

Fintechs: The Impact Of Digital Banks On Credit Market Competition In Brazil

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SUMMARY

The number of people belonging to the National Financial System in Brazil has increased in recent years, but there is still a significant percentage of credit applications denied to low-income people. This highlights the importance of granting credit in the financial system and the diversification needed to cater for different audiences, which results in effects seen in the economy as a whole. The credit market in Brazil has historically been concentrated in the five largest banks, but new financial institutions are emerging with the potential to make a positive contribution. Fintechs and digital banks are making the credit market more efficient by offering products and services with more affordable prices and quality than traditional banks. With this in mind, the general objective is to analyze the impact on the concentration of credit granted to individuals by traditional banks in the face of the emergence and growth of fintechs. In addition, this research seeks to shed light on the competitiveness of the market, propose reflections on the concentration of credit in Brazil and contribute to the expansion of studies on credit fintechs. The results suggest that since BCB Resolution 4656, which allowed fintechs to enter the credit granting market, there has also been an increase in the granting of credit to individuals, especially in the credit card segment. In addition, fintechs have contributed to the economic development of families, boosting the business of small and medium-sized companies and facilitating the operations of large corporations.

Keywords: *Fintechs. Traditional banks. Credit portfolio.*

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I. INTRODUCTION

One of the pillars of a society's economic development lies in the ability of a country's financial system to grant credit to its users. According to Liang and Reichet (2007), a developed financial system can even play a leading role in economic growth. In this sense, it is necessary to have a diversified lending matrix capable of serving different audiences.

According to the Central Bank of Brazil (BCB), the rate of adults integrated into the National Financial System (SFN) in Brazil jumped from 86.2% in 2015 to 94.7% in 2020. Factors such as the spread of payment institutions (PI) and the digitization process of traditional banks, which was boosted by the closure of bank branches during the pandemic, have contributed to the increase in the number of individuals in the country's banking system. Despite this increase, data released by Serasa (2021) shows that 44% of credit applications made by low-income people are still denied.

In Brazil, the credit market has historically been concentrated by five large banks: Itaú, Santander, Bradesco, Banco do Brasil and Caixa Econômica Federal. However, according to the BCB (Special Study No. 89/2020), new financial institutions are being added to the SFN with the potential to make a positive contribution to the economy.

The importance of the banking market is reflected in the economic results of its main players. The profits of the banks, especially the five largest, have been growing in recent years. According to the financial statements published in their accounting reports, in 2015 the net profit of these five largest banks totaled R\$73 billion, while in 2021 they totaled R\$91.6 billion, which shows the significant share they represent.

In order to expand the reach of credit concessions, it is important to look for new alternatives that meet this requirement, such as the construction and propagation of secure technology that is accessible to users. According to Melo *et al.* (2021), the technological transformation experienced in various economic and social sectors has been reflected in the financial system through the adoption of digital technologies capable of making new financial products and services available to the market, such as the emergence of *fintechs*, decentralized finance and digital currencies.

Credit *fintechs* and digital banks make the credit market more efficient, since these institutions work with more advanced technological resources and lighter structures, and can offer products and services with pricing and quality that are more accessible to consumers. In addition, given the above, it is hoped that credit *fintechs* and digital banks will be able to increase competitiveness by offering more products and services through their technological and more specialized resources.

According to Navaretti *et al.* (2017), *fintechs* intensify competition in the financial sector by offering the same services as conventional financial institutions, but in a more efficient way, further expanding the number of users of these services. Digital banks such as Nubank, PicPay, Inter, Neon and C6 already have more than 100 million active accounts and distribute different types of credit to their users through their platforms.

Despite the exponential growth of these new companies in the payment institution segment, Navaretti *et al.* (2017) point out that these new institutions will not replace traditional banks in most of their key functions, for reasons of preference, such as issues involving relationships, trust and security.

Given this scenario, the following research question arises: What is the impact of *fintech* on the Brazilian credit market and their prospects compared to traditional banks? The general objective of this research is to analyze the impact of the emergence and growth of *fintechs* on the concentration of credit granted to individuals by traditional banks.

As specific objectives, this study seeks to broaden the discussion on the representativeness of *fintechs* in the supply of credit and to analyze the portfolios of traditional banks and other financial institutions in terms of granting credit.

The study in question is relevant because it addresses the expansion of consumer credit, a fundamental factor in boosting the economic development of families, as evidenced in the studies by Brandão (2021). In addition, access to credit also plays a crucial role in strengthening the businesses of small and medium-sized enterprises, as highlighted by Abbasi *et al.* (2021). Finally, the availability of adequate credit is essential to ensure the continued operations of large corporations. Therefore, understanding and analyzing the credit scenario and its expansion is extremely important for promoting sustainable economic growth in various spheres, from the family economy to the business sector in general.

In addition, it is important to examine the competitive dynamics of this market, considering that the antitrust authority, which aims to repress the exercise considered abusive of increased market power in Brazil, is increasingly concerned about the levels of concentration and verticalization in the national banking sector, as highlighted by Guimarães (2021).

Finally, this study is relevant as it addresses a recent and growing issue in society, seeking to provide insights into the competitiveness of the market and the aspects mentioned, as well as stimulating reflection on the concentration of credit granted in Brazil. As a contribution, it is hoped that this research will also make it possible to expand studies on credit *fintechs*, since there are few materials on this subject, given its relevance in the economy. Furthermore, considering the regulatory bodies, we hope to make a practical contribution by demonstrating the levels of competitiveness of new entrants compared to traditional banks in the credit market.

II. THEORETICAL BACKGROUND

In Brazil, the Central Bank sets limitations for companies wishing to act as credit grantors in specific segments, each with its own regulations. The theoretical background will cover the fundamental concepts related to understanding credit in the country, as well as the players involved in the credit granting market and the role played by *fintechs*.

Fintechs

According to Vido (2020), the term *fintech* can be conceptualized as a combination of the words *financial* and *technology*. These companies operate in the financial sector through technological solutions. Although this is a literal translation of the nomenclature, the concepts covered by this term are widely debated by various authors.

Kim, Park and Choi (2016) point out that *fintechs* are companies in the financial services sector that use information technology to improve the efficiency of the financial system.

According to Barberis (2014), the term *fintech* refers to a sector that is growing, developing financial services that include third-party payments, loans, insurance products, among others. In addition, Arner *et al.* (2015) point out that *fintechs* are companies that offer financial services or solutions driven by technology,

representing a new paradigm. In this same context, Walker (2014) points out that the financial system will continue to be fundamental, however, traditional banks will not be as necessary, since many services can be offered by these new companies.

In addition, it is possible to highlight some benefits resulting from the growth of *fintechs* in Brazil. As Vido (2020) points out, digital banks, which are included in the category of *fintechs*, are experiencing significant growth. They emerged alongside the popularization of the internet and digital media in the country.

The next topic discusses the various credit agents, which play a fundamental role in the financial system, being responsible for providing financial resources to individuals and companies. According to Araújo and Cintra (2011), the importance of banks in the economic context cannot be denied. It is these institutions that support the industrial, real estate and rural sectors in different phases of credit cycles, as well as promoting banking inclusion for the less privileged social classes.

Credit Lenders and the Spotlight on *Fintechs*

To make it easier to understand the various loan providers, Table 1 has been drawn up, showing the characteristics of each of the providers and the main activities they carry out.

Table 1 - Credit Granting Agents

Lending Agent	Characterization	Activity
Commercial Banks	Financial institutions, public or private, with the aim of providing resources to finance, from short to long term, service providers, individuals and third parties. It is set up as a company and its corporate name must contain the word "bank".	Receipt of demand and term deposits and transfers.
Development Bank	Financial institutions under state control. Their aim is to guarantee timely resources to finance programs and projects for medium to long-term economic and social development. They must set up a company with headquarters in the capital of the state under their control, and bear the expression "Development Bank" in their company name, followed by the state where they have their headquarters	Lending activities that include term deposits, external loans, issuing or consolidating mortgage certificates, issuing bonds and economic development bonds.
Federal Savings Bank	A public company linked to the Ministry of Finance. It is an institution similar to commercial banks. It can deal directly with consumer credit, finance durable goods, lend against industrial pledges and title guarantees	It takes deposits, carries out asset operations and provides services on demand. It also prioritizes loans and financing for programs and projects in the areas of social assistance, health, education, work, urban transport and sport.
Multiple Bank	Private or public financial institutions that perform active, passive and auxiliary functions for various financial institutions. It is made up of portfolios, at least two of which are commercial and the other investment.	It operates through commercial, development, real estate credit, leasing, financing and investment portfolios.
Credit Union	Set up by an association of people, a credit union aims to provide financial services exclusively to its members. Members participate in its management and benefit from its products and services.	It provides services such as current accounts, financial investments, credit cards, loans and financing. It is a type of financial institution that does not make a profit.
Micro-entrepreneurCredit Society	It is an entity created to increase access to credit for small entrepreneurs (individuals) and small businesses (companies). This group benefits from simplified treatment of regulatory requirements, which makes their operations simpler in order to stimulate credit to their segments of activity.	It provides credit analysis, loans and financing, guidance and training, monitoring and collection. Its aim is to boost entrepreneurship and contribute to the economic development of micro-entrepreneurs.
Investment Bank	Private financial institutions specializing in temporary equity transactions. They finance productive activities to obtain fixed and working capital. They manage third-party resources. They do not have a current account and their money is raised through term deposits, borrowing external and internal funds and selling shares in the investment funds they manage. They must be incorporated and have the phrase "Investment Bank" in their corporate name	The main lines of business are financing working capital and fixed capital, underwriting or purchasing securities, interbank deposits and sub-loans of external loans.
Credit, Financing and Investment Company	These are private organizations that provide loans and financing for the purchase of goods, services and working capital. This segment can be seen in some department stores and car manufacturers that have their own finance companies	Consumer credit, loans and financing, investment and asset management.
Securitiesbrokeragefirm	Securities brokers (CTVM) operate in the financial, capital and foreign exchange markets, intermediating the trading of securities between investors and borrowers	Intermediation of transactions, execution of orders, market analysis, financial advisory and consultancy services, distribution of securities and custody and administration of

		securities.
SavingsandLoansAssociation	Its function is to support its members in buying their own home, as well as promoting savings. In this segment, clients become members of the institution	Collection of savings deposits, granting of loans, administration of resources, provision of financial services, financial education and participation in government programs.
MortgageCompany	Its purpose is to grant residential or commercial real estate loans, loans guaranteed by mortgages or fiduciary sale of real estate and onlending of funds related to real estate programs, in addition to managing real estate investment funds.	Real estate financing, credit assessment, contract administration, fundraising and customer and partner relations.
DevelopmentAgency	These are public institutions whose purpose is to finance projects included in development programs in their respective states	Financing, support for micro, small and medium-sized enterprises, investment in projects with a social and environmental impact, partnerships and institutional cooperation and stimulating innovation and technology.
PaymentInstitutions	A legal entity that provides financial flow services based on a payment arrangement, without the possibility of granting loans and financing to its clients.	Issuing post-paid payment instruments, such as credit cards.
Direct CreditCompanies	These are financial institutions that operate in the loans and financing market, offering credit directly to consumers and companies. They do not take deposits from the public, but obtain funds from investors and other sources of financing.	Carrying out loan operations, carrying out credit operations, financing, credit analysis for third parties, distributing insurance related to its operation, issuing electronic money and issuing credit cards.
People-to-People Lending Companies	Institutions responsible for intermediating loan and financing operations between people, in which financial resources collected from creditors are directed to debtors, after negotiation on an electronic platform.	Connecting borrowers and investors, assessing credit risk, establishing terms and conditions, managing the loan process.

Source: prepared by the authors (2023)

From the description in Table 1, it can be seen that various agents are authorized to grant credit, such as commercial banks, development banks, multiple banks, credit cooperatives, among others. Each of these agents has specific characteristics and activities, contributing to the supply of credit to different segments of the economy.

According to Faria *et al.* (2019), although the justification for the existence of banks and their competence in carrying out their functions is understandable, there are indications that the fulfillment of the traditional role of banks is declining.

Alongside the decline of traditional banks, according to Ferreira *et al.* (2018), *fintechs*, seen as a potential threat to banks, have emerged with the aim of transforming the financial market. However, this does not imply the end of the banking sector and other financial institutions, but rather high-quality competition that drives various changes and puts the focus on the customer.

Also in this context, the diversity of credit providers in the country is fundamental to promoting competition and meeting the needs of different audiences, such as companies, individual entrepreneurs and individuals. This is evidenced in the study by Gonçalves and Ramidoff (2020), which found that a significant portion of the Brazilian population does not have access to conventional banking services and that small and medium-sized companies are often neglected by large banks, opening up the possibility for technology-based business models, which play an important and relevant role.

According to Troster (2019), his study showed that in the last four years banks have seen a decrease in their financial operations, as indicated by data from the Central Bank. There was a drop from 77.3% to 69.9% in this period. In addition, the rise of digital banks and *fintechs* may also be responsible for this reduction, with technology being one of the main factors contributing to the decentralization of banking activities, previously concentrated in the five largest banks.

The BCB (2018) highlights the benefits brought about by *fintechs*, such as increasing efficiency and competition in the credit market, speeding up transactions, simplifying access to credit, creating new conditions to reduce costs and introducing innovations.

In addition, the presence of a variety of lending agents in Brazil is essential for promoting competitiveness and broadening access to credit in different sectors of the economy. This diversity reflects the need to meet the specific demands of different audiences, from large companies to individual micro-entrepreneurs and individuals.

Corroborating this approach to serving different audiences, the study by Pimenta *et al.* (2019) discussed the credit *fintechs* operating in the city of São Paulo, and observed a positive approach that highlights the absence of collateral requirements, allowing them to serve classes C and D, especially young people in the digital age. This positive approach reflects a democratization of access to credit.

In addition, Pimenta *et al.* (2019) point out that *fintechs* face a significant challenge with regulations in the process of being structured. These regulations generate a lack of trust among Brazilians and restrict the variety of products offered by *fintechs*. Machado *et al.* (2023) pointed out that the regulatory asymmetry between traditional banks and *fintechs* is still significant, emphasizing that greater regulatory requirements are still concentrated on traditional banks. However, it is important to note that this scenario is undergoing significant changes.

III. METHODOLOGY

The study is characterized as descriptive, since the data collected aims to describe the characteristics of populations and establish relationships between variables. According to Gil (2008), descriptive research aims to demonstrate the characteristics of a sample or establish relationships between different variables.

In terms of its approach, the research is qualitative, as it proposes a market behavior based on the data obtained. According to Strauss and Corbin (2008), qualitative research seeks to understand cultural phenomena, life experiences, feelings, emotions and behaviors of individuals.

As for the technical procedures used to collect the data, the research is documental, and the information was obtained from the Central Bank of Brazil's website, on the IFData platform - Selected data from financial institutions. This platform gathers and makes available selected data from financial institutions, providing relevant and up-to-date information on the financial sector, allowing for a more accurate and comprehensive analysis. Through IFData, it is possible to access economic indicators, market statistics, credit information and more.

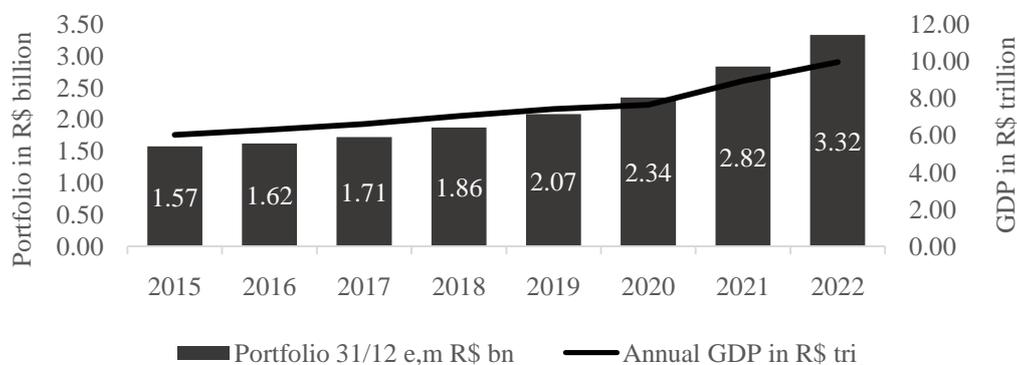
The research sample was made up of the following variables extracted from IFData: loan portfolio for individuals and the evolution of the credit portfolio, both for traditional banks and other financial institutions, as well as listing them by segments, institutions and comparing them with the Gross Domestic Product (GDP). The period of analysis covered the years 2015 to 2022. This selected time interval is justified because it covers both the period before BCB Resolution 4656 of 2018, responsible for the entry of *fintechs* into the Brazilian credit market, and the most recent period with data available for analysis (2022).

Using the statements on the active credit portfolio for individuals, extracted from IFData, the content was verified and the data collected was analyzed. Content analysis, as proposed by Bardin (2011), was used to process the data, divided into three stages (i) pre-analysis; (ii) exploration of the material; and (iii) treatment of the data and interpretation of the results (BARDIN, 2011).

IV. ANALYSIS AND DISCUSSION OF RESULTS

Based on data provided by IFDATA, it can be seen that the credit portfolio for individuals has evolved as follows in relation to the annual Gross Domestic Product (GDP):

Graph 1 - Individual credit portfolio vs. annual GDP



Source: prepared by the authors (2023)

In Graph 1, it is important to note that the portfolio shown takes into account the volume of credit made available to individuals by financial institutions, excluding portfolios acquired as credit assignments with risk

retention by another financial institution, i.e. excluding client portfolios with a high risk of default acquired from other financial institutions.

To analyze the evolution of Brazil's credit portfolio compared to GDP over the last 7 years, you can use the data and calculate the CAGR (*Compound Annual Growth Rate*) for both indicators. The CAGR provides an average measure of annualized growth over this period. By comparing the CAGR of the loan portfolio with the CAGR of GDP, you can see the dynamics and relationship between these two indicators. Over the last 7 years, Brazil's credit portfolio has grown at a CAGR of approximately 15.24%, while GDP has grown at a CAGR of approximately 8.01%. This indicates that the credit portfolio has grown faster than the general economic growth represented by GDP.

In the specific case of the loan portfolio, the CAGR of approximately 15.24% indicates robust growth over the 7 years. This growth can be interpreted as a sign of the expansion of the credit market in Brazil. The credit portfolio represents the amount of loans granted by banks and financial institutions, reflecting the level of lending and financing activity in the economy.

The accelerated growth of the credit portfolio can have various economic implications. On the one hand, it can indicate a greater availability of credit for companies and consumers, stimulating investment, consumption and economic growth. It should also be noted that very rapid growth in the credit portfolio may raise concerns about the sustainability and quality of these loans, as well as the possibility of an increase in indebtedness.

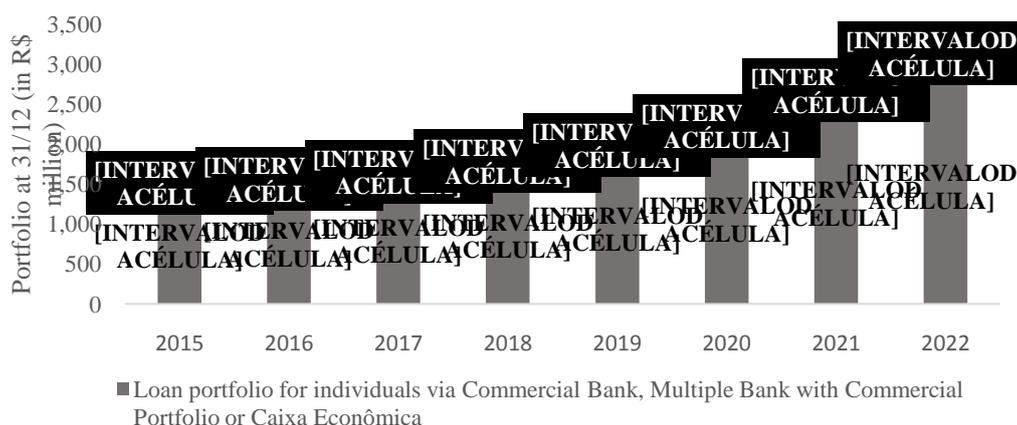
The GDP CAGR, which showed results close to 8.01%, represents the average annual growth of the country's gross domestic product. GDP is a broad measure of the market value of all goods and services produced within an economy over a given period of time. Therefore, GDP growth reflects the overall performance of the economy.

Comparing the CAGRs of the credit portfolio and GDP, it can be seen that the credit portfolio grew faster than the general economic growth represented by GDP. This difference can be explained by various factors, such as credit stimulus policies, increased demand for financing, changes in economic or regulatory conditions, among others.

In summary, the analysis of the evolution of the credit portfolio compared to GDP over the last 7 years indicates solid growth in the credit portfolio at a faster pace than overall economic growth. This analysis provides insights into lending and financing activity and can be useful for assessing the impact of the credit market on the Brazilian economy. In this context, *fintechs* stand out for offering technological tools, which make credit and debt renegotiations more accessible.

Based on this data, it is important to evaluate the composition of credit portfolios between traditional financial institutions (multiple banks, commercial banks and Caixa Econômica Federal) and other financial institutions (mainly *fintechs*):

Graph 2 - Distribution of the loan portfolio for individuals between traditional banks and other financial institutions



Source: prepared by the authors (2023)

In Graph 2, it is important to note that the portfolio shown takes into account the volume of credit made available to individuals by financial institutions, again excluding portfolios acquired through the assignment of credit with risk retention by another financial institution, as they do not show the segmentation of the type of loan to which they refer. In addition, the proportion of the loan portfolio for individuals held by traditional financial institutions showed a gradual downward trend during the period analyzed.

When analyzing traditional banks, it can be seen that the proportion started at 93% in 2015 and then fell to 89% in 2021 and 2022. This finding corroborates what Faria *et al.* (2019) had already pointed out, that there are signs that the services offered by traditional banks are losing ground to new configurations. This decline can be attributed to various factors, such as the emergence and growth of other financial institutions, such as *fintechs* and credit unions, which offer alternatives to traditional banks. It should again be noted that BCB Resolution 4656 may explain this new behavior in the credit granting market in Brazil, reducing the concentration of traditional banks and expanding to new *players* in the financial market.

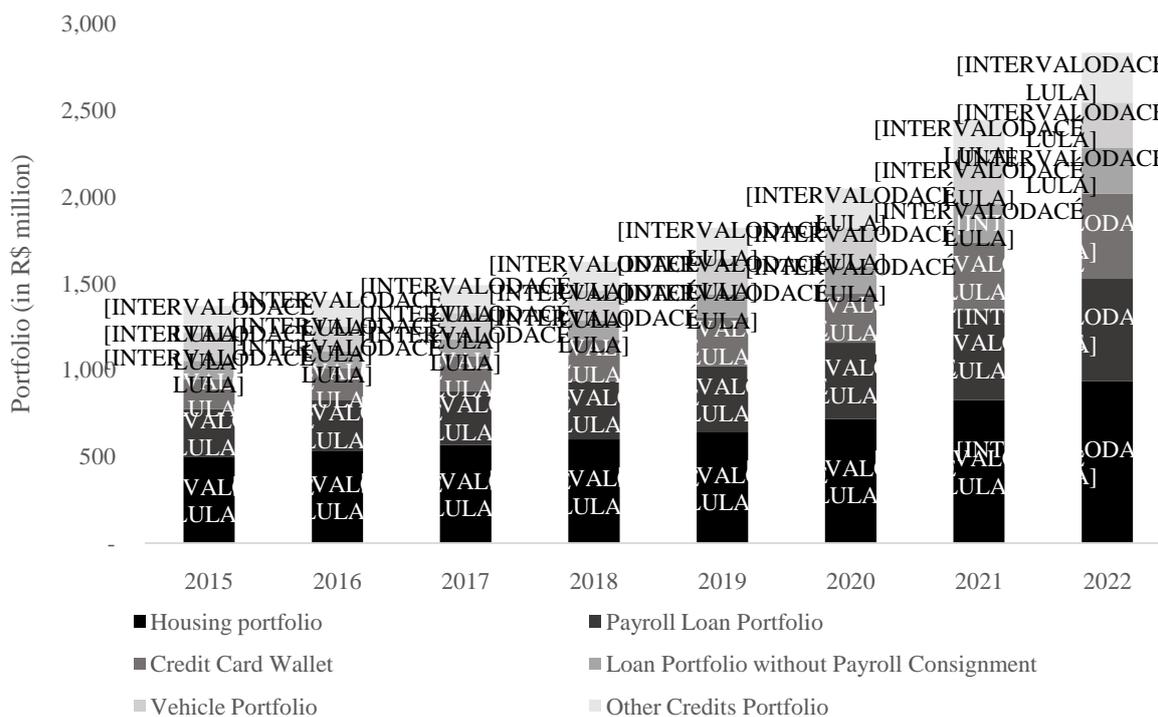
In addition, changes in consumer preferences and the search for more accessible and flexible credit options may also have contributed to this reduction in commercial banks' share of lending.

This analysis reveals a downward trend in the proportion of the loan portfolio for individuals via commercial banks, multiple banks and Caixa Econômica, while the proportion of the loan portfolio for individuals via other financial institutions has increased over the years. This may indicate changes in the financial market, with an increase in the supply of loans by institutions other than traditional banks.

This evolution in proportions suggests greater competition and diversification in the credit market, which can be beneficial for consumers, who have access to a wider variety of lending options. In addition, this trend could drive innovation in the financial sector, stimulating the adoption of more efficient and customer-centered technologies and practices. These results are in line with what Ferreira *et al.* (2018) pointed out, that *fintechs* do not represent the end of the banking sector and other financial institutions, but provide greater competition and consequently drive other changes for customers.

In order to understand how this behavior is reflected among the different credit products, the credit portfolio over the last 7 years is segmented below in Graph 3:

Graph 3 - Evolution of the loan portfolio by segment



Source: prepared by the authors (2023)

The data presented in Graph 3 gives an overview of the relative distribution of the loan portfolio in different categories. Some trends can be observed, such as a reduction in the share of the vehicle portfolio and an increase in the share of the credit card portfolio over time. This information can be useful for understanding the evolution of loans in different sectors and making decisions related to credit and investment policies.

The credit card portfolio has evolved remarkably over the years. In 2015, it represented around 13% of the total loan portfolio, remaining stable in the following years. However, as of 2018, there has been a significant increase in the share of the credit card portfolio, reaching 17% by 2022.

This growth may reflect greater acceptance and use of credit cards by consumers, as well as an increase in the supply of credit card-related products and services by financial institutions. In addition, the facilities and

benefits offered by credit cards, such as rewards programs and ease of payment, may have contributed to the increase in demand.

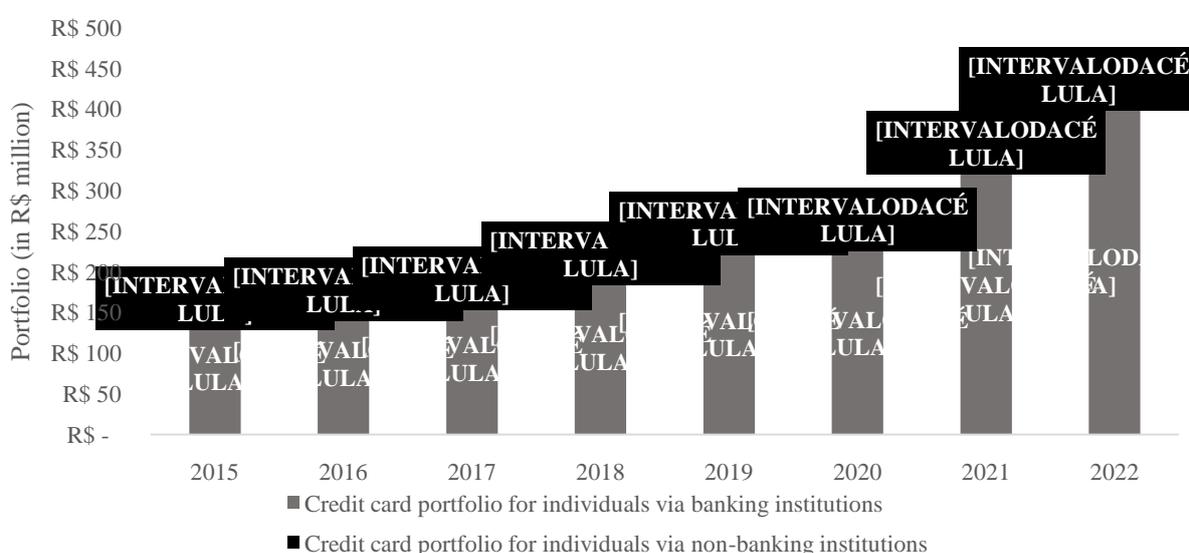
The evolution of the credit card portfolio can also be influenced by economic factors, such as the increase in the population's purchasing power and the growth of e-commerce, which boosts credit card transactions.

It is important to note that the expansion of the credit card portfolio can also bring challenges, such as an increase in consumer indebtedness and the need to monitor the risks associated with this type of loan.

In short, the positive evolution of the credit card portfolio over the years indicates the growing importance of this product in the financial market, reflecting changes in consumer habits and preferences. In this context, it can be inferred that *fintechs* have an important contribution to make to the growth of credit lines related to cards, given that they invest in making this product easy and available to users. Kim, Park and Choi (2016) pointed out that the peculiarity of *fintechs* is to offer financial services that use information technology to improve the efficiency of the financial system, thus making it easier for users.

Graph 4 below shows the evolution of the credit card portfolio for individuals by type of institution:

Graph 4 - Credit portfolio for individuals by institution



Source: prepared by the authors (2023)

The data illustrated in Graph 4 shows the distribution of the credit card portfolio for individuals between banking and non-banking institutions over the years. It can be seen that in 2015, approximately 97% of the credit card portfolio for individuals was concentrated in banking institutions, while only around 3% was in the hands of non-banking institutions. This scenario remained relatively stable in the following years, with a slight reduction in the participation of banking institutions.

Since 2018, there has been a gradual increase in the share of non-banking institutions in the credit card portfolio for individuals. In 2018, they held around 7% of the portfolio, and this figure increased to 14% in 2022. This growth suggests that non-bank institutions are gaining ground and conquering a larger share of the credit card market. It is worth noting that in 2018, BCB Resolution 4656 was issued, which regulated the direct credit company, which succinctly means that companies other than traditional banks can also offer credit lines, as long as they can prove that they have the resources to do so. This new legislation mainly favored *fintechs*, which from then on were also able to grant credit.

The evolution of the credit card portfolio over the years reflects the popularity and acceptance of this means of payment by consumers, both in banking and non-banking institutions. This growth trend indicates the importance of credit cards as a financial tool and highlights the dynamics of the financial market, driven by innovation and competition between *players*. These benefits were pointed out by the BCB (2018), highlighting that *fintechs* can increase efficiency and competition in the credit market, speed up transactions, simplify access to credit, create new conditions to reduce costs and introduce innovations.

V. CONCLUSION

It is important to note that the credit market in Brazil has undergone significant transformations in recent years, driven by the digitalization of traditional banks and the emergence of *fintechs*. Thus, the general

objective of the research was to analyze the impact on the concentration of credit granted to individuals by traditional banks in the face of the emergence and growth of *fintechs*.

Credit *fintechs* and digital banks have challenged the hegemony of the big five banks in the Brazilian banking market. These institutions offer financial products and services more efficiently, using advanced technological resources and lighter structures. With more than 100 million active accounts, digital banks such as Nubank, PicPay, Inter, Neon and C6 have increased competition in the credit market and reached different audiences.

However, it's important to note that, in the short and medium term, *fintechs* will not completely replace traditional banks in their key functions. Both play complementary roles in the financial system, each with its advantages and challenges. Diversification in the credit granting matrix is essential to meet the needs of different segments of the population.

The results of the study on *fintechs* in the Brazilian credit market and their prospects vis-à-vis traditional banks show a change in the evolution of credit granting in Brazil, leading to an increase in the supply of credit, especially in the cards sector. *Fintechs* and the increase in lending have contributed to the economic development of families, boosting the business of small and medium-sized companies and facilitating the operations of large corporations.

The study also highlights the importance of secure and accessible technology in order to expand the reach of credit concessions. The technological transformation experienced in various sectors has been reflected in the financial system, enabling the emergence of new financial products and services. *Fintechs* have been driving this transformation, offering innovative and accessible solutions to consumers.

As a limitation of the research, we note that there are few studies in the literature dealing with the evolution of *fintechs* and digital banks and the impacts they have had on traditional banks. Another perceived limitation is the impossibility of segmenting the portfolios acquired in credit assignment with risk retention by another financial institution, justifying the exclusion of this portion of the analyzed portfolio from the research sample.

For future studies, we suggest examining in greater depth and detail the effects of *fintechs* and digital banks on financial inclusion, especially in historically underserved segments of the population (people in social classes C, D and E), as it is expected that there will be greater access to credit in these groups following the entry of *fintechs*.

In addition, it is important to investigate how these institutions are driving innovation in the banking sector and influencing competition in the market. It is also relevant to analyze the regulatory and legal aspects surrounding *fintechs* and digital banks, as well as to explore the challenges related to cybersecurity and data privacy in this context.

This research makes a theoretical contribution to expanding studies and discussions about *fintechs* and their impact on the economy, since the subject is still little explored in the literature. In addition, it contributes in a practical way to a greater understanding of the behavior of the financial market and the impact of the insertion of new forms of business in this niche, which makes other discussions of a practical nature possible, such as regulatory aspects of *fintechs* and traditional banks.

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