InterSciencePlace

International Scientific Journal – ISSN: 1679-9844
Nº 3, volume 18, article nº 02, July/September 2023
D.O.I: http://dx.doi.org/10.6020/1679-9844/v18n3a2
Accepted: 10/04/2022 Published: 20/09/2023

BANK RELATIONSHIP IN TIMES OF COVID-19: A LITERATURE REVIEW

RELACIONAMENTO BANCÁRIO EM TEMPOS DE COVID-19: UMA REVISÃO DE LITERATURA

Gabriel José Barthman
Doutorando em Administração de Empresas pela Fundação Getúlio Vargas (EBAPE)
gabriel.barthman@uvv.br

Hercules Vander de Lima Freire
Doutorando em Administração pela FGV
hercules.freire@uvv.br

Rafael da Silva Galveias Oliveira
Doutorando em Administração pela FGV
rafael@uvv.br

Abstract – This study aims to briefly review the literature on the banking relationship in usual times and adversity times arising from the global health crisis of COVID-19. We begin discussing the relevance of financial intermediation services for the promotion of economic activity and the challenges of financial institutions in granting credit. Then, we discuss how the banking relationship emerges as a determinant of breaking the information asymmetry between creditors and borrowers, resulting in credit agreements with lower interest rates, greater capital volume, and lower requirements for guarantees. The theme has aroused the interest of researchers and, despite being abundant, even though most studies highlight the benefits of the banking relationship, the literature presents divergences on this subject. Some authors dispute the positive effects of the relationship, emphasizing the creation of an informational monopoly by the creditor that may, at an opportune moment, use the bargaining power to practice stricter contract terms

and higher interest rates. Most existing studies that address the banking relationships issue concentrate their analyzes on regular times. However, it is relevant to investigate the behavior of agents involved in credit operations during crises, times when, as a rule, borrowers are more fragile and in need of access to credit. The appetite of researchers to investigate the effects of the COVID-19 crisis on the financial market and in empirical studies related to the credit market is growing. Therefore, we conclude by describing the evidence found in recent research regarding the impacts of the pandemic on economic activity, the labor market, income, household consumption, and the financial market.

Keywords: information asymmetry; bank credit; banking relationship.

Resumo – Este estudo tem como objetivo fazer uma breve revisão da literatura sobre o relacionamento bancário em tempos normais e, também, em época de adversidades, provenientes da crise sanitária mundial do COVID - 19. Iniciamos com uma discussão da relevância do serviço de intermediação financeira para o fomento da atividade econômica e dos desafios das instituições financeiras no processo de concessão de crédito. Em seguida, discutimos de que forma o relacionamento bancário surge como um determinante da quebra de assimetria de informação entre credores e mutuários, resultando em contratos de crédito com taxas de juros menores, maior volume de capital e menor exigência de garantias reais. O tema tem despertado o interesse de pesquisadores e apesar de abundante, ainda que a maioria dos estudos destaque os benefícios do relacionamento bancário, a literatura apresenta divergências a respeito deste assunto. Alguns autores contestam os efeitos positivos do relacionamento, destacando a criação do monopólio informacional por parte do credor que poderá em momento oportuno, se valer do poder de barganha para praticar termos de contrato mais rígidos e taxas de juros majoradas. A grande maioria dos estudos existentes que abordamos o tema relacionamento bancário, concentram suas análises em tempos normais. Entretanto, é relevante investigar o comportamento dos agentes envolvidos em operações de crédito durante as crises, momentos em que, via de regra, os tomadores de recursos se encontram mais fragilizados e necessitados de acesso ao crédito. O apetite dos pesquisadores em investigar os efeitos da crise do COVID-19 no mercado financeiro e em estudos empíricos relativos ao mercado de crédito, está crescendo, portanto, finalizamos descrevendo as evidencias encontradas em pesquisas recentes, relativas aos impactos da pandemia na atividade econômica, mercado de trabalho, renda, consumo das famílias e mercado financeiro.

Palavras-chave: assimetria de informação; crédito bancário; relacionamento bancário.

1. INTRODUCTION

Financial intermediation is a service that seeks to maximize the allocation of resources contributing to the economic performance of a region since access to credit encourages economic activities while reducing poverty and, consequently, income inequality (GREENWOOD; JOVANOVIC, 1990; BECK et al., 2004; LEVINE; ZERVOS, 1998). The studies by King and Levine (1993) and Levine et al. (2000) empirically demonstrate the existence of a solid and positive relationship between the growth of a nation and the maturation of its financial market through liquidity provision (BERGER; SEDUNOV, 2017) and optimization of credit allocation (JAYARATNE; STRAHAN, 1996). Gomez-Gonzalez and Reyes (2013) find evidence that not only credit but also the number of funding sources is essential for the survival of small and medium-sized companies.

However, Akiama (2008) demonstrates that, as in other transactions in the financial market, it is the nature of credit operations to carry risk vectors, with the risk of default (or default) being the most worrying for financial institutions. Thus, managers of banking and/or non-banking institutions have the role of optimizing cash flow, pricing contracts, and above all, acting proactively in managing credit risk and setting up provisions.

As the process of granting credit is an operation naturally surrounded by information asymmetry, financial institutions are exposed to the risk of adverse selection, a situation in which credit can be granted to a distressed borrower or even to a customer outside the creditor's profile (BOOT, 2000; BHARATH et al., 2011).

Both from a theoretical perspective and an empirical perspective, several researchers have made efforts to study the nature and fundamentals of credit operations, seeking to understand in depth the determinants that allow access to the various lines of granting resources and, at the same time, understand how the borrower's specific information, obtained through a banking relationship, impacts the decision-making of the creditor institution when releasing capital (KYSUCKY; NORDEN, 2016).

Modern literature presents two essential factors that must be considered in the credit granting analysis process moral hazard and adverse selection. Regarding the concern with moral hazard, several studies provide empirical evidence that the presence of guarantees in contracts inhibits the occurrence of opportunistic practices by borrowers, thus increasing the soundness of the operation and reducing the chance of non-compliance with the contract.

As for the second and no less important factor that deserves attention in credit contracts, adverse selection, the literature has focused on the study and search for evidence of the determinants that lead to the reduction of information asymmetry. One of the objects of study that have appeared as a potential determinant of reducing information asymmetry is the time and intensity of the banking relationship.

However, we have identified two different schools in the literature that address the benefits and losses that the time and intensity of the banking relationship can bring to the agents involved in credit transactions. One of the currents warns that the increase and intensity of the borrower's relationship time can transform the asymmetry into private information to which only a specific creditor has access. In this way, while initially there may be some advantages for borrowers, such as access to lower interest rates, over time, given the monopoly of information, borrowers may become hostages to a single creditor who turns this into a bargaining advantage in his favor (SHARP, 1990; DEGRYSE; ONGENA, 2008).

Other authors, in their empirical findings, point out that the increase in time and intensity of the banking relationship are determinants of increased benefits to borrowers and creditors, such as reducing information asymmetry (BHARATH et al., 2011; KYSUCKY; NORDEN, 2016; BOOT; THAKOR, 1994), interest rate reduction (BHARATH et al., 2011), collateral requirement reduction (BERGER; UDELL, 1995), default reduction (PURI; ROCHOLL; STEFFEN, 2017) and volume increase of credit granted in operations (BHARATH et al., 2011; KYSUCKY; NORDEN, 2016).

The debate regarding the quality of credit, management, and access to private information is present at the center of the recent discussion. As explained above, several authors have found empirical evidence regarding the benefits and possible harm of one of the determinants of access to credit, the banking relationship.

2. LITERATURE REVIEW

2.1. Relationship and bank credit

The discussion about the granting credit process, monitoring, and access to private information has become a relevant topic in the academic literature. Studies related to investigating the nuances of relationship loans have aroused the interest of several authors in the last 30 years. (BERGER et al., 2022). As a central point of reflection, how to reduce the risk of default based on ex-ante or ex-post alternatives for granting loans (PURI; ROCHOLL; STEFFEN, 2017).

Default or lack of liquidity in contracts can arise, according to Boot (2000), due to two different factors; budget constraint or opportunism on the part of debtors. The latter, also defined as moral hazard, stands out the understanding about the little dissemination of information that allows a debtor to assume an unwanted or unforeseen behavior, taking the operation's cash flow for their benefit (BHARATH et al., 2011; PURI; ROCHOLL; STEFFEN, 2017).

A mechanism often used by financial institutions to defend the loan portfolio is to hedge transactions with real guarantees. The rationale is that the borrower may lose the asset if he or she fails to comply with the terms of the loan agreement, thereby reducing opportunism and moral hazard. At the same time, collateralized loan transactions increase lenders' bargaining power with respect to the contract, strengthen their position in the face of potential renegotiation, and become a viable option to discourage undesirable behavior by their customers (TRUNK, 2000). Offering collateral for credit transactions helps reduce asymmetric information and positively signals the quality of the borrower (CHAN; KANATAS, 1985).

In this line, Berger and Udell (1990) point out that there is a two-fold association between default risk and collateral through guarantees: the observed risk paradigm - whose premise is that financial institutions have enough information on borrowers to classify them with regard to credit risk, conditioning the release of transactions with higher risk to guarantees being pledged; and the paradigm of private information – in which, due to the high level of information asymmetry, the

identification of risk is perceived through the predisposition of borrowers to opt for credit lines with low collateral requirements and higher interest rates (BESTER, 1985).

Rodrigues et al. (2004), when analyzing data from the Central Bank of Brazil's SCR, find empirical evidence that these assumptions are valid for Brazil. The conclusion is that, given the non-existence or low quality of the guarantee, the credit granted will be limited and costly (BERKOWITZ, 2002).

Both from a theoretical and empirical point of view, many scholars are dedicated to researching the nuances and elements of credit operations, trying to obtain a deep understanding of the determinants that allow access to resources and, in addition to guarantees, the time and intensity of the banking relationship have stood out in the modern literature on financial intermediation as an instrument capable of minimizing the risk of default. These studies, for the most part, are intended to understand how the borrower's specific information impacts the decision-making of the creditor institution when releasing bank capital (BERKOWITZ, 2002; BHARATH et al., 2011; BOOT, 2000; PURI; ROCHOLL; STEFFEN, 2017; KYSUCKY; NORDEN, 2016).

Boot (2000) defines a banking relationship as the provision of financial services by a financial intermediary that: (i) invests in obtaining specific customer information, commonly exclusive in nature, and (ii) evaluates the profitability of these investments through multiple interactions with the same customer over time and/or across products. Lenders use the longevity of the relationship with customers as a rich source of information that helps to break the information asymmetry (BOOT; THAKOR, 1994). In Brazil, the monetary authority allows credit granted by non-banking institutions, and therefore, the term banking relationship has been extended to credit, financing, and investment institutions (popularly called “financiers”). Thus, the term banking relationship is synonymous with an intermediation relationship.

Kysucky and Norden (2016), when analyzing the relationship between relationship loans and contractual terms in empirical studies published in Europe, the United States, Asia, and Latin America, observed that the production of private information is the most relevant benefit from the banking relationship.

When testing the hypothesis that more intense relationships between creditors and borrowers are beneficial to the borrower, they found evidence that longer bank

relationships favor access to a greater volume of capital, lower interest rates, and lower collateral requirements. In addition, the result of the meta-analysis carried out by the authors points out that in countries such as the United States, Argentina, and Taiwan, where the financial market is more competitive, the benefits to borrowers are even higher compared to other countries with more concentrated banking systems.

Chandera et al. (2020) contribute to the literature by obtaining evidence that the length of the banking relationship is a fundamental condition for reducing the bank spread while allowing higher recurrence in the use of credit products by Indonesian borrowers. Loukil and Jarboui (2016) presented evidence that the intensity of the banking relationship is a relevant factor in the granting and management of credit, whereas, in the Tunisian market, the length of the relationship is not significant. While Zailani et al. (2013) teaches us that the banking relationship combined with commercial strategies improves not only credit quality but also the degree of satisfaction of borrowers with the financial institution.

A financial institution that strengthens relations with the debtor, such as house banks, benefits from the relationship time, as access to exclusive information points to a comparative advantage concerning regular creditors. In this case, corporate banks are the first creditor (BERGER; UDELL, 1990, ELSAS; KRAHNEN, 1998; BOOT, 2000).

There are advantages in maintaining the relationship for borrowers, who not only have access to liquidity insurance in times of adversity but also manage to obtain greater availability in credit lines with lower spreads compared to companies with little relationship (GOMEZ-GONZALEZ et al., 2013). The intense relationship between the agents allows the practice of a more flexible credit policy, where both benefit from breaking informational asymmetry (ELSAS; KRAHNEN, 1998). Part of the literature understands that the practical implications of the banking relationship bring measurable advantages to creditors and debtors and can be an instrument encouraged by monetary regulators to cool the spread (CHANDERA; SETIA-ATMAJA; LUKAS, 2020).

Chang et al. (2014) confirmed the positive effects and strong correlation between the banking relationship and the reduction of defaults on credit operations in Chinese state-owned banks. The results obtained by Berger and Udell (1995), when studying lines of credit aimed at small American companies, suggest that the length

of the relationship is indicative of the quality of the borrower, favoring the practice of lower interest rates and lower requirements for guarantees.

In Spanish contracts, Jiménez, Salas, and Saurina (2006) observed that the length of the relationship reduces the need for the loan to be collateralized. While Mourad, Schiozer, and Santos (2020), when analyzing more than one million restructured loans, found evidence that there is a strong and positive relationship between the volume of capital and the probability of contracts being canceled and that the greater the difficulty in executing the guarantees, the greater the tolerance with the borrower.

Although most studies point to the positive effects of the relationship, the literature differs on this subject. Sharpe (1990) and Rajan (1992) contest the longevity of the banking relationship since this is connected to the creation of an informational monopoly by the creditor, directly impacting the ferocity of competition between financial institutions. Thus, the bargaining power obtained in informational asymmetry translates into the possibility of interest rate discrimination by the creditor.

This position is complemented by Yin and Matthews (2017), whose work showed that small and medium-sized companies are more likely to maintain a unidirectional banking relationship - that is, with only one creditor - while large companies employ multi-banking relationships to use competition between institutions to benefit from a possible reduction in interest rates.

2.2. Covid-19 Pandemic

Since the Second World War, humanity has not experienced a global collapse as expressive as that associated with COVID-19. The speed at which the pandemic has escalated has demonstrated all too the intrinsic dangers of an increasingly connected world (BERGER et al., 2022).

In this context, labor (COIBION et al., 2020b) and stock markets (BAKER et al., 2020a; FAHLENBRACH et al., 2021) are strongly affected. Previous research also reveals harmful implications resulting from the pandemic on the level of household consumption (BAKER et al., 2020b; COIBION et al., 2020a) and on economic activity in its entirety (LUDVIGSON et al., 2020).

The COVID-19 pandemic caused a global health crisis that quickly contaminated the markets, fostering the emergence and proliferation of a moment of far-reaching economic tribulation, with particularly more harmful consequences for emerging countries (HEVIA; NEUMEYER, 2020). While the global GDP grew by 5.7% in 2021, in 2020, the world economy recorded a drop of 3.4%. According to data from Johns Hopkins University, until 12/31/2021, 288.70 million confirmed cases and 5.44 million deaths from the coronavirus were recorded.

Even though the first rumors about the virus emerged in the last days of 2019, it was in mid-March 2020 that the pandemic effects hold of the markets, triggering a series of restrictive circulation measures that would affect the economy as a whole.

The spread of contagion by the SARS-CoV-2 virus has forced governments to enact numerous restrictive measures, such as social isolation and restrictions on the operation of businesses considered non-essential. These actions, however, have unfavorable economic implications for companies and families (DEMIRGÜÇ-KUNT et al., 2021; PARK; SHIN, 2021; HASAN et al., 2020).

The logic of the relationship between the health crisis and economic activity is that the measures taken by individuals to reduce consumption and work tend to slow down the contagion rate, but with potentially harmful effects on the market (EICHENBAUM et al., 2021). Fernandes (2020) finds that the pandemic negatively impacted global supply and demand, a conclusion similar to the findings of Chen et al. (2021) when studying the impact on consumption in the Chinese economy.

In this way, a hostile scenario is designed for the economic and financial health of the organizations that simultaneously experienced the increase in costs and the decline in revenues. The families lived with the inflection of the labor market and a drop in income, a scenario conducive to reducing the payment capacity of agents, increasing the chances of defaulting (OZILI; ARUN, 2023; BARUA, 2021; BARTIK et al., 2020; PARK; SHIN, 2021). In addition, Hasan et al. (2020), document that throughout the pandemic, companies sought help through lines of credit, which generally showed an increase in the cost of capital.

It is assumed that the financial market, especially the credit market, can play a leading role in cushioning the economic shock by providing credit lines and loans (ACHARYA; STEFFEN, 2020; BORIO, 2020). However, financial institutions are also

expected to be affected, leading to an increase in insolvent loans and lower revenues and profits (BECK; KEIL, 2021).

Additionally, Demirgüç-Kunt et al. (2021) teach us that as banks exhaust their established ballasts, they tend to suffer the degradation of their assets, putting the stability of the system at risk.

The interest of authors in investigating the impacts of the COVID-19 crisis on the financial market and in empirical studies related to the credit market is growing. Acharya and Steffen (2020), Chodorow-Reich et al. (2020), Li and Strahan (2021), suggest that credit lines offered in the financial market have suffered a significant reduction, while Horvath et al. (2021), find that consumer credit is strongly affected, and Norden et al. (2021), find strong evidence that the COVID-19 pandemic has an intense unfavorable effect on the Brazilian credit market.

In times of adversity and information asymmetry, it is common for bank runs to occur, agents fearful of the not yet measurable consequences seeking liquidity, contributing to the emptying of resources in the coffers of financial institutions. Studies indicate that banks with greater exposure to withdrawals from large companies are more cautious in offering long-term credit (GREENWALD; KRAINER; PAUL, 2020). Kapan and Minoiu (2021), however, teach us that banks with a large volume of operations signed with industry sectors most vulnerable to the impacts of COVID-19 have shown a slowdown in lending other research, such as (ÇOLAK; OZTEKIN, 2021) also found evidence of reduced loan growth and increased interest rates (HASAN; POLITSIDIS; SHARMA, 2020).

Berger et al. (2021), using the COVID-19 crisis as an almost natural experiment, investigated whether resource borrowers with higher banking relationships enjoyed more or fewer facilities compared to common borrowers in adverse times. When analyzing the contractual terms, they identified that the relationship borrowers did not obtain any advantages in relation to the others and that the banks are not friends in times of need.

3. CONCLUSION

Exploring the nuances of relationship credit is a growing area in the modern financial intermediation literature. Recent research provides relevant evidence on the impact of the banking relationship on the credit market. Despite the authors' efforts and the extensive literature on the subject, there is still no consensus on the benefits and potential harms to borrowers relative to lenders.

A larger volume of research teaches us that the time and intensity of the relationship is a determinant for breaking the information asymmetry and thus favoring the negotiation of the terms of the credit agreement by the borrowers, resulting in lower interest rates, lower demand for actual guarantees and access to a greater volume of capital. However, the counterpoint presented in some studies is that the relationship can make the borrower hostage to only one creditor, who will have a monopoly on information, thus being able to benefit when negotiating more strict contractual terms.

In an area where the evidence is mixed, it is opportune to advance in understanding the effects of the banking relationship on the credit market, demystifying the actual impact on the relationship between creditors and borrowers and also testing whether the previous findings are valid in times of crisis.

REFERENCES

ACHARYA, VV; STEFFEN, S. The risk of being a fallen angel and the corporate dash for cash in the midst of COVID. **The Review of Corporate Finance Studies**, v. 9, n. 3, p. 430-471, 2020.

AKIAMA, SR. **Probabilidade de inadimplência de grandes empresas no sistema financeiro nacional**. 2008. Tese (Doutorado em Ciencias Contábeis) - Universidade de São Paulo, São Paulo, 2008.

BAKER, SR et al. How does household spending respond to an epidemic? Consumption during the 2020 COVID-19 pandemic. **The Review of Asset Pricing Studies**, v. 10, n. 4, p. 834-862, 2020b.

BAKER, SR et al. **The unprecedented stock market impact of COVID-19**. National Bureau of Economic Research, 2020a.

BARTIK, AW et al. **How are small businesses adjusting to COVID-19? Early evidence from a survey**. National Bureau of Economic Research, 2020.

BARUA, S. Understanding coronanomics: The economic implications of the COVID-19 pandemic. **The Journal of Developing Areas**, v. 55, n. 3, p. 435-450, 2021.

BECK, T.; DEMIRGUC-KUNT, A.; LEVINE, R. **Finance, inequality, and poverty**: Cross-country evidence, 2004.

BECK, T.; KEIL, J. **Hare banks catching corona?** Effects of COVID on lending in the US. SSRN, 2021.

BERGER, AN et al. Is a Friend in Need a Friend Indeed? How Relationship Borrowers Fare during the COVID-19 Crisis. **Kelley School of Business Research Paper**, n. 2021-01, 2022.

BERGER, AN; SEDUNOV, J. Bank liquidity creation and real economic output. **Journal of Banking & Finance**, v. 81, p. 1-19, 2017.

BERGER, AN; UDELL, GF. Collateral, loan quality and bank risk. **Journal of Monetary Economics**, v. 25, n. 1, p. 21-42, 1990.

BERGER, AN; UDELL, GF. Relationship lending and lines of credit in small firm finance. **Journal of Business**, v. 68, n. 3, p. 351-381, 1995.

BERKOWITZ, J.; WHITE, MJ. Bankruptcy and small firms' access to credit. **NBER Working Paper**, n. 9010, 2002.

BESTER, H. Screening vs. rationing in credit markets with imperfect information. **The American Economic Review**, v. 75, n. 4, p. 850-855, 1985.

BHARATH, S. et al. So what do I get? The bank's view of lending relationships. **Journal of Financial Economics**, v. 85, n. 2, p. 368-419, 2007.

BHARATH, ST et al. Lending relationships and loan contract terms. **The Review of Financial Studies**, v. 24, n. 4, p. 1141-1203, 2011.

BOOT, AWA. Relationship Banking: What Do We Know?. **Journal of Financial Intermediation**, v. 9, p. 7-25, 2000.

BOOT, AWA.; THAKOR, Anjan V. Moral hazard and secured lending in an infinitely repeated credit market game. **International Economic Review**, p. 899-920, 1994.

BORIO, C. The Covid-19 economic crisis: Dangerously unique. **Business Economics**, v. 55, p. 181-190, 2020.

CHAN, Y.; KANATAS, G. Asymmetric valuations and the role of collateral in loan agreements. **Journal of Money, Credit and Banking**, v. 17, n. 1, p. 84-95, 1985.

CHANDERA, Y.; SETIA-ATMAJA, L. Lending relationships, credit ratings and bank loan spreads: evidence from Indonesian listed companies. **International Journal of Managerial Finance**, v. 16, n. 4, p. 455-479, 2020.

CHANG, C. et al. Information from relationship lending: Evidence from loan defaults in China. **Journal of Money, Credit and Banking**, v. 46, n. 6, p. 1225-1257, 2014.

CHEN, H.; QIAN, W.; WEN, Q. **The impact of the COVID-19 pandemic on consumption**: Learning from high-frequency transaction data. In: AMERICAN ECONOMIC ASSOCIATION PAPERS AND PROCEEDINGS, v. 111, 2021, Pittsburgh, PA. Resumos… Pittsburgh: AEA Publications, 2021. p. 307-11.

CHODOROW-REICH, G. et al. Bank liquidity provision across the firm size distribution. **Journal of Financial Economics**, v. 144, n. 3, p. 908-932, 2022.

COIBION, O.; GORODNICHENKO, Y.; WEBER, M. **Labor markets during the COVID-19 crisis**: A preliminary view. National Bureau of Economic Research, 2020b.

COIBION, O.; GORODNICHENKO, Y.; WEBER, M. **The cost of the covid-19 crisis**: Lockdowns, macroeconomic expectations, and consumer spending. National Bureau of Economic Research, 2020a.

DEGRYSE, H.; ONGENA, S. Competition and regulation in the banking sector: A review of the empirical evidence on the sources of bank rents. **Handbook of Financial Intermediation and Banking**, v. 2008, p. 483-554, 2008.

DEMIRGÜÇ-KUNT, A.; PEDRAZA, A.; RUIZ-ORTEGA, C. Banking sector performance during the COVID-19 crisis. **Journal of Banking & Finance**, v. 133, p. 106305, 2021.

EICHENBAUM, MS; REBELO, S.; TRABANDT, M. The macroeconomics of epidemics. **The Review of Financial Studies**, v. 34, n. 11, p. 5149-5187, 2021.

ELSAS, R.; KRAHNEN, JP. Is relationship lending special? Evidence from credit-file data in Germany. **Journal of Banking & Finance**, v. 22, n. 10-11, p. 1283-1316, 1998.

FAHLENBRACH, R.; RAGETH, K.; STULZ, RM. How valuable is financial flexibility when revenue stops? Evidence from the COVID-19 crisis. **The Review of Financial Studies**, v. 34, n. 11, p. 5474-5521, 2021.

FERNANDES, N. Economic effects of coronavirus outbreak (COVID-19) on the world economy. **IESE Business School Working Paper**, n. WP-1240-E, 2020.

FERNANDO, Y. et al. A Study of Relationship Marketing in Malaysian Banks: Does Guanxi Influence Small Medium Enterprise Owners' Satisfaction?. **Journal of Relationship Marketing**, v. 12, n. 1, p. 22-40, 2013.

GOMEZ-GONZALEZ, JE; REYES, NR. Firm failure and relationship lending in an emerging economy: new evidence from small businesses. **Macroeconomics and Finance in Emerging Market Economies**, v. 6, n. 1, p. 131-145, 2013.

GREENWALD, DL; KRAINER, J.; PAUL, P. **The credit line channel**. Federal Reserve Bank of San Francisco, 2020.

GREENWOOD, J.; JOVANOVIC, B. Financial development, growth, and the distribution of income. **Journal of Political Economy**, v. 98, n. 5, Part 1, p. 1076-1107, 1990.

HASAN, I.; POLITSIDIS, PN; SHARMA, Z. Bank lending during the COVID-19 pandemic. **Munich Personal RePEc Archive Paper**, Germany, n. 103885, 2020.

HEVIA, C. et al. A perfect storm: COVID-19 in emerging economies. **COVID-19 in Developing Economies**, v. 1, n. 1, p. 25-37, 2020.

HORVATH, A.; KAY, BS; WIX, C. **The COVID-19 shock and consumer credit**: Evidence from credit card data. SSRN, 2021.

JAYARATNE, J.; STRAHAN, PE. The finance-growth nexus: Evidence from bank branch deregulation. **The Quarterly Journal of Economics**, v. 111, n. 3, p. 639-670, 1996.

JIMENEZ, G.; SALAS, V.; SAURINA, J. Determinants of collateral. **Journal of Financial Economics**, v. 81, n. 2, p. 255-281, 2006.

KAPAN, T.; MINOIU, C. **Liquidity insurance vs. credit provision**: Evidence from the COVID-19 crisis. SSRN, 2021.

KING, RG; LEVINE, R. Finance, entrepreneurship and growth. **Journal of Monetary Economics**, v. 32, n. 3, p. 513-542, 1993.

KYSUCKY, V.; NORDEN, L. The benefits of relationship lending in a cross-country context: A meta-analysis. **Management Science**, v. 62, n. 1, p. 90-110, 2016.

LEVINE, R.; LOAYZA, N.; BECK, T. Financial intermediation and growth: Causality and causes. **Journal of Monetary Economics**, v. 46, n. 1, p. 31-77, 2000.

LEVINE, R.; ZERVOS, S. Stock markets, banks, and economic growth. **American Economic Review**, p. 537-558, 1998.

LI, L.; STRAHAN, PE. Who supplies PPP loans (and does it matter)? Banks, relationships, and the COVID crisis. **Journal of Financial and Quantitative Analysis**, v. 56, n. 7, p. 2411-2438, 2021.

LOUKIL, S.; JARBOUI, A. Empirical determinants of relationship lending. **Cogent Economics & Finance**, v. 4, n. 1, p. 1163773, 2016.

LUDVIGSON, SC; SAI, MA; Serena, NG. **COVID-19 and the macroeconomic effects of costly disasters**. National Bureau of Economic Research, 2020.

MOURAD, FA et al. **Bank loan forbearance: evidence from a million restructured loans**. Banco Central do Brasil, 2020.

NORDEN, L.; MESQUITA, D.; WANG, W. COVID-19, policy interventions and credit: The Brazilian experience. **Journal of Financial Intermediation**, v. 48, p. 100933, 2021.

OZILI, P.; ARUN, T. Spillover of COVID-19: impact on the Global Economy. In: AKKUCUK, U. **Managing Inflation and Supply Chain Disruptions in the Global Economy**. IGI Global, 2023. p. 41-61.

PARK, CY; SHIN, K. COVID-19, nonperforming loans, and cross-border bank lending. **Journal of Banking & Finance**, v. 133, p. 106233, 2021.

PURI, M.; ROCHOLL, J.; STEFFEN, S. What do a million observations have to say about loan defaults? Opening the black box of relationships. **Journal of Financial Intermediation**, v. 31, p. 1-15, 2017.

RAJAN, RG. Insiders and outsiders: The choice between informed and arm's-length debt. **The Journal of Finance**, v. 47, n. 4, p. 1367-1400, 1992.

RODRIGUES, EAS; TAKEDA, T.; ARAÚJO, AP. **VI–Qual o Impacto das Garantias Reais nas Taxas de Juros de Empréstimo Bancário no Brasil?** Uma Breve Avaliação com Base nos Dados do SCR. Banco Central do Brasil, 2004.

SHARPE, SA. Asymmetric information, bank lending, and implicit contracts: A stylized model of customer relationships. **The Journal of Finance**, v. 45, n. 4, p. 1069-1087, 1990.

YIN, W.; MATTHEWS, K. Single versus multiple banking relationships-evidence from Chinese lending market. **The Singapore Economic Review**, v. 62, n. 01, p. 227-250, 2017.

ÇOLAK, G.; ÖZTEKIN, Ö. The impact of COVID-19 pandemic on bank lending around the world. **Journal of Banking & Finance**, v. 133, p. 106207, 2021.