. To address prevailing credit market failures, an elaborate system of subsidized directed credit has been established.<sup>1</sup> Although many countries have higher levels of agriculture support, Brazil stands out in the relatively higher dependency on credit as a channel for providing subsidies to the sector, leading to distortionary incentives for farm-level decision making. Program interest rates range from 0.5 percent to 12 percent per year depending on the purpose and beneficiary. The interventions come with fiscal costs and indirectly affect financial intermediation by crowding out the private sector. An assessment of the main rural finance programs is needed, considering the main demand- and supply-side challenges, in order to improve the effectiveness and efficiency of public programs.

**The total value of rural credit intermediated in 2016 was R\$157 billion (US\$ 48 billion), accounting for 2.5 percent of Brazil's GDP and 1.7 percent of total credit.** In addition to demand deposit collection requiring earmarked lending at regulated interest rates to rural sectors, tax exempt savings instruments, on-budget fiscal subsidies, and access to low-cost government loans are also available. As such, funding sources are numerous and diverse, with the credit program having over 20 funding sources offering credit under their specific terms. In 2016, 63 percent of the total rural credit came from compulsory resources (R\$ 43.6 billion or US\$ 13.2 billion) and rural savings (R\$ 53.8 billion or US\$ 16.3 billion). The public sector provided nearly R\$ 27.7 billion (US\$ 8.4 billion), through the BNDES and constitutional funds, and the Agribusiness Letter of Credit accounted for the additional R\$ 17.7 billion (US\$ 5.4 billion). Most agriculture credit in 2016 was intermediated by Banco do Brasil (49 percent), followed by private commercial banks (30 percent), credit cooperatives (12 percent), and Brazilian Development Bank (BNDES) (9 percent).

**Historically, rural credit has primarily financed working capital (over 80 percent).** In 2016, most of rural credit went directly to farmers, with the rest divided among firms (16 percent) and production cooperatives (18 percent). In terms of agriculture products, leading commodities receiving finance are soy, livestock, maize and sugar cane, representing half of the lending to the sector. Rural credit is channeled mainly to the South and Southeast regions in terms of volume of resources, followed by the Central-West. Some challenges preventing greater access to agricultural finance include land tenure, environmental, and other documentation requirements, insufficient knowledge of existing financial tools, and lack of access to technical assistance for farmers.

**Environmental sustainability-related credit represents a very small share of the total rural credit available.** Brazil's ambitious climate change targets and restricting environmental regulation bring cost implications to the agricultural sector. The expansion of the agricultural sector in Brazil was achieved by the practice of clear-cutting forested areas, which has been restricted by the Brazilian Forest Code. Environmental regularization does not offer attractive returns to investment, and commercial finance is therefore not available to support environmental sustainability.

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<sup>1</sup> The Brazilian government makes below-market interest rates possible through a subsidy, called "equalization", or matching, of interest rates. As an incentive for financial institutions to lend to the rural sector, the Brazilian Treasury pays for the difference between the interest rates of SNCR credit lines and the market interest rates, as well as for



administrative and tax costs incurred by banks. The main programs are PRONAF (National Program to Strengthen Family Farming), which focuses on family and small farmers, and PRONAMP (National Program for Support to Medium-Sized Rural Producers), for medium size producers. In addition, Crop Insurance Program (PSR) provides income stability to rural producers by reducing the costs of agricultural insurance. Agricultural and Livestock Activity Guarantee Program (PROAGRO) reimburses its beneficiary for the loss of revenue from natural disasters.



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