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Banks, their Mini Banks and their "Finance Companies": Interest Rates within Financial Holdings in Brazil

Bancos, seus Minibancos e suas "Sociedades Financeiras": Taxas de Juros nas Holdings Financeiras no Brasil

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ABSTRACT

"Finance companies" (technically, credit, financing, and investment companies – SCFIs), as well as franchise companies and bank correspondents, coexist with large banks within the same economic groups. We have tested the hypothesis that some "finance companies" focus on more vulnerable customers, who would accept to contract credit at higher interest rates than those practiced by large banks from the same holding. We have used time series based on data from the Central Bank of Brazil on interest rates. Some "finance companies" have higher interest rates when compared to the main banks within the same financial conglomerate. It may reflect the idea that the Brazilian financial conglomerates have different companies (their main banks and their SCFIs, for example) for different niche markets. However, we also find situations in which major banks charge higher interest rates than the same group's "finance companies". Furthermore, we present the main regulation of the SCFIs and the way they relate to banks, banking correspondents and franchises in Brazil. Finally, we examine the SCFI's equity profile looking for eventual association among major banks and non-banking economic groups.

Keywords: Financial institutions. Family firms. Credit card. Bank lending. Shareholding.

JEL: E50; G21; K29.

RESUMO

"Financeiras" (tecnicamente, sociedades de crédito, financiamento e investimento – SCFIs), bem como franquias de crédito e escritórios de correspondentes bancários convivem com grandes bancos no interior de conglomerados econômicos. Testamos a hipótese de que algumas "financeiras" seriam voltadas a nichos de clientela mais vulnerável, que aceitariam contratar crédito com juros mais elevados do que os praticados pelos grandes bancos do mesmo grupo. Construímos séries temporais com base em dados do Banco Central a respeito de taxas de juros. Há diversas ocorrências da prática de juros mais elevados por parte das subsidiárias em relação aos bancos principais. Isso pode refletir a ideia de que os conglomerados financeiros brasileiros têm diferentes empresas (o banco central e a "financeira" subsidiária, por exemplo) para atenderem a diferentes nichos de mercado. Todavia, também encontramos situações em que bancos principais cobram juros mais elevados do que suas "financeiras" subsidiárias. Além disso, apresentamos a regulação das SCFIs e a forma como elas se relacionam com bancos, correspondentes bancários e franquias. Por fim, examinamos o perfil acionário das SCFIs, buscando eventual associação aos maiores bancos ou a grupos econômicos não bancários.

Palavras-chave: Instituições financeiras. Empresa familiar. Cartão de crédito. Empréstimo bancário. Composição acionária.

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1. Introduction

Interest rates are a classic theme in the Brazilian economic literature. Arida, Bacha and Lara-Rezende (2005), and Castelar Pinheiro (2003) point out bias in courts decisions in favor of consumers, and how it would raise incentives for higher interest rates. On the other hand, Ribeiro (2006) and Yeung and Furquim (2016) point to the judge's neutrality in Brazil. This work is part of this debate, but it distances itself from the litigation subject.

We focus on the idea that there may be different strategies about interest rates within the same economic groups. This article highlights the performance of daughter companies (especially SCFIs) in comparison to conglomerate's main banks. We aim to check whether there are market division gathering vulnerable clients that could potentially accept loans with higher interest rates. In addition to that, we dig into the roles of the SCFIs (and other smaller financial agents, such as bank correspondents and bank franchises) to identify their role in the Brazilian credit market for households.

Why would someone prefer to take cash with higher interest rates from a "finance company" if the main bank from the same group offers better conditions? While we can't offer an answer for this question, this paper opens a research agenda to understand why finance holdings keep their main banks and their daughter companies alike. Is it a niche strategy? Do the daughter companies necessarily borrow at higher interest rates? What are the potential reasons for the main banks to lend money at lower interest rates, sometimes? What is the take-home information about SCFIs and the other typical daughter companies? Many of the SCDIs belong to traditional holding banks. But most of them do not. Who own them? What role do they play in non-financial holdings? These are some of the questions this paper answers.

Credit, financing, and investment companies (SCFIs) are relevant vectors of credit supply in Brazil, as they are specialized in certain types of credit and niche customers. Big finance conglomerates use differente strategies for their wide-spread capillarity across Brazil. These strategies include the use of SCFIs but also other structures, including banking correspondents (individuals acting in the name of the SCFI that gives them rewards for every contract) and franchises. The expression "finance company" (or "financeira", in Portuguese), embraces all these types of activities, considered as the "little daughter banks" within a finance holding. Sometimes, the "finance company" is not wholly owned [6] by the finance holdings, as retailers have a major role in this market too.

Colluci Neto et al. (2020, p. 73-74) observed that "finance companies" (SCFI agencies, subsidiaries, credit franchises and bank correspondents' offices) coexisted with large banks in the same urban areas. Colluci Neto et al (2020) claim that one of the possible explanations to that is that "finance companies" specialize in low-income and high-risk default groups, charging high-interest rates. If there are "finance companies" that are part of large banking groups, those would function as conglomerates specialized branches, charging higher interest rates than the main bank would, in the same credit modalities. We put this last hypothesis to the test by comparing interest

[6] For the purposes of this article, the expression "daughter company" will work in a generic way, meaning "non-principal". This way, the terms "daughter institution", "subsidiary bank", "non-principal bank", "controlled company", "finance company from the same economic group" or simply "subsidiary" will be used interchangeably, as opposed to the terms "institution central part of the economic group" or "main bank". Therefore, within the scope of this article, "daughter company" does not depend on whether it is a wholly owned subsidiary or simply a controlled company.

rates between "finance companies" and their controllers, which are the main banks[7] at the same financial conglomerates.

This article is divided into four sections, in addition to this introduction (1) and a conclusion (6). In section one, we present data made available by the Central Bank (BACEN) and elaborate time series of interest rates, allowing comparisons among the interest rates charged by "finance companies" and the main banks from the same economic groups, in the same types of credit.

In section two, we present the regulatory features of the Brazil's local monetary agency (National Monetary Council) that establish the identity of the "finance companies", in detailing the SCFIs, explaining the banking correspondents and franchise's role for these agents, and highlighting the differences and relationships between SCFIs and traditional banks.

In section three we discuss the SCFIs equity profile in Brazil. We do that based on the shareholder composition data analysis (obtained through the Brazilian Access to Information Law, No. 12,527, of November 18, 2011). We also describe and discuss: (i) finance companies linked to one of the five major banks; (ii) finance companies linked to banking conglomerates, except those of the five major banks; (iii) finance companies linked to non-banking economic groups; and (iv) independent finance companies.

2. Finance Companies, Subsidiaries and Large Banks: Possible Strategic Interactions and Interest Rate Comparisons

"Finance companies" can specialize in certain customer niches. These niches may be based on high default risk or requirement of very specific knowledge, which would explain higher interest rates (Bacen, 2015, p. 48). Colluci Neto et al. (2020, p. 73-74) argue that this specialization phenomenon, associated with high-interest rates, is one of the possible reasons why, in some contexts, "finance companies" share the same urban areas with traditional large banks. In addition, if large banks have "finance companies" in their economic groups, there may be incentives to relegate them to serving certain niches of customer, including the poorest and the most vulnerable households.

> A possible strategic intelligence is to untie the different finance companies' image from the conglomerate, giving poor attention to those who go to the traditional bank branch so that they are compelled to resort for credit in the financial company from the same group, which is right in front of them in many cities, as occurred in the analyzed area.
> The social results of eventual poor customer service at the traditional bank [is that they will feel] (…) Compelled to look for a solution to their credit needs in an SCFI, in a credit franchise or in a bank correspondent, the borrower will naturally be subject to receiving contractual proposals with higher interest rates (Colluci Neto et al., 2020, p. 74).

To test our hypothesis, we needed to compare the interest rates practiced by large banks and their "finance companies" in the same types of credit.

[7] As will be explained, for the purposes of this article, we understand the following as "large banks": Itaú-Unibanco, Bradesco, Banco do Brasil, Caixa Econômica Federal and Santander.

We have compared the interests charged in the "non-payroll credit", "revolving credit on credit cards", "payroll-deductible credit" and "payroll-deductible credit from the Social Security National Institute (Brazilian Instituto Nacional do Seguro Social)". These types of credit are widespread among households, and some of them were especially mentioned by the employees of "finance companies" interviewed by Colluci et al. (2020, p. 75).

In the "non-payroll credit" and "payroll-deductible credit" types, the main banks have much lower interest rates. In the "revolving credit on credit cards" category, there is a division: some "finance companies" charged higher interest rates in some cases and lower in others. The reason why some of the "finance companies" charge lower rates than the main banks in the same economic group is unclear. We explore hypotheses related to the retailer's anticipation of credit card payments, one of the banks' shareholding compositions, and one of the "finance company" geographic area of operation. On the other hand, in the "payroll-deductible credit in the Social Security National Institute" type, there is little variation in the interest rate between the subsidiary and the main institutions, with the interest of the latter being higher.

Our data captures several occurrences in which "finance companies" have higher interest rates than the main banks in the same economic conglomerate. It may reflect, as in the proposed hypothesis, that exists credit specialization in certain customer niches. However, we also find evidence to the opposite, as a few major banks charge higher interests than their "finance companies". In addition, we observe some situations in which "finance companies" and the groups' main banks alternate, often charging higher or lower interest rates over time. Thus, although we portray cases in which the "finance companies" charged higher interest rates than the main banks, we should avoid generalizations.

It is important to mention that the interest rates, as provided by the Central Bank of Brazil, are averages of several operations within a credit type. So, it is possible that the interest rates we measure are different from the ones most borrowers could contract. Our data offer a global analysis, but it does not allow comparisons to identify a specific customer profile, such as customers in the same income bracket or customers with the same credit score, for example. Another caveat is that the main banks and their "finance companies" do not always operate under the same credit types, so that our comparisons are possible only for limited sets of institutions in each type of credit.

The data used to draw up the graphs showing the interest evolution are public, made available by the Brazilian Central Bank based on the Credit Information System (SCR), under the terms of the National Monetary Council Resolution no. 4,571, of May 2017. However, these data, as made available by the regulator, are dispersed in a format that does not allow comparisons over time. Therefore, we developed a tool that captured and organized the data in time series[8]. The time series comprehend different periods. It reflects the fact that some banks didn't operate in the same kinds of loans for the whole time.

[8] We obtained and organized the data through the following procedure: (i) in order to obtain it, we created a script using the Python programming language, which makes requests to the Central Bank's API (Application Programming Interface), with the required parameters. The data were saved in a .csv file (Comma Separated Values), generating a graph for each comparison; (ii) the API requests were made through the requests library in the Python system, and the parameters used were: "Credit Modality" and "Financial Institution"; (iii) the data obtained were in json format (Java Script Object Notation): compact format, independent open standard, simple and fast data exchange between systems; (iv) the .json file was processed and transformed into a dataframe through the Python panda library; (v) the dataframe was saved in a .csv file, from which we generated the comparative graphs of annual interest rates, using Python's Seaborn and Matplotlib libraries. The graphics were saved in png image format; (vi) the Python script was registered on the Google Colab platform (https://colab.research.google.com/), allowing the creation of codes in a shared way. This platform also integrates with Google Drive, in which the .csv files and graphics were stored.

The banks and "finance companies" send their own data to the BACEN. We have asked for the quality control of the data, and we received the following answer:

> the information quality control occurs at several levels, starting with an automatic data verification that must meet pre-established validation criteria. Then, it goes through a second verification level by analysts regarding suspicious data (outliers) and finally, there is a third analysis in relation to the consolidated data for the financial system as a whole.

Regarding the interest rates considered and aggregated in historical series in this article, the BACEN further explained that:

> Interest rates per financial institution (...) represent averages of interest rates agreed on transactions carried out in the five business days referred to in each publication, examined by the respective contracted values.
> These interest rates represent the average credit operations effective cost for customers, composed of interest rates effectively practiced by financial institutions in their credit operations, plus the tax and operational charges on operations.
>
> The interest rates presented correspond to the rates average practiced in the various operations carried out by financial institutions in each credit type. In the same modality, interest rates differ among clients of the same financial institution and vary according to several risk factors involved in the operations, such as the value and quality of the guarantees presented in the credit hiring, the amount of the payment given as entry for the operation, each client's history and registration status, the operation term, among others.[9]

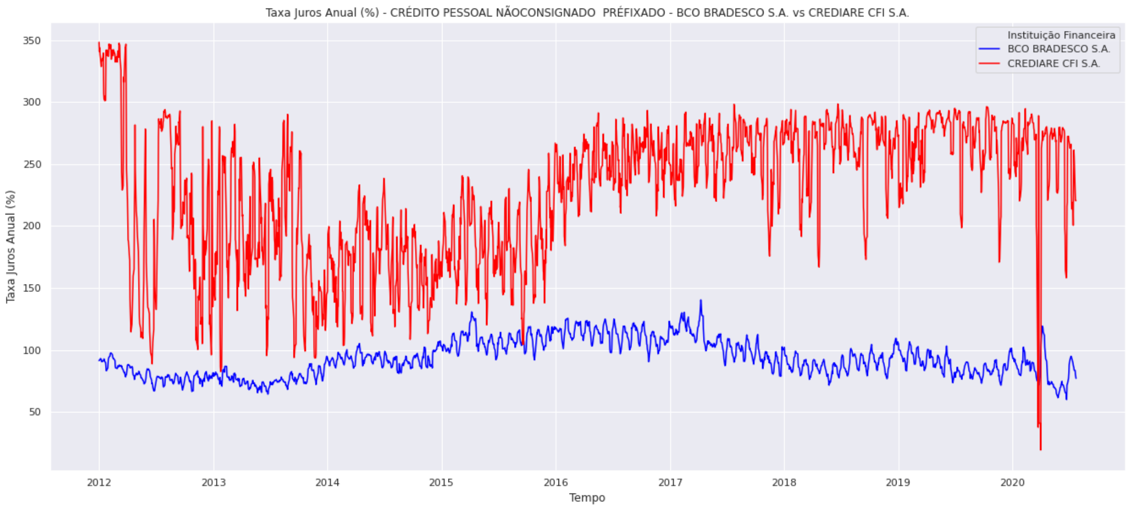
The absence of data from a specific finance company or bank in part of the historical series may be due to the fact that the some of them (i) did not carry out credit operations in the modality in that period or (ii) did not provide BACEN with the information[10].

2.1 Non-payroll Credit

Graphs I to III show the comparisons between annual interest rates of main banks and their subsidiaries (one of the categories of "financial companies") over time for non-payroll credit[11]. In this modality, the subsidiaries predominantly showed higher interest rates than the central bank, except in the relation shown in the graph and table III.

[9] Available on <https://www.bcb.gov.br/estatisticas/txjuros>. Accessed on 07/22/2020.
[10] Available on <https://www.bcb.gov.br/estatisticas/txjuros>. Accessed on 07/22/2020.
[11] This credit line refers to "personal credit operations without payroll discounts". Available on <https://www.bcb.gov.br/content/estatisticas/docs_estatisticasmonetariascredito/glossariocredito.pdf>. Accessed on 07/23/2020.

Graph I – Non-payroll credit – Interest per year (%)
Banco Bradesco S.A., Crediare CFI S.A.



Text: Financial Institution – Interest Per Year (%) – Time
Source: elaborated by the authors.

Table I – Descriptive statistics – Non-payroll credit – Interest per year (%)
Period: 01/2012 to 07/2020
Banco Bradesco S.A., Crediare CFI S.A.

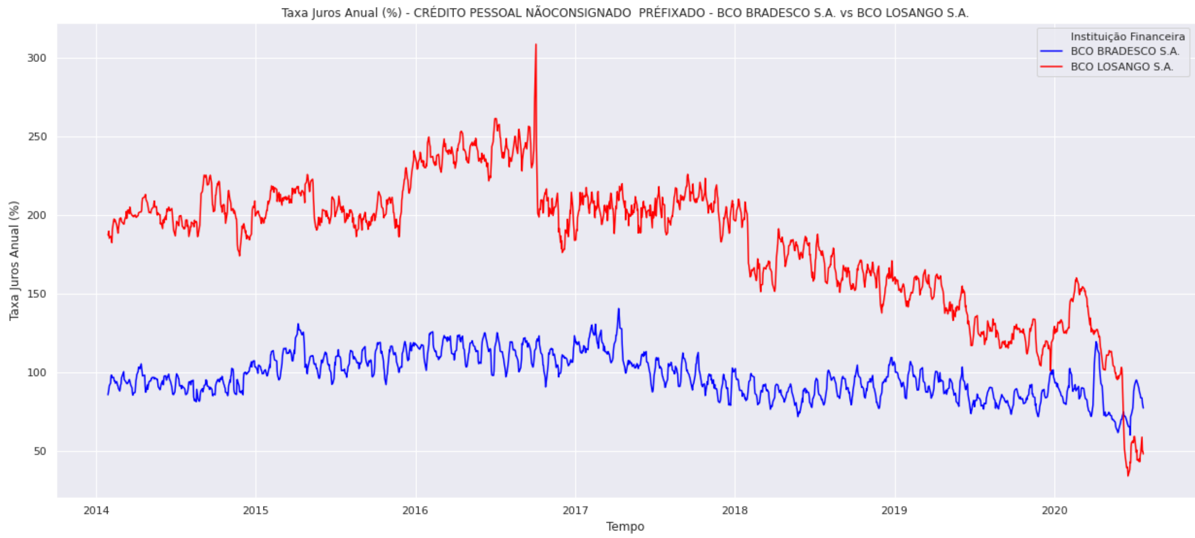
		Banco Bradesco S.A.	Crediare CFI S.A.
N		2149	2148
Average		93.0266	227.3923
Median		91.3000	239.4750
Standard deviation		14.62923	55.43533
Range		80.52	329.13
Minimum		59.90	19.23
Maximum		140.42	348.36
Percentiles	25	81.1450	183.2625
	50	91.3000	239.4750
	75	103.6950	272.7725

Source: elaborated by the authors.

In graph I, from January 2012 to July 2020, we compare the interest rates practiced in the "non-payroll credit" modality by Banco Bradesco S.A. and the finance company Crediare CFI S.A.. It can be seen that Crediare CFI S.A. charged substantially higher interest rates over virtually the entire time series.

Table I shows that Crediare CFI S.A. had an average of 227.3923% per year and a median of 239.4750% per year, against an average of 93.0266% per year and a median of 91.3000% per year from Banco Bradesco S.A.

Graph II – Non-payroll credit – Interest per year (%)
Banco Bradesco S.A., Banco Losango S.A.



Text: Financial Institution – Interest Per Year (%) – Time
Source: elaborated by the authors.

Table II – Descriptive statistics – Non-payroll credit – Interest per year (%)
Period: 01/2014 to 07/2020
Banco Bradesco S.A., Banco Losango S.A.

		Banco Bradesco S.A.,	Banco Losango S.A.
N		1628	1628
Average		97.6236	183.7489
Median		96.3550	196.3400
Standard deviation		13.45317	41.40325
Range		80.52	274.74
Minimum		59.90	33.81
Maximum		140.42	308.55
Percentiles	25	87.7625	157.6750
	50	96.3550	196.3400
	75	107.6900	209.5950

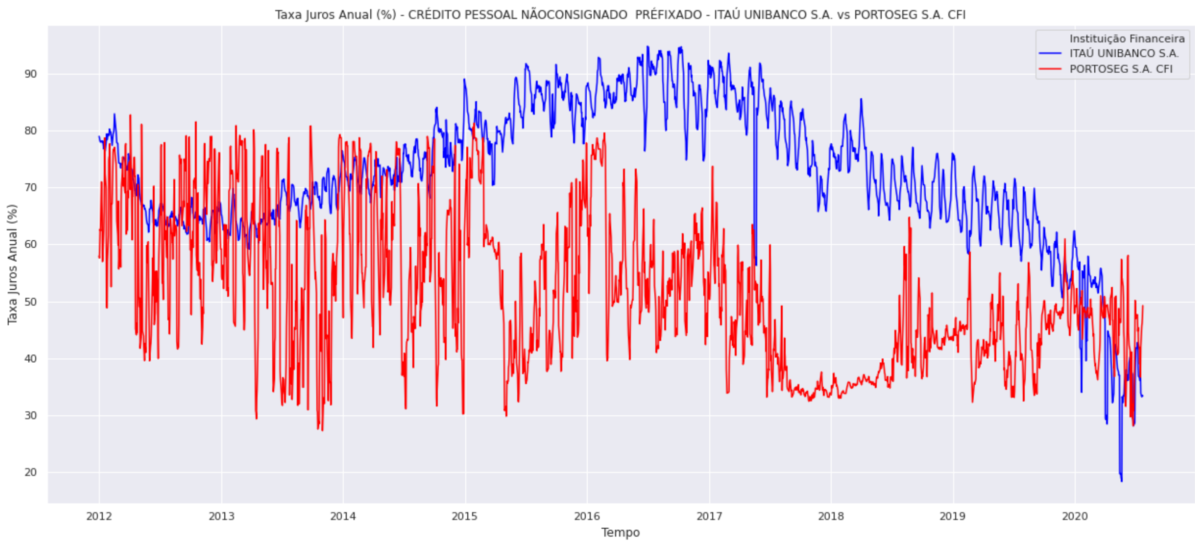
Source: elaborated by the authors.

In graph II, from January 2014 to July 2020, we compare the interest rates practiced by Banco Losango S.A. and Banco Bradesco S.A. in the "non-payroll credit" modality. Banco Losango S.A. belongs to Bradesco's economic group.

We can see that Banco Losango S.A. charged substantially higher interest rates than Banco Bradesco S.A. during almost the entire period in which it operated.

Thus, the average for Banco Losango S.A. was 183.7489% per year, against 97.6236% per year for Banco Bradesco S.A., while the median for Banco Losango S.A. was 196.3400% per year, against 96.3550% per year for Banco Bradesco S.A.

Graph III – Non-payroll credit – Interest per year (%)
Itaú Unibanco S.A., Portoseg S.A. CFI



Text: Financial Institution – Interest Per Year (%) – Time
Source: elaborated by the authors.

Table III – Descriptive statistics – Non-payroll credit – Interest per year (%)
Period: 01/2012 to 07/2020
Itaú Unibanco S.A., Portoseg S.A. CFI

		Itaú Unibanco S.A.	Portoseg S.A. CFI
N		2148	2130
Average		72.4566	51.2234
Median		72.4450	48.8650
Standard deviation		12.39336	13.00481
Range		76.42	55.45
Minimum		18.36	27.29
Maximum		94.78	82.74
Percentiles	25	65.3225	41.1100
	50	72.4450	48.8650
	75	81.9300	59.9125

Source: elaborated by the authors.

In graph III, we compare the interest rates practiced in the "non-payroll credit" modality by Itaú Unibanco S.A. and the finance company Portoseg S.A. CFI, member of the Itaú group and the insurance company Porto Seguro group, from January 2012 to July 2020. Between 2012 and the beginning of 2014, Portoseg S.A.'s interest was either higher or lower, always with greater short-term variations than those from Itaú Unibanco.

However, from mid-2014 to the beginning of 2020, Itaú Unibanco showed considerably higher rates. Only in 2020, at the end of the series, did Portoseg S.A. return to higher rates. Table III shows that Itaú Unibanco S.A. had a higher average and median than Portoseg S.A. CFI in just over 20 points. Insurance companies are financial institutions that must maintain large reserves due to legislative requirements and the nature of their activity.

The behavior of Portoseg S.A. is anomalous when compared to the other personal credit analyses mentioned above. One hypothesis for that is that insurers must reserve high guarantees, according to the Brazilian regulation. It is possible that Portoseg S.A. aims to practice lower profit margins because of the regulation over the insurance branch of the group.

2.2 Credit Cards Revolving Credit

Graphs IV to VII express comparisons between banks and their subsidiaries over time, in credit cards revolving credit[12]. In this kind of credit, we find comparisons in which the subsidiaries charged higher interest rates than the main bank, as well as a comparison in which the main bank once charged higher interest rates.

The credit card market is a two-sided market, in which cardholders, but also retailers/ service providers matter. In Brazil, the credit card company takes around forty days to deliver the amount due to the seller of a purchase paid with credit card.

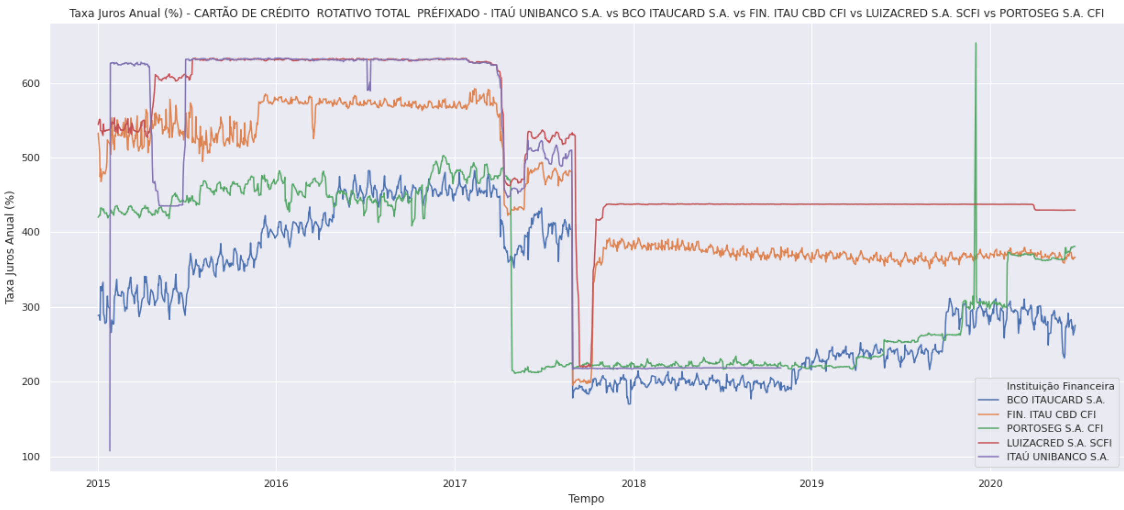
The values to be received can be anticipated, with a discount of the amount due. The anticipation of the values due play an important role in the segmenting of the economic groups. The role of the anticipation of due payments blurs the cardholders only motivation for interest rates.

In this sense, we consider that the division between Itaú Unibanco S.A. and Banco Itaucard S.A. is probably guided by the logic of anticipation of due purchases, while the division between Banco Itaú and Financeira Itaú S.A., Luizacred S.A. and Portoseg S.A. is probably guided by the expectation of serving the low-income public. We also consider that the division between Banco Bradesco S.A., Banco Bradesco Cartão S.A. and Banco Bradescard S.A. can be explained by the organization of anticipation of due payments.

The division between Banco Bradesco S.A. and Banco Losango S.A. seems to serve to the creation of the poorest of family's market niche.

[12] This modality comprises the "financing operations of the remaining debt balance after the partial payment of credit card bills. It includes cash withdrawals with the use of the card in the 'credit' function". Available on <https://www.bcb.gov.br/content/estatisticas/docs_estatisticasmonetariascredito/glossariocredito.pdf>. Accessed on 07/23/2020.

Graph IV – Credit cards revolving credit – Interest per year (%)
Banco Itaucard S.A., Financeira Itaú CBD S/A CFI, Portoseg S.A. CFI, Luizacred S.A. SCFI, Itaú Unibanco S.A



Text: Financial Institution – Interest Per Year (%) – Time
Source: elaborated by the authors.

Table IV – Descriptive statistics – Credit cards revolving credit – Interest per year (%)
Period: 01/2015 to 10/2018
Itaú Unibanco S.A., Banco Itaucard S.A., Financeira Itaú CBD S/A CFI, Luizacred S.A. SCFI, Portoseg S.A. CFI

		Itaú Unibanco S.A.	Banco Itaucard S.A.	Financeira Itaú CBD S/A CFI	Luizacred S.A. SCFI	Portoseg S.A. CFI
N		943	959	959	959	959
Average		477.8705	336.2345	486.5688	546.1337	361.6675
Median		624.5800	360.5000	525.3500	604.6100	431.4700
Standard deviation		183.1894	102.7458	95.1980	97.0021	114.4187
Range		526.31	312.91	397.42	413.61	291.65
Minimum		107.12	169.88	195.03	219.54	211.21
Maximum		633.43	482.79	592.45	633.15	502.86
Percentiles	25	218.3500	203.2100	382.8400	437.8400	222.5500
	50	624.5800	360.5000	525.3500	604.6100	431.4700
	75	631.4200	427.7100	570.4400	631.4700	458.3800

Source: elaborated by the authors.

Table V – Descriptive statistics – Credit cards revolving credit – Interest per year (%) Period: 01/2015 to 06/2020

Banco Itaucard S.A., Financeira Itaú CBD S/A CFI, Portoseg S.A. CFI, Luizacred S.A. SCFI

		Banco Itaucard S.A.	Financeira Itaú CBD S/A CFI	Luizacred S.A. SCFI	Portoseg S.A. CFI
N		1371	1371	1371	1370
Average		312.2182	450.7675	513.1733	336.9065
Median		297.9500	387.8100	437.9600	306.9800
Standard deviation		94.94248	96.59136	95.45923	107.85631
Range		312.91	397.42	413.61	442.52
Minimum		169.88	195.03	219.54	211.21
Maximum		482.79	592.45	633.15	653.73
Percentiles	25	225.7700	369.6000	437.5200	222.5950
	50	297.9500	387.8100	437.9600	306.9800
	75	403.8700	558.8800	630.6200	447.2900

Source: elaborated by the authors.

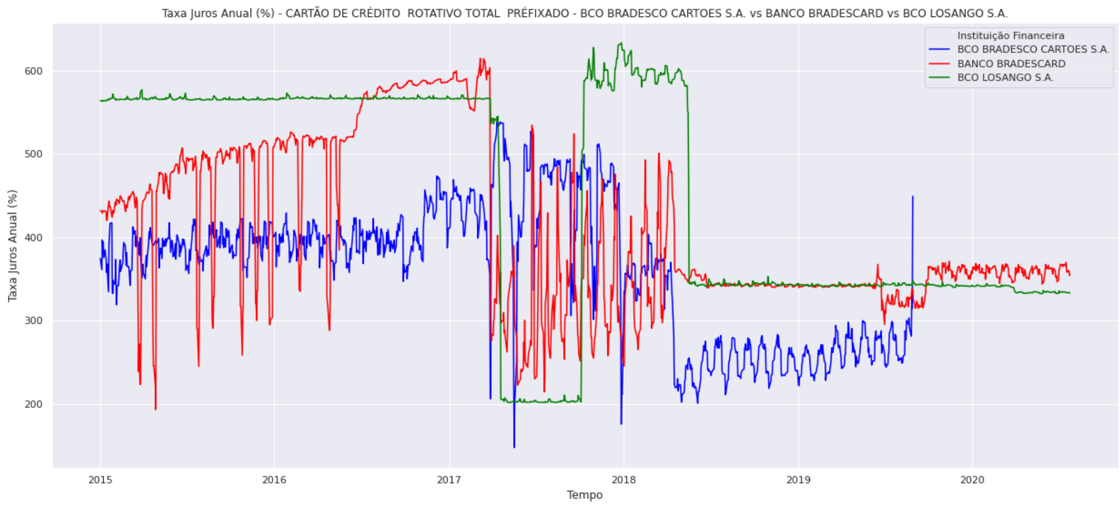
In chart IV, from January 2015 to June 2020, we compare the interest rates practiced in the "**credit cards revolving credit**" modality by Itaú Unibanco S.A., Banco Itaucard S.A. and three finance companies that present the Itaú group participation in their shareholding compositions: Financeira Itaú CBD S/A CFI, Portoseg S.A. CFI and Luizacred S.A. SCFI.

We note that Banco Itaucard S.A. charged lower interest rates than Itaú Unibanco and the three finance companies from its economic group during most of the period analyzed.

In relation to Banco Itaucard S.A, Financeira Itaú CBD S/A CFI and Luizacred S.A. SCFI charged substantially higher rates throughout the series, while Portoseg S.A. CFI had slightly higher interest rates most of the time. Itaú Unibanco operated with very close interest rates to Luizacred S.A. SCFI, which, in turn, operated with the highest rates among the five institutions. Itaú Unibanco ceased to present data in October 2018.

In table IV, we present the descriptive statistics of these five institutions until Itaú Unibanco ceased to operate. Table V shows the descriptive statistics up to the end of the series (June 2020), excluding Itaú Unibanco.

Graph V – Credit cards revolving credit – Interest per year (%)
Banco Bradesco Cartões S.A., Banco Bradescard S.A., Banco Losango S.A.



Text: Financial Institution – Interest Per Year (%) – Time
Source: elaborated by the authors.

Table VI – Descriptive statistics – Credit cards revolving credit
Interest per year (%) – Period: 01/2015 to 07/2020
Banco Bradesco Cartões S.A., Banco Bradescard S.A., Banco Losango S.A.

		Banco Bradescard S.A.	Banco Bradesco Cartões S.A.	Banco Losango S.A.
N		1393	1167	1393
Average		408.7699	361.5741	449.5162
Median		361.3400	382.2900	564.3900
Standard deviation		99.29815	81.04485	132.84493
Range		421.59	390.91	431.88
Minimum		193.00	147.33	201.46
Maximum		614.59	538.24	633.34
Percentiles	25	341.2450	277.9400	341.8700
	50	361.3400	382.2900	564.3900
	75	502.3150	410.7300	566.3750

Source: elaborated by the authors.

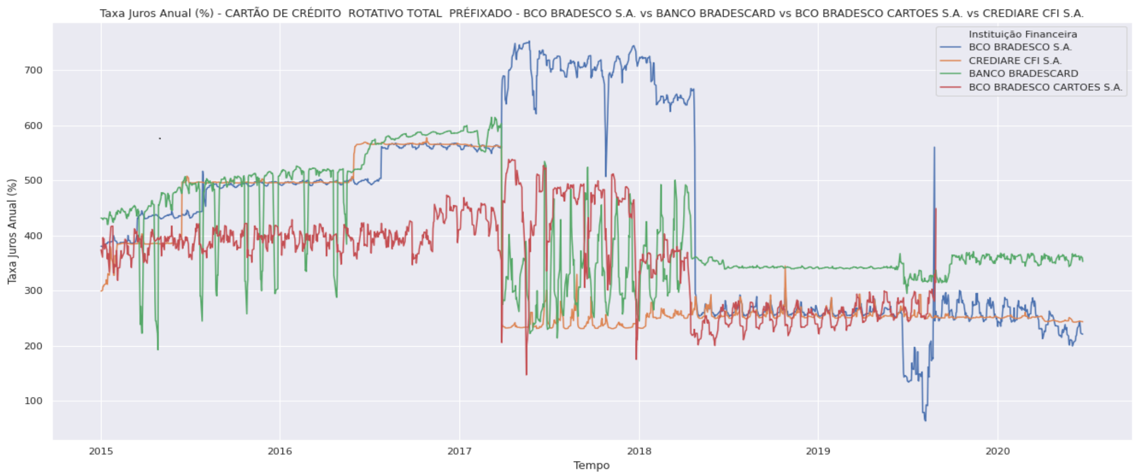
In chart V, from January 2015 to July 2020, we compare the interest charged in the "**Credit cards revolving credit**" modality by Banco Bradescard, Banco Bradesco Cartão S.A. and Banco Losango S.A.[13]. In the periods from January 2015 to July 2016 and October 2017 to May 2018, Banco Losango S.A. charged the highest interest rates among the three institutions.

13 The graph does not include Banco Bradesco S.A.. However, if we considered the annual interest rates practiced by Banco Bradesco S.A. in the January 2015 to June 2020 modality, we would obtain an average of 437.8516 and a median of 483.9600, still slightly lower than those from Banco Losango S.A..

However, between April and October 2017, it charged the lowest interest rates. From May 2018 to the end of the series, Banco Losango S.A. operated with very close interest rates to those from Banco Bradescard and higher than those from Banco Bradesco Cards S.A..

Banco Bradesco Cartões S.A. did not present costs after the end of August 2019. Banco Losango S.A. had a higher average and median – 449.5162 and 564.3900, respectively – than Banco Bradescard S.A., which obtained an average of 408.7699 and a median of 361.3400, and Banco Bradesco Cards S.A., which obtained an average of 361.5741 and median of 382.2900.

Graph VI – Credit cards revolving credit – Interest per year (%)
Banco Bradesco S.A., Crediare CFI S.A., Banco Bradescard, Banco Bradesco Cartões S.A.



Text: Financial Institution – Interest Per Year (%) – Time
Source: elaborated by the authors

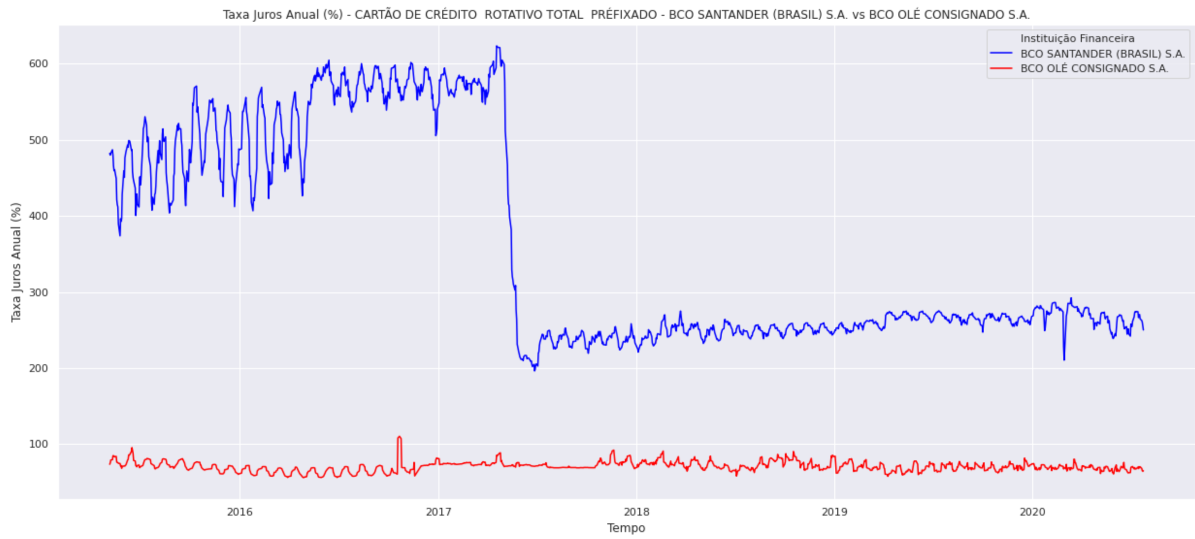
Table VII – Descriptive statistics – Credit cards revolving credit – Interest per year (%) Period: 01/2015 to 06/2020
Banco Bradesco S.A., Banco Bradesco Cartões S.A., Banco Bradescard S.A., Crediare CFI S.A.

		Banco Bradesco S.A.	Banco Bradescard S.A.	Banco Bradesco Cartões S.A.	Crediare CFI S.A.
N		1371	1371	1167	1371
Average		437.8516	409.5447	361.5741	352.1074
Median		483.9600	361.3700	382.2900	259.2200
Standard deviation		174.1187	99.8987	81.0449	129.4826
Range		688.94	421.59	390.91	346.28
Minimum		63.89	193.00	147.33	231.25
Maximum		752.83	614.59	538.24	577.53
Percentiles	25	261.9900	341.1800	277.9400	250.9600
	50	483.9600	361.3700	382.2900	259.2200
	75	562.4400	503.2400	410.7300	495.9800

Source: elaborated by the authors.

In graph VI, from January 2015 to June 2020, we compare the interests charged in the **credit cards revolving credit** modality by Banco Bradesco S.A., Banco Bradescard, Banco Bradesco Cartões S.A. and Crediare CFI S.A., which is the finance company into the Bradesco group. From mid 2015 to the beginning of 2017, Crediare CFI S.A presented very close interest rates from those of the Banco Bradesco S.A. and the Banco Bradescard, but above those charged by Banco Bradesco Cartões S.A.. From early 2017 until the end of the series, Crediare S.A. charged stable interest rates, which were below the three banks until the beginning of 2018. From early 2018 until the end of the series, Bradesco Cartões S.A. series were close to Banco Bradesco S.A. and Banco Bradesco Cartões S.A., but below Banco Bradescard. Table VI shows that Banco Bradesco S.A. had the highest average and median.

Graph VII – Credit cards revolving credit – Interest per year (%)
Banco Santander (Brasil) S.A., Banco Olé Consignado S.A.



Text: Financial Institution – Interest Per Year (%) – Time
Source: elaborated by the authors.

Table VIII – Descriptive statistics – Credit cards revolving credit - Interest per year (%) – Period: 05/2015 to 07/2020
Banco Santander (Brasil) S.A., Banco Olé Consignado S.A.

		Banco Santander (Brasil) S.A.	Banco Olé Consignado S.A.
N		1297	1303
Average		361.2526	70.7510
Median		269.5700	70.4200
Standard deviation		138.74270	6.62923
Range		426.81	54.13
Minimum		196.28	56.26
Maximum		623.09	110.39
Percentiles	25	250.9700	67.0000
	50	269.5700	70.4200
	75	512.2300	73.9500

Source: elaborated by the authors.

In graph VII, from May 2015 to July 2020, we compare the interests charged by Banco Santander (Brasil) S.A. and by Banco Olé Consignado S.A. in the credit cards revolving credit modality. We note that Banco Santander (Brasil) S.A. operated at considerably higher interest rates throughout the series.

Banco Santander (Brasil) S.A. obtained an average annual interest rate of 361.2526% per year and a median of 269.5700% per year, while the intrests were 70.7510% per year and 70.4200% per year, respectively, from Banco Olé Consignado S.A.

We have a hypothesis to explain the superiority of Banco Santander interest regarding to Banco Olé Consignado S.A. We believe that Banco Olé Consignado S.A. does not really work with "conventional" cards, as Banco Santander does, but with payroll-deductible credit cards only[14]. It is possible that Banco Olé Consignado S.A. works fundamentally with the release of 5% of the salary/social security benefit deducted from the payroll through the payroll credit card[15].

We assume this based on the Technical Note no. 28/2020 from the Ministry of Justice and Public Security's General Coordination of Studies and Market Monitoring of the National Consumer Secretariat, which states the stunning fact that almost 100% of the credit cards released by the Banco Olé Consignado S.A. has never been used to purchase things, as they seem to have been created only to allow the 5% additional payroll-deductible loan.

2.3 Payroll-deductible credit

Graph VIII expresses the comparisons between annual interest rates of banks and their subsidiaries over time as payroll-deductible credit[16]. In this modality, the subsidiary charged higher interest rates than the main banks.

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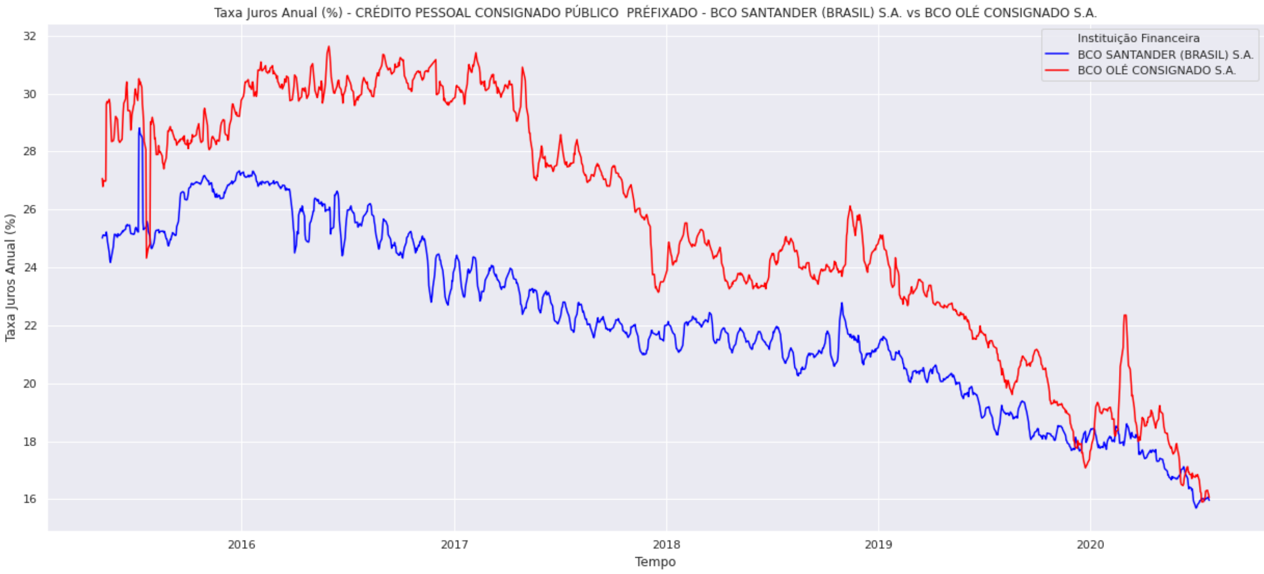
[14] Available on:<https://www.oleconsignado.com.br/cartao-de-credito-consignado/>. Accessed on 09/13/2020.

[15] "Article 1 - Employees governed by the Consolidation of Labor Laws - CLT, approved by Decree-Law No. 5,452 from May 1, 1943, may authorize, in an irrevocable and irreversible manner, the discount on payroll or in their available remuneration of the amounts referring to the payment of loans, financing, credit cards and leasing operations granted by financial institutions and leasing companies, when provided for in the respective contracts. Paragraph 1 - The discount mentioned in this article may also apply to severance payments due by the employer, if so provided for in the respective loan, financing, credit card or lease agreement, up to the limit of 35% (thirty-five percent), being 5% (five percent) destined exclusively for: I - the amortization of expenses incurred by means of a credit card; or II - the use for withdrawing by means of a credit card." Available on <http://www.planalto.gov.br/ccivil_03/leis/2003/l10.820.htm#:~:text=L10820&text=LEI%20No%2010.820%2C%20DE%2017%20DE%20DEZEMBRO% 20DE% 202003. & text = Disp% C3% B5e% 20on% 20a% 20authorizes% C3% A7% C3% A3o% 20for payment% 2C% 20e% 20d% C3% A1% 20other% 20provid% C3% AA.>. Accessed on 13/09/2020.

[16] This modality includes "payroll-deductible credit to federal, state or municipal public servants, being active or inactive". Payroll-deductible credit has payroll discounts. Available on: <https://www.bcb.gov.br/content/estatisticas/docs_estatisticasmonetariascredito/glossariocredito.pdf>. Accessed on 07/23/2020. The modality has a fixed interest rate cap. Available on: <https://www.gov.br/previdencia/pt-br/assuntos/noticias/previdencia/consignado/consignado-taxas-de-juros-nos-emprestimos-consignados-para-servidores-aposentados-e-pensionistas-tem-queda#:~:text=Da%20Reda%C3%A7%C3%A3o%20(Bras%C3%ADlia)%20%2D%20Com,da%20Uni%C3%A3o%2C%20aposentados%20e%20pensionistas.&text=A%20taxa%20passa%20de%203,3%2C06%25%20ao%20m%C3%AAs. >. Accessed on 08/30/2020.

Graph VIII – Payroll-deductible credit – Interest per year (%)
Banco Santander (Brasil) S.A., Banco Olé Consignado S.A.



Text: Financial Institution – Interest Per Year (%) – Time
Source: elaborated by the authors.

Table IX – Descriptive statistics – Payroll-deductible credit – Interest per year (%)
Period: 05/2015 to 07/2020
Banco Santander (Brasil) S.A., Banco Olé Consignado S.A.

		Banco Santander (Brasil) S.A.	Banco Olé Consignado S.A.
N		1297	1303
Average		22.2276	25.4932
Median		21.9300	25.3800
Standard deviation		2.98326	4.23819
Range		13.11	15.72
Minimum		15.70	15.91
Maximum		28.81	31.63
Percentiles	25	20.3250	22.7700
	50	21.9300	25.3800
	75	24.9600	29.7100

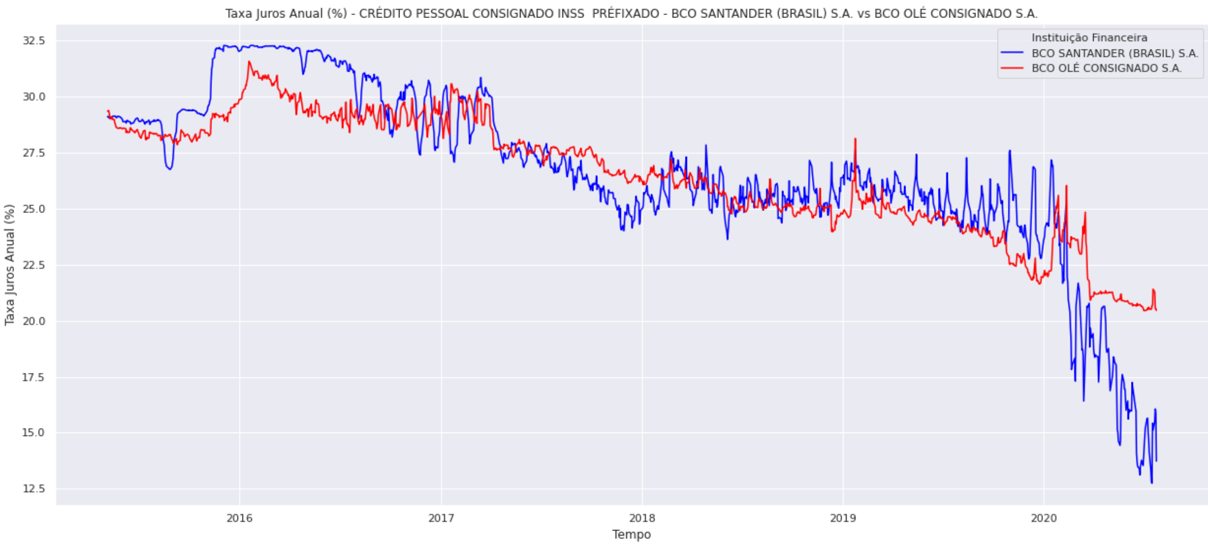
Source: elaborated by the authors.

In graph VIII, from May 2015 to July 2020, we compare the interest charged by Banco Santander (Brasil) S.A. and Banco Olé Consignado S.A. in the "payroll-deductible credit" modality. In this case, Banco Olé Consignado S.A. presented higher interest rates during almost the entire period in which it operated in the series. This is also reflected in the averages and medians, which were both higher for Banco Olé Consignado S.A. by just over three points.

2.4 Payroll-deductible Credit in the Social Security National Institute

Graphs IX and X show the comparisons between annual interest rates of banks and their subsidiaries over time, in the "payroll-deductible credit in the Social Security National Institute" modality[17]. Here, subsidiary banks have slightly lower rates than the central bank's.

Graph IX – Payroll-deductible credit in the INSS – Interest per year (%)
Banco Santander (Brasil) S.A., Banco Olé Consignado S.A.



Text: Financial Institution – Interest Per Year (%) – Time
Source: elaborated by the authors.

[17] This modality includes "payroll-deductible credit operations for retirees and pensioners of the Social Security National Institute (INSS)". Payroll-deductible credit has payroll discouts. Available on: <https://www.bcb.gov.br/content/estatisticas/docs_estatisticasmonetariascredito/glossariocredito.pdf>. Accessed on 07/23/2020. The modality has the highest fixed interest rate cap. Currently, it is fixed by Resolution No. 1,338, from March 17, 2020. Available on <https://www.in.gov.br/web/dou/-/resolucao-n-1.338-de-17-de-marco-de-2020-248563992>. Accessed on 08/30/2020.

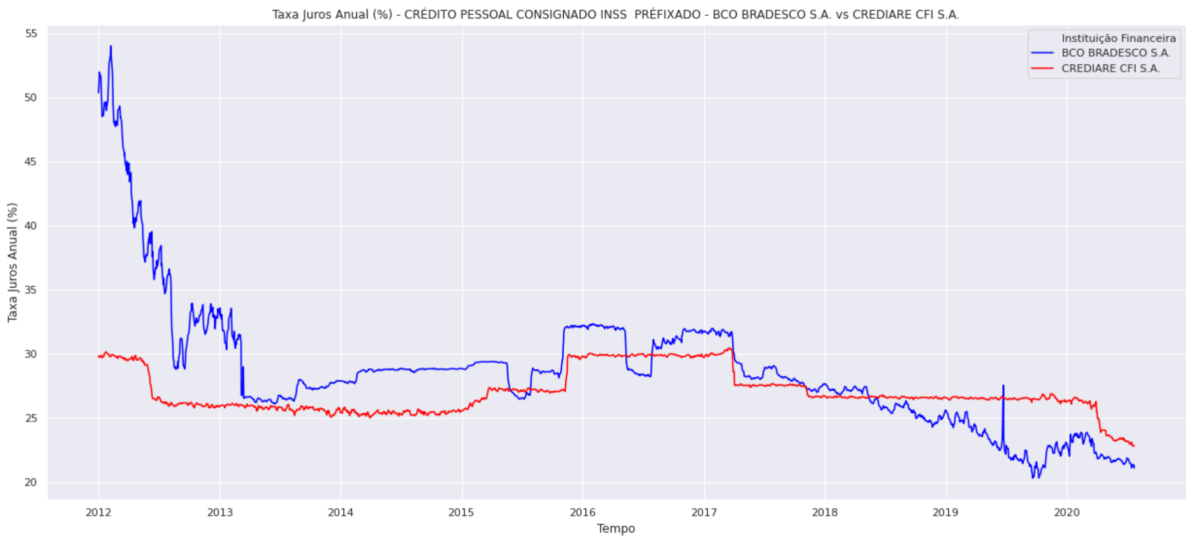
Table X – Descriptive statistics – Payroll-deductible credit in the INSS – Interest per year (%)
Period: 05/2015 to 07/2020
Banco Santander (Brasil) S.A., Banco Olé Consignado S.A.

		Banco Santander (Brasil) S.A.	Banco Olé Consignado S.A.
N		1297	1303
Average		26.7354	26.4856
Median		26.6000	26.5400
Standard deviation		3.82606	2.65415
Range		19.56	11.14
Minimum		12.74	20.45
Maximum		32.30	31.59
Percentiles	25	25.2100	24.7300
	50	26.6000	26.5400
	75	29.3050	28.7300

Source: elaborated by the authors.

In graph XI, from January 2012 to July 2020, we compare the interest rates charged in the "payroll-deductible credit in the INSS" modality by Banco Bradesco S.A. and the finance company Crediare CFI S.A.. Banco Bradesco S.A. practiced higher rates for almost the entire period until the first half of 2018. From the middle of 2018 until the end of the series, Crediare CFI S.A. started to operate with higher interest rates. We note that Banco Bradesco S.A. obtained an average of 28.6751 and a median of 28.2750, while Crediare CFI S.A. obtained, respectively, 26.9653 and 26.5500.

Graph X – Payroll-deductible credit in the INSS – Interest per year (%)
Banco Bradesco S.A., Crediare CFI S.A.



Text: Financial Institution – Interest Per Year (%) – Time
Source: elaborated by the authors.

Table XI – Descriptive statistics – Payroll-deductible credit in the INSS
Interest per year (%) – Period: 01/2012 to 07/2020
Banco Bradesco S.A., Crediare CFI S.A.

		Banco Bradesco S.A.	Crediare CFI S.A.
N		2148	2149
Average		28.6751	26.9653
Median		28.2750	26.5500
Standard deviation		5.16092	1.67502
Range		33.69	7.63
Minimum		20.30	22.80
Maximum		53.99	30.43
Percentiles	25	26.1600	25.8650
	50	28.2750	26.5500
	75	30.8175	27.5300

Source: elaborated by the authors.

In table XI, from January 2012 to July 2020, we compare the interest rates charged in the "payroll-deductible credit in the INSS" modality by Banco Bradesco S.A. and the finance company Crediare CFI S.A.. Banco Bradesco S.A. practiced higher rates for almost the entire period until the first half of 2018. From the middle of 2018 until the end of the series, Crediare CFI S.A. started to operate with higher interest rates. We note that Banco Bradesco S.A. obtained an average of 28.6751 and a median of 28.2750, while Crediare CFI S.A. obtained, respectively, 26.9653 and 26.5500.

3. Credit, Financing, and Investment Societies in the National Financial System Context

The term "finance company" means credit, financing and investment companies (SCFIs)[18]. The SCFIs are a type of financial institution, according to the Article 18, paragraph 1 from Law No. 4,595/64 and, consequently, are part of the Brazilian National Financial System. Other financial institutions include savings banks, credit unions, and others whose description don't allow a specific translation to English. In addition to financial institutions, there are the so-called "similar entities". In this category, there are stock exchanges, insurance, and capitalization companies, among others. Some rules similar apply to both financial institutions and similar entities (Neto, 2014, p. 76-81).

Law No. 4,595/64 defines the architecture of the Brazilian National Financial System. Therefore, the banking discipline in Brazil derives from it. The Brazilian National Monetary Council, its highest body, has a regulatory competence, while the Central Bank of Brazil exercises executive and supervision (Neto, 2014, p. 85). The National Monetary Council aims to "discipline credit in all its modalities and credit operations in all their forms, including the acceptances, the guarantees and the installments of any bonds released by any financial institution". Several resolutions from the National Monetary Council are responsible for the misleading regulatory layers referring to SCFIs.

[18] Finance companies and SCFIs are treated as synonyms.

There are two points to highlight in the SCFI regulation: (1) it is highly dispersed (among different kinds of norms, including laws, ordinances, resolutions etc.), which justifies the synthesis effort in this paper; and (2) not all norms are established directly by the Brazilian State Government: there are internal norms elaborated in the private sphere, expressed in the form of operational scripts and contracts (sometimes difficult to access), whose systemic analysis seems fertile in the understanding of the financial empirical practices, although their description is not the aim of this paper.

Ordinance No. 309, from November 30, 1959, defines and regulates the constitution, operation, and attributions of the finance companies. They are a special type of credit institution and are allowed to lending operations in the medium and long term, while the investment companies are intended to operate in the securities market [19]. The ordinance allows a complementary role of economic dynamism to the SCFIs, as they act similarly to the banks in the lending role. The finance companies are constituted solely in the form of a corporation[20].

The finance companies are distinguished by their performance singularities but both finance companies and banks carry out the private activity of a financial institution, as established in the Article 17 from the Law No. 4,595/64:

> For the purposes of the legislation in force, financial institutions are considered public or private legal entities, whose main or accessory activity is the collection, intermediation or application of their own or third party financial resources, in national or foreign currency, and custody of third party property value.

The doctrine says, according to the Article 17, that the financial activity must cumulatively: (1) raise funds from third parties; (2) transfer through loans; (3) aim profits; and (4) act systematically through time (Neto, 2014, p. 29). While banks are a generic type of credit institutions, SCFIs present a higher degree of specialization (Neto, 2014, p. 67-71; Abrão, 2007, p 20-21).

The 2015 Financial Inclusion Report released by the Central Bank of Brazil reinforces the understanding that finance companies offer credit on a smaller scale when compared to the traditional banking segment, but with greater specialization. Thus, interest rates may be higher, as in cases of niche credit specialization, dealing with higher credit-score risk borrowers (Bacen, 2015, p. 48-49). In 2014, the SCFIs accounted for approximately 7% of credit granted to individuals (Bacen, 2015, p. 98)[21]. Unfortunately, SCFIs didn't receive the attention of new official documents and analysis ever since.

As mentioned, several resolutions make up the normative set that regulates SCFIs. The CMN Resolution 45, from December 30, 1966, regulates the operations that accept foreign exchange guarantees. In turn, the CMN Resolution 1,044, from August 15, 1985, authorizes the transfer of the costs related to the credit granting to consumers (borrowers) and determines all information that must be included in the borrowing contracts. The article 6, III, from the Brazilian Consumer's Protection Code, and the CMN Resolution 3,694, from March 26, 2009 are

[19] Chapter I, II and III of Ordinance No. 309, of November 30, 1959.

[20] Article 25 from the Law No. 4,595/64 and Chapter I, I, from the Ordinance No. 309, from November 30, 1959.

[21] The Central Bank of Brazil (2015, p. 98) explains that "the volume of credit to individuals corresponds to the sum of the outstanding credit agreements balance at the end of the month carried out by savings and loan associations; commercial banks; foreign exchange banks; development banks; investment banks; multiple banks; savings banks; mortgage companies; leasing companies; credit, financing and investment companies; and real estate credit companies".

also appliable both the transactions involving SCFIs and the transactions involving all the others financial institutions, as well as their banking correspondents. This means that the consumer has the right to clear and adequate information about all costs involved in the loan contract.

In addition, the CMN Resolution 1,740, from August 30, 1990, allows SCFIs and multiple banks with a credit, financing and investment portfolio to provide financing for the acquisition of foreign goods[22]. The CMN Resolution 3,954, from February 24, 2011, defines the rules for hiring bank correspondents. The CMN Resolution 4,292, from December 20, 2013, deals with the portability of credit operations from one financial institution to others. These are examples of resolutions that embody the SCFIs regulatory framework with greater or lesser degrees of specificity.

Finance companies have a network of intermediaries in the relationship with their customer, the so-called bank correspondents. Banking correspondents are companies, individual entrepreneurs, or associations defined by the Law No. 10,406, from January 10, 2002 (the Brazilian Civil Code). They work as notary and registry service providers for banks and all financial institutions, according to the Law No. 8,935, from November 18, 1994. Their regulation include the Article 8 and the items of the CMN Resolution 3,954, from February 24, 2011. Such activities can be summarized in the idea of a positive impact of a more direct relationship with the consumers/borrowers.

It is clear that the bank correspondents are different from the financial institutions they represent and under whose guidelines they operate, although these are responsible for the customer service provided locally. Therefore, bank correspondents are nothing more than agents providing services to financial institutions. Nelson Nery (2014, p. 16) states that:

> The banking correspondent is prohibited from exercising any private activity from the financial institutions, which is the reason why they are not part of the [Brazilian] National Financial System, being exempted from having authorization from the Central Bank [of Brazil] to operate.

We do not completely agree with this statement, as the Article 18 of the CMN Resolution 3,954, from February 24, 2011, recognizes the possibility of correspondent contracts in which "the parties are financial institutions or institutions authorized to operate by the Central Bank of Brazil". However, we understand the statement is somehow correct if we consider that most bank correspondents are individual entrepreneurs that work alone.

In a big country as Brazil, banks correspondents were originally created to allow the geographical diffusion of financial services without the cost of installing and maintaining the utilities of a regular bank. Correspondents may decongest bank branches, reduce infrastructure costs, and allow access to new customer niches (Mas & Siedek, 2008, p. 8-9). Besides, from a geographical point of view, correspondents spatially reorganize financial service networks (Dias, 2017, p. 391).

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[22] Article 1 from CMN Resolution No. 1,740, from August 30, 1990.

The original aims were not implemented as planned, as the fair away areas of Brazil remain without bank correspondents, while they have intensive activities in the urban and central areas, alongside conventional banks. Both banks and SCFIs make significant use of the intermediation provided by these agents. In 2014, banks stood out for contracting 92.6% of correspondent service points in Brazil, while SCFIs contracted 17.5%. Credit unions and SCMEPP do only represent a minor demand of their services (respectively 1.6% and 0.1%) (Bacen, 2015, p. 51)[23].

The correspondent network is paralleled to the franchise structure, configuring two complementary strategies.

> Banking correspondents cannot be franchised, but franchisees can exist by the tens or hundreds, as long as they are not bank correspondents. Thus, in addition to correspondents, finance companies also use the franchise structure aiming at expanding their service networks. Some of the groups that achieve remarkable permeability in the national territory do so through the support of a local franchisee (Colluci Neto et al., 2020, p. 70).

Alongside these two tools of potential expansion and capillarity of the credit supply, there are impressive control relations between SCFIs and banks, as they belong to the same conglomerates. Such a finding is not negligible. The finance companies under a banking conglomerate accounted for 87% of the credit granted in this segment in 2014, while only 13% of independent financial institutions (Bacen, 2015, p. 99-100).

4. The Shareholder Profile of Finance Companies in Brazil

We classified all finance companies operating in Brazil in four categories, to assess the shareholding profile of finance companies and other agents, and also question whether they are under conglomerates or not: (i) finance companies linked to one of the five major banks; (ii) finance companies linked to banking conglomerates, except those of the five major banks; (iii) finance companies linked to non-banking economic groups; (iv) independent finance companies.

The first category refers to the SCFIs linked to the five largest banking conglomerates in Brazil, considering both the number of clients and the volume of savings: Itaú-Unibanco, Bradesco, Banco do Brasil, Caixa Econômica Federal and Santander[24].

In the 2018 Banking Economics Report, the Central Bank (2018, p. 144) informs that the Concentration Ratio of the Biggest Five (RC5) was 84.8% in credit operations and 83.8% % in total deposits in December 2018, considering the commercial banking segment[25]. If the banking and non-banking segment is considered in the same period, RC5 drops to 70.9% in credit operations and 78.4% in total deposits, which are still high (Bacen, 2018, p. 144).

The Central Bank (2018, p. 145) explains that "because of the commercial banking segment relevance in the broader set considered, the concentration indicators are determined, in large part, by this segment concentration".

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[23] As there is no need for exclusivity between the contracted correspondent and the contracting finance company, the percentage values may exceed 100% due to double counting.
[24] See <https://www3.bcb.gov.br/ifdata/ >. Acessed on 26/08/2021.
[25] The commercial banking segment comprises commercial banks, the multiple ones with a commercial portfolio and savings banks (Bacen, 2018, p. 144-145).

Although there was a small reduction in the sector concentration between 2016 and 2018, driven by a smaller participation of the local federal public banks (Banco do Brasil and Caixa Econômica Federal) (Bacen, 2018, p. 145), there is still a very relevant degree of concentration.

In December 2018, considering credit operations in the commercial banking segment, the Herfindahl-Hirschman Normalized Index (IHHn) [26] was 0.1630, showing a moderate concentration (Bacen, 2018, p. 144).

The second category consists of those SCFIs linked to banking conglomerates, with the exception of the Biggest Five. As a result, it is a residual group that includes the other banks.

The third category is the one from finance companies linked to commercial or industrial groups, but not to a banking conglomerate. These economic groups can be large retailers or vehicle manufacturers that maintain SCFIs to finance their own products[27], for example. There is nothing to prevent financial companies from connecting with banks and other commercial or industrial groups at the same time. In this case, our classification places them in the first or second category, depending on the bank.

Finally, the fourth category is composed of independent SCFIs, understood, for the purposes of this research, by the absence of banking, commercial or industrial economic groups participation. The shareholders of these finance companies are only individuals or individuals and holding companies. These holdings, when they exist, are employed as a capital organization form, and are controlled by individuals or investment funds.

The data describing shareholder's composition was provided by the Central Bank of Brazil on September 13, 2019, under request based on the Access to Information Law (Law No. 12,527, from November 18, 2011). From the data analysis, it was possible to organize Table XII[28].

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[26] The Central Bank (2018, p. 144) explains that the "the Herfindahl-Hirschman index (IHH) is used by national and international competition authorities as an accessory instrument in the economic concentration levels assessment. In its normalized version, the IHHn, the index is obtained by adding the square of the participation in each financial institution (IF)'s decimal form in the market considered: IHHn = (IF1) 2 + (IF2) 2 + ... + (IFj) 2, resulting in a number between zero and one. Based on the *Guide for Analysis of Concentration Acts*, released by Correspondence 22,366, from April 27, 2012, the BCB considers that markets that register values corresponding to the IHHn between 0 and 0.1000 are considered of low concentration; above 0.1000 to 0.1800, of moderate concentration; and above 0.1800 to 1, of high concentration".

[27] See <https://www.bcb.gov.br/pre/composicao/financeiras.asp?frame=1>. Accessed on 05/26/2020.

[28] Exceptional inaccuracies could arise from the presence of intermediary companies (holdings, for example) among the SCFIs and the main agents of their controlling groups in the shareholding composition data. In order to avoid such inaccuracies, the shareholding compositions of these intermediary agents (holding companies or others) were also analyzed, based on data also provided by the Central Bank. Still, the analysis was occasionally complemented by surveys on the SCFIs' websites. Additionally, regarding the few publicly traded SCFIs, it was possible to search on the B3 website: <http://www.b3.com.br/pt_br/produtos-e-servicos/negociacao/renda-variavel/empresas-listadas.htm>. Accessed on 05/27/2020.

Table XII – The Shareholder Profile of Finance Companies

Category	Finance Companies	Number of Companies	Percentage[29]
Finance companies linked to one of the five major banks	Aymoré CFI S.A. CrediareS.ACFI Financeira Itaú CBD S/A CFI Luizacred S.A. SCFI Portoseg S.A. CFI	5	8.77%
Finance companies linked to banking conglomerates, except those of the five major banks	Agibank Financeira S.A. CFI BRB CFI S.A. BV Financeira S.A. CFI CCB Brasil CFI Cifra S.A. CFI Crefisa S.A. CFI Financeira Alfa S.A. CFI Mercantil do Brasil Financeira S.A. CFI Sofisa S.A. CFI	9	15.79%
Finance companies linked to non-banking economic groups	Agoracred S.A. SCFI BMW Financeira S.A. CFI Golcred S.A. CFI Grazziotin Financiadora S.A. CFI Midway S.A. CFI Pernambucanas Financiadora S.A. CFI Realize CFI S.A Santinvest CFI Sax S.A. CFI Todescredi S.A. CFI	10	17.54%
Independent finance companies	Amaggi S.A. CFI Atria S.A. CFI Avista S.A. CFI BeckerFinanceira S.A. CFI BiorcFinanceiraCFI S.A. BRK S.A. CFI Caruana S.A. SCFI Centrocred S.A. CFI CreditáS.A. CFI Dacasa Financeira S.A. SCFI Direção S.A. CFI Estrela Mineira CFI S/A Facta Financeira S.A. CFI Finamax S.A. CFI Finansinos S.A. CFI Gazincred S.A. SCFI HS Financeira S.A. CFI Jbcred S.A. CFI Kredilig CFI Lebes Financeira S.A. CFI Lecca CFI S.A. Negresco S.A. CFI NU Financeira S.A. CFI Omni S.A. CFI Parati CFI S.A. Portocred S.A. CFI Santana S.A. CFI Senff S.A. CFI Sinosserra Financeira SCFI Socinal S.A. CFI Sorocred CFI S.A. StaraFinanceira CFI Via Certa Financiadora CFI	33	57.89%
Total		57	100%

Source: elaborated by the authors.

The data reveals that from a total of 57 SCFIs, 14 are linked to banking institutions, which corresponds to approximately 24.56%. Of this set, five (8.77% of total SCFIs) are linked to some of the five largest banking conglomerates in the country, while nine (15.79% of total SCFIs) are linked to other banks. The five finance companies under the category connected to the five largest banking conglomerates does not imply a proportional distribution of SCFIs among them. In fact, Itaú-Unibanco participates in three finance companies: Financeira Itaú CBD S/A CFI, Luizacred S.A. SCFI (in which Magazine Luiza S.A. also participates) and Portoseg S.A. CFI. On the other hand, Banco do Brasil and Caixa Econômica Federal don't have any finance companies within their structures. Thirty-three financial companies (57.89%) are in the independent category.

[29] The percentage reflects the number of institutions regarding the total, and not their respective market shares.

In 2014, 87% of the credit granted by SCFIs came from finance companies linked to some *banking conglomerate*[30]. In 2011, this number reached 97% (Bacen, 2015, p. 99-100)[31]. Although quantitatively higher, independent SCFIs[32] account for a small portion of the credit supply.

Finally, 10 finance companies are linked to non-bank economic groups, corresponding to 17.54% of the total. Several large commercial groups, such as Lojas Renner S.A., Lojas Riachuelo S.A., Marisa Lojas S.A., Lojas Colombo S.A. and Magazine Luiza S.A. maintain SCFIs as a way of increase their profits and build customer's fidelity. "It looks like a store, but it's a bank" was the title of a press article in 2019[33]. Credit is also a product explored by these commercial groups.

The creation of an SCFI is only one of the possible ways for retailers to reach the credit market. According to Saltorato et al. (2016, p. 91), retailers who intend to use the credit cards offer and other financial services as a new form of revenue generation may opt for a high degree of vertical integration, internalizing the management of financial products. In turn, companies that aim to share risks, costs and revenues related to the long-term financing of their sales by means of credit can enter joint ventures with traditional finance companies and create holdings for the financial services management. In addition, retailers whose main objective is customer's loyalty can enter partnerships with finance companies and leave credit management under their responsibility. Intermediate versions between these categories are also possible. Based on these considerations, Saltorato et al. (2016, p. 92) construct a taxonomy of the organizational forms of cooperation between several retail companies and financial institutions in Brazil.

Therefore, the control of an SCFI by a commercial group represents a verticalized form of cooperation between the retail market and the financial sector. It describes the close relation between these sectors, so that the financial dynamic overlaps with the retail operations. Credit represents an increasingly significant source of revenue for commercial groups that were originally non-banking ones (Saltorato et al., 2016, p. 98-99).

5. Conclusion

We summarized the discussions presented and their respective conclusions in three sections:

(i) In section one, we have compared the interest rates charged by several daughter companies (SCFIs or subsidiary banks) with the interest rates charged by the same holding's main banks. We have done so in different types of loans: the "non-payroll personal credit", "credit card revolving credit", "payroll-deductible credit" and "payroll-deductible credit in the Social Security National Institute". In the "non-payroll personal credit" and "payroll-deductible credit" modalities, we have verified that subsidiary institutions' interest rates are usually higher than the interest rates from the main banks. In the "credit card revolving credit" modality, the subsidiaries charged higher interest rates in some comparisons, while the main institutions

[30] This percentage excludes the amounts offered by SCFIs linked to commercial or industrial groups.

[31] These statistics only consider credit operations that are identified in the Central Bank's Credit Information System (SCR).

[32] In the 2015 Financial Inclusion Report, the Central Bank establishes a broader definition of "independent finance companies", covering any SCFIs not linked to banks. Our definition of "independent finance companies" is more restricted, as it moves away from SCFIs linked to commercial or industrial groups.

[33] Available on <https://www.istoedinheiro.com.br/parece-loja-mas-e-banco-4/>. Accessed on 05/29/2020.

charged higher interest in others. We point to the anticipation of the payment of due purchases, which represents an important aspect of the two-sided market of credit cards and can explain interest rates depending on other elements than borrowers' credit score. The use of payroll-deductible credit cards as a way of exceeding the limit of 30% of payroll-deductible debt by 5% is also a possible explanation for that phenomenon. In the "payroll-deductible credit in the Social Security National Institute", there was little variation in the interest rates between the subsidiary and the main institutions, although the latter were slightly higher. From the data set, we have verified higher interest rates for the SCFIs and daughter companies when compared to the same conglomerate main banks. It probably reflects the credit specialization in certain niche markets. However, we have also found evidence of the opposite: situations in which major banks charged higher interest rates than their daughter companies. Therefore, although part of the data indicates support for the hypothesis that financial and subsidiary banks specialize in customers with high default risks and charge higher interest rates than the main bank within the same economic holdings, we also present contrary evidence, which inspires further research to confirm or not the explanatory hypotheses presented.

(ii) In section two, we have discussed the set of resolutions that regulate the financial institutions in Brazil. We highlighted the centrality of banking correspondents and franchises in the credit offer by SCFIs. Moreover, we observed that finance companies offer credit on a smaller scale when compared to the traditional banking, but with greater specialization. Specialization can be seen as a distinctive feature between finance companies and banks. This does not prevent banks and finance companies from joining economic groups.

(iii) In section three we have presented the shareholding profile of financial companies in Brazil. We have discovered that although independent SCFIs are quantitatively higher, they have a smaller market share. In 2014, 87% of the credit granted by SCFIs came from finance companies under some banking conglomerate (Bacen, 2015, p. 99-100). We have also noted that 10 financial companies are linked to non-bank economic groups, corresponding to 17.54% of the total and expressing the increase of finance services for retail stores.

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