

The auditors' position on operational continuity in banks in financial distress*

Mayse dos Reis Araujo¹

 <https://orcid.org/0000-0002-4285-9054>

Email: mayse.reis1@gmail.com

José Alves Dantas²

 <https://orcid.org/0000-0002-0577-7340>

Email: josealvesdantas@unb.br

¹ Universidade de Brasília, Faculdade de Economia, Administração, Contabilidade e Gestão de Políticas Públicas, Programa de Pós-Graduação em Ciências Contábeis, Brasília, DF, Brazil

² Universidade de Brasília, Faculdade de Economia, Administração, Contabilidade e Gestão de Políticas Públicas, Departamento de Ciências Contábeis e Atuariais, Brasília, DF, Brazil

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ABSTRACT

This article aimed to identify factors that determine the auditor's position in relation to the operational continuity of banks in financial distress. This research fills a gap in the national literature regarding the auditors' position on operational continuity in the banking industry – a relationship subject to conflict between the premise of informing the user about operational continuity and the risk of a self-fulfilling prophecy. Understanding the context that explains the action of auditors in relation to going concerns in the banking industry is important for economic agents to comprehend whether and how auditing contributes to an environment of trust, credibility, and security in the financial market, considering that continuity risk warrants an opinion from the auditors, given their role of mitigating informational asymmetry and principal-agent conflicts. The research results contribute to the activities of market and professional regulatory bodies, of economic agents interested in financial disclosure, and of the auditors themselves for understanding and improving auditing work in banks. The methodology used was the identification of cases of financial distress in the Brazilian banking industry between 1990 and 2018 and logit model estimation to verify the determining factors of the position on operational continuity in these cases. The empirical tests showed that the auditor's propensity to issue an opinion on the operational continuity of banks in financial distress is related to the importance of the client, to state control, to the application of NBC TA 570, and to the indicators of capital adequacy, asset quality, profitability, and liquidity. No relationship was confirmed with Big N auditors and capital of national origin.

Keywords: banks, auditing, operational continuity, financial distress, audit report.

Correspondence address

José Alves Dantas

Universidade de Brasília, Faculdade de Economia, Administração, Contabilidade e Gestão de Políticas Públicas, Departamento de Ciências Contábeis e Atuariais

CEP 70910-900

Campus Universitário Darcy Ribeiro – Brasília – DF – Brazil

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1. INTRODUCTION

Banks perform an important role in the functioning of economic systems by safeguarding depositors' rights and being active agents in payment system stability. The complexity of the banking business can lead to increased informational asymmetry, by impeding the monitoring of decisions made in these environments (Andrés & Vallelado, 2008). It is within this aspect that auditing represents one of the references for transmitting reliability to the information disclosed.

One of the relevant points in auditors' analyses is the concern with operational continuity (going concern), since financial statements are based on that premise – businesses will continue within the foreseeable future and assets and liabilities will be realized and liquidated over the normal course of activities (NBC TA 570). Thus, the auditor is responsible for issuing an opinion that confirms or not the entity's position regarding operational continuity, with that competence being associated with auditing quality, as the Basel Committee on Banking Supervision (BCBS, 2014) highlights.

In addition, a situation of financial distress is seen as an entity's inability to fulfill its payment obligations, leading it to default, insolvency, or the need to restructure, this being a stage prior to declaring bankruptcy (Gilson, 1989; Zmijewski, 1984). Evidence of distress thus represents indications of operational continuity risk to be considered by the auditors.

Therefore, this study aimed to identify factors that determine the auditors' position in relation to operational continuity in banks – characterized by mentions in the financial statements or in the audit report regarding the institution's distress or the adoption of measures to improve the financial and patrimonial situation – in cases configuring financial distress situations. That concern is justified by a certain degree of dubiousness in auditors' treatment of the going concern status of these entities, since: (i) the communication of continuity risk can become a self-fulfilling prophecy given the sector's sensitivity to information on financial instability (BCBS, 2013), potentially contributing to a bank run; and (ii) the non-disclosure of continuity risk, on the other hand, can adversely affect the economic agents using the information, who would take decisions without knowing the risks involved. Thus, there is a sort of trade-off in the auditor's choice, taking into account characteristics of the client for that decision to issue an opinion regarding the financial distress situation and possible repercussions for the auditor through the

audit risk (Krishnan & Krishnan, 1996; Sikka, 2009). It can be inferred that this tends to increase the audit risk and has consequences regarding the auditors' work, both in the case of them confirming any discontinuity predictions, and in the case of predictions contradicting subsequent events.

The analyses regarding operational continuity are related to the entity's financial distress, the going concern opinion (GCO), linked to conditions or events that signal potential financial problems or financial distress (Rosner, 2003). However, there may be resistance on the part of auditors to issue an opinion that informs the market of continuity risk, as the entity may be successful in hiding its distress condition for some time and subsequently recover, while the consequences of the opinion indicating discontinuity risk may become a self-fulfilling prophecy (Vanstraelen, 2003). For banks, the risk of that prophecy tends to be more relevant, since it can generate distrust in the market and uncertainty among clients regarding the administration of their deposits, leading to a bank run. This dual incentive can interfere in the audit, for which reason it is important to understand the context that leads auditors to issue a going concern opinion or not in the case of banks in financial distress, given the progress of standardization with respect to the topic, the characteristics of the entities and auditors, and the temporal perspectives.

To carry out the empirical tests, we identified the cases of banks in a financial distress situation in the Brazilian banking sector, considering the period from 1990 to 2018. We chose to start from 1990 due to the availability of data on the webpage of the Brazilian Central Bank (*Banco Central do Brasil* – BCB) that enabled the identification of cases typified as being of financial distress. The bank-year combination resulted in 503 observations of interest, which were the object of analysis regarding the treatments in the audit reports, using logit model estimation.

This study fills a gap in the national literature with respect to auditors' going concern opinions in financial institutions in financial distress. Even in the international arena, the literature remains in its infancy – Sikka (2009), Jin et al. (2011), and Shahzad et al. (2018) can be mentioned as examples of exceptions. In addition, based on the trust and security needed for the financial system to function and on the auditor's role in building that, we expected the potential results of this research to contribute to the activities of market and professional regulatory bodies, economic agents interested in financial disclosure, and

auditors themselves for understanding and improving auditing work in the banking industry.

It is important to highlight, in addition, that considering a period of almost 30 years, from 1990 to 2018, enabled us to cover different economic contexts in Brazil, with strong impacts on the banking sector, including the perspectives of continuity risk, such as: the Brazilian banking crisis during the 1990s, with relevant restructuring of the market, through acquisition and consolidations activities; the strong economic growth in the first decade of the 2000s; the global financial crisis from 2008 to 2019; and the economic and political crisis from 2014 to 2016. Besides the economic context, it is possible to infer that regulatory actions adopted – whether those of a prudential nature

or even those that discipline special regime processes – influence the possibility of bank discontinuity and failure. The research data confirm, for example, the concentration of confirmed occurrences of financial distress in the wake of the banking crisis of the 1990s – 151 observations between 1990 and 2002 and 60 between 2003 and 2018. The study also covers cases of indications of financial distress, but for those, because of limited available data, the analysis is confined to starting from 2000. Finally, it warrants mentioning that the study does not intend to identify the factors that determine financial distress situations per se, but rather to evaluate the role played by auditors in cases of evidence of confirmation or indications of bank discontinuity.

2. THEORETICAL FRAMEWORK

2.1 The Auditor's Role in Relation to Going Concerns

Given the premise that auditors provide useful information, as they have in-depth knowledge of entities' activities and future plans (Menon & Schwartz, 1987), they are responsible for issuing opinions that confirm or not the prospects of continuity. If they identify issues regarding the capacity for operational continuity, auditors are obliged to disclose that uncertainty in the audit report (Jones, 1996; Ittonen et al., 2017).

For Blay et al. (2011), as continuity is one of the underlying principles of accounting practice and theory, a negative audit opinion in relation to that aspect is an important signal for information users, by highlighting the increased financial risk. Even if that opinion is not actually a “prediction,” the market will understand it as such, behaving adversely to that qualification (O'Reilly, 2009).

In the specific case of banks, indicating material uncertainties regarding the going concern status is one of the main challenges for auditing, given the nature of the business model, the highly changeable solvency and liquidity positions, the regulatory structure, and the auditor's duty to warn these areas (BCBS, 2013), which reinforces the importance of professional skepticism, given the degree of uncertainty involved. Despite the challenges, auditing is an important monitoring mechanism, considering that high quality auditing reduces the probability of a bank having problems and being discontinued (Jin et al., 2011).

In light of that responsibility, auditors are constantly concerned that their opinion with regard to doubts concerning operational continuity may become a self-fulfilling prophecy with consequences for financial stability (BCBS, 2013). Sikka (2009) also indicates the reluctance of auditors to issue an opinion that points to the possible discontinuity of banks, for fear of creating panic or damaging their position of responsibility. On the other hand, silence causes substantial damage to depositors and clients.

2.2 Financial Distress in Financial Institutions

Given that auditing in banks is seen as a monitoring mechanism, helping to promote transparency and reliability of information, assisting supervisors, and contributing to market discipline, auditors need to pay attention to financial distress situations, so as to express a going concern opinion.

Gilson (1989) defines a financial distress situation as an entity's inability to fulfill its payment obligations, leading to default, insolvency, or the need to restructure to avoid bankruptcy. Financial distress is thus a stage prior to filing for bankruptcy (Zmijewski, 1984), whose effects emerge as the entity's probability of becoming insolvent increases, with a major part of that stage being incurred well before actual bankruptcy or default (Whitaker, 1999).

To understand how a financial distress situation is configured, analyses have been conducted to predict a bank's insolvency or not, with a potential systemic crisis,

based on particular characteristics and events. These include situations that are prerequisites of distress, such as: a merger, incorporation, closure, government financial assistance, transfer of shareholder control, transformation, division, and declared extrajudicial liquidation (Kaminsky & Reinhart, 1999; Barbosa, 2017; Rosa & Gartner, 2018; Azevedo & Gartner, 2019).

2.3 Factors Related with Going Concern Audit Reporting

Krishnan and Krishnan (1996) state that the first stage of an audit, with regard to operational continuity, is to verify whether the client fits the conditions of receiving an opinion indicating distress; the second involves the auditor's analysis to decide on their final opinion. Vanstraelen (2002) corroborates this view that the auditor's propensity to issue a GCO or not, in a financial distress scenario, depends on the auditor's and the client's characteristics, as well as the impacts of bad news. These factors give support to the research hypotheses, detailed in the following sub-items, based on the literature pertinent to each topic.

2.3.1 Big N audit firms

Consistently with DeAngelo's (1981) premises that, all factors remaining the same, size alters auditors' incentives, promoting a higher level of audit quality, some studies have evaluated if this is reflected in the going concern opinion. Ajona et al. (2008) examined the relationship between earnings management and auditor behavior in relation to pre-bankrupt clients in the Spanish market, finding that the Big N auditors showed a lower level of discretionary accruals and greater propensity to issue an opinion regarding operational continuity.

Based on the assumption that Big Four auditors are characterized by better work, Francis and Yu (2009) verified that these firms are more likely to issue going concern opinions, revealing independence in relation to the client. Berglund et al. (2018) also used that same assumption, finding that the Big Four stood out for their likelihood of issuing opinions on continuity, compared with medium-sized auditors.

Given that context, the following hypothesis is formulated:

H₁: There is a positive relationship between the audit firm being a Big N and the auditors' propensity to express an opinion on operational continuity in audits carried out in financial institutions in financial distress situations.

2.3.2 Importance of the client to the auditor

DeAngelo (1981) predicts that the audit firm's independence is hindered when a client represents a significant portion of its fees, affecting the audit quality. Along the same lines, Krishnan and Krishnan (1996) state that there are factors that influence the auditor's decision to modify an opinion or not, including the relative importance of the client, that is, the expected cost of losing the client. In addition, if the client's revenues are affected by a modified going concern opinion, the auditing income will also be affected.

Thus, the auditor is expected to resist assuming a negative position regarding continuity when an important client in their portfolio is concerned, giving rise to the following hypothesis:

H₂: There is a negative relationship between the client's relevance and the auditors' propensity to issue an opinion on operational continuity in audits carried out in financial institutions in financial distress situations.

2.3.3 Financial institutions under State or private control

Auditing can also be impacted by the type of control of the client, as addressed by Knechel and Vanstraelen (2007), who tested the assumption that auditors of privately controlled Belgian companies would be more susceptible to a loss of independence, affecting the decision to issue an opinion related to operational continuity. Considering the Brazilian reality, Brito et al. (2012) highlight that the greater regulation and control by government bodies result in greater legal exposure in subjects related to accounting information in state banks, with bad news being communicated quicker, which can be reflected in possible litigation. Thus, this study tests the following research hypothesis:

H₃: There is a positive relationship between the client being under state control and the auditors' propensity to issue an opinion on operational continuity in audits carried out in financial institutions in financial distress situations.

2.3.4 National or foreign financial institutions

Another difference perceived in the Brazilian banking industry is the presence of banks of national and foreign origin. Claessens et al. (2001) showed the effects of the presence of foreign banks, finding that these have greater profits in relation to domestic institutions. That finding is also confirmed by Lensink and Hermes (2004), who

investigated the entry of foreign banks into the banking sector of less developed countries, finding that the national industry is affected with regard to costs, profits, and profit margins. In addition, Bonin et al. (2005) analyzed 11 European countries between 1996 and 2000, investigating the effects of ownership, especially regarding strategic foreign owners, finding that these are more efficient.

Associated with the differences that exist between national and foreign banks, there may also be disparity between audits carried out in these types of institutions, as verified by Dantas and Medeiros (2015), which identified that banks with controlling capital of national origin had greater variations in discretionary components, indicating a greater possibility of manipulation, with consequences in audit quality.

Given differences in management, as well as the indication of lower audit quality related to domestic banks, with regard to continuity the audit report is expected to suffer the consequences of these factors, with there being less indication of going concern problems, thus supporting the following hypothesis:

H₄: There is a negative relationship between the client having capital of national origin and the auditors' propensity to issue an opinion on operational continuity in audits carried out in financial institutions in financial distress situations.

2.3.5 Regulatory environment

Another point considered, when discussing the audit opinion in relation to operational continuity, is the surrounding regulatory environment, since the norms are published to instruct auditors. For example, Citron and Taffler (2004) perceived a significant increase in going concern opinions in the United Kingdom in the 1990s, relating that behavior with the audit report standard introduced by SAS 600, which sought to improve disclosure. Carcello et al. (2009) studied going concern reports, analyzing the effects associated with a change of direction and audit standards related to the subject in Belgium, concluding that the revision of the norms reduced Type II errors and increased Type I errors. Subsequently, given the convergence of the international auditing standards, Sormunen et al. (2013) studied bankrupt companies from Denmark, Finland, Norway, and Sweden between 2007 and 2011, finding significant differences in the going concern reports before bankruptcy, indicating as a potential reason for that discrepancy the different times the standards were implemented.

Considering that empirical evidence found in different countries, the premise that the auditors' behavior is influenced by the content of the norms – whether as a way of protecting their reputation or of avoiding financial losses – and the fact that NBC TA 570 makes clearer the auditor's responsibility to analyze the going concern assumption and present a conclusion on uncertainty (Marques & Souza, 2017), the following hypothesis is formulated:

H₅: There is a positive relationship between the validity of NBC TA 570 and auditors' propensity to issue an opinion on operational continuity in audits carried out in financial institutions in financial distress situations.

2.3.6 CAMELS indicators

The skepticism exercised by bank auditors includes solvency and liquidity assessments (BCBS, 2014). For that, there are factors used to define problems of financial distress and predict a default situation before it occurs, enabling the adoption of measures to correct them or avoiding proportions that externally reflect on the entity (Meyer & Pifer, 1970; Betz et al., 2014; Rosa & Gartner, 2018).

These factors are based on financial solidity methods used to detect distress in financial institutions, employed by bank supervisors to analyze vulnerability factors, according to the categories of capital adequacy (C), asset quality (A), management quality (M), earnings ability (E), liquidity (L), and sensitivity to market risk (S), forming the CAMELS model (Rosa & Gartner, 2018).

Capital adequacy is related to the credit situation and exposure to risks, in which the institution would be capable of absorbing unexpected losses without affecting operations and avoiding failure. Protection against losses can prevent a bank's bankruptcy, support financing and operations, as well as protecting depositors and inspiring confidence (Rahman et al., 2004). Leverage is a factor analyzed by auditors and a higher level of it can lead them to disclose in their reports effects that compromise operational continuity (Altman & McGough, 1974; Mutchler, 1985; Menon & Schwartz, 1987; Raghunandan & Rama, 1995). This gives support to the following research hypothesis:

H₆: There is a negative relationship between the client's capital adequacy and the auditors' propensity to issue an opinion on operational continuity in audits carried out in financial institutions in financial distress situations.

Asset quality indicates, when weak, the bank's solvency difficulties. Asset quality is related with the bank's current and future profitability, since high loan default rates deteriorate and reduce its reserves (Rahman et al., 2004). The loss of assets is a direct cause of bank failure, but it can be controlled and the bank can remain operational due to other factors. This should be reflected in the audit report, with there being a positive association between debt default and the issuance of a going concern opinion (Chen & Church, 1992; Geiger & Raghunandan, 2001; Geiger et al., 2005; Martens et al., 2008). Thus, the following hypothesis is formulated:

H₇: There is a negative relationship between the client's asset quality and the auditors' propensity to issue an opinion on operational continuity in audits carried out in financial institutions in financial distress situations.

Earnings indicators are some of the most important ones in banks, as they indicate how well the administration is managing to maintain earnings growth, keeping control over profitable assets and seeking cheaper sources of financing (Rahman et al., 2004). On this point, there is also a perceived propensity of auditors to issue reports with a GCO when entities show less

profitability (Mutchler, 1985; Koh & Killough, 1990; Lee et al., 2005; Gallizo & Saladrigrues, 2016). Considering these premises, the following research hypothesis is formulated:

H₈: There is a negative relationship between the client's profitability and the auditors' propensity to issue an opinion on operational continuity in audits carried out in financial institutions in financial distress situations.

Liquidity is an essential aspect for a bank to fulfill requests to withdraw deposits and loan requirements and should be managed to avoid excessive costs to cover immediate needs (Rahman et al., 2004). That is a concern of auditors when analyzing the possibility of an entity's continuity, in which lower liquidity levels can lead them to substantial doubts about the going concern status (Menon & Schwartz, 1987; Koh & Killough, 1990; Raghunandan & Rama, 1995). Based on these precepts, the following hypothesis is formulated:

H₉: There is a negative relationship between the client's liquidity and the auditors' propensity to issue an opinion on operational continuity in audits carried out in financial institutions in financial distress situations.

3. METHODOLOGICAL PROCEDURES

3.1 Description of the Object of Study

To conduct the empirical tests, the object of study was Brazilian financial institutions – multiple banks, commercial banks, investment banks, savings banks, and development banks – in financial distress situations, considering the period from 1990 to 2018. The accounting information, financial statements, and respective audit reports were based on the accounting model defined by the banking regulator, the BCB.

3.2 Development of the Analysis Model

The econometric model for the empirical tests was inspired by Tsipouridou and Spathis (2014), who examined the relationship between the GCO and earnings management, a practice represented by discretionary accruals. The original model was adapted, with the inclusion of other independent variables, based on Krishnan and Krishnan (1996), Tagesson and Öhman (2015), Dantas and Medeiros (2015), Barbosa (2017), and Rosa and Gartner (2018).

Thus, to test the hypotheses formulated, in order to identify the determining factors of the auditor's position regarding the going concern status in the audit report (AR_{GC}) on the statements of Brazilian banks in financial distress, equation 1 is used.

$$AR_{GCit} = \beta_0 + \beta_1 BigN_{it} + \beta_2 IC_{it} + \beta_3 PUB_{it} + \beta_4 NAT_{it} + \beta_5 ENV_{it} + \beta_6 CAP_{it} + \beta_7 AQt_{it} + \beta_8 PROF_{it} + \beta_9 LIQ_{it} + \varepsilon_{it} \quad 1$$

in which AR_{GCit} is the measure that represents the going concern opinion on the financial statements of bank i at time t , characterized by a financial distress situation, according to Section 3.3; $BigN_{it}$ indicates whether the audit firm that audits bank i in period t is a Big N – including the current Big Four (PwC, Ernst & Young, KPMG, and Deloitte) and Arthur Andersen, discontinued in 2002, with a dummy variable taking the value 1 for Big N firms and 0 for the rest; IC_{it} represents the importance of client i at time t , characterized by financial distress, in the auditor's portfolio, using the bank's size as a proxy, measured as the natural logarithm of assets; PUB_{it} represents the type

of control, whether state or private, of bank i at time t , characterized by financial distress, with a dummy variable taking the value 1 for banks under state control and 0 for the rest; NAT_{it} indicates whether bank i is of national or foreign origin, at time t , with the dummy variable taking the value 1 for banks with capital of national origin and 0 for those with capital of foreign origin; ENV_{it} indicates the regulatory environment that determines the operational continuity at time t in which the auditor issued the report on the statements of bank i in a financial distress situation, with a dummy variable taking the value 1 for cases of statements covering 2010 onward (enactment of NBC TA 570) and 0 for statements dated up to 2009 (prior to the enactment of NBC TA 570); CAP_{it} indicates the degree of capitalization of bank i at time t , characterized by financial distress, measured as the ratio between net equity and total assets; AQT_{it} indicates the asset quality of bank i at time t , characterized by financial distress, measured by the proportion of the credit portfolio unprovisioned for credit risk losses; $PROF_{it}$ indicates the profitability of bank i at time t , characterized by financial distress, measured by return over net equity; LIQ_{it} indicates the liquidity of bank i at time t , characterized by financial distress, represented by the ratio between bank deposits and the credit portfolio, which conveys the proportion of applications in credit operations that are funded by stable resources; and ε_{it} is the error term of the regression, assuming \sim i.i.d. $N(0, \sigma^2)$.

To ensure the equivalence and uniformity of the variables over time, the accounting data were preliminarily

converted into *real* when they referred to periods in which different currencies were in place – *real cruzeiro, novo cruzado*, or *cruzado*. Then they were monetarily updated according to the National Comprehensive Consumer Price Index (IPCA) up to 12/31/2018.

The independent variables are associated with the research hypotheses that seek to identify the determinants of the auditor's going concern opinion in the audit report (AR_{GC}) on financial institutions in a context of financial distress. The measurement of the dependent variable, AR_{GC} , observes the criteria of Section 3.3.

3.3 Definition of the Dependent Variable (AR_{GC})

The measurement of the dependent variable (AR_{GC}) is based on a sequence of stages, as shown in Figure 1: (i) identification of the financial distress situation; (ii) identification of the auditor's going concern opinion; and (iii) measurement of the variable.

3.3.1 Identification of the financial distress situation – event (i)

Considering the criteria described in Figure 1, examinations were carried out of the data from 1990 to 2018 to identify the representative cases of clear signs of discontinuity or indications of financial distress, which point to the loss of the entity's value (Whitaker, 1999; Huang et al., 2012). When more than one type of event was identified, only the one that occurred first was considered, to avoid double counting. Table 1 consolidates the 534 cases of financial distress identified, by criterion type.

Table 1
Factors indicative of financial distress in a financial institution

Criterion	Basis	References	Data sources	Number of cases
Declaration of a special regime or intervention	Measures that aimed to avoid a possible bankruptcy situation or, if that is unavoidable, to protect users before the default.	Bongini, Claessens, & Ferri (2001); Chiaramonte & Casu (2017); Barbosa (2017)	(1) (4)	80
Temporary suspension of the FI's activities	Preventive measure to avoid irregularities spreading, this being a subset of financial distress.	Bongini, Claessens, & Ferri (2001); Barbosa (2017)	(1)	0
Merger, incorporation, or acquisition of a FI with assumptions of difficulties	Merger and acquisition condition is also a condition of financial distress if it is to avoid a possible bankruptcy situation.	Bongini, Claessens, & Ferri (2001); Chiaramonte & Casu (2017); Azevedo & Gartner (2019)	(3)	8
Closed FI (cancelled or liquidated)	Condition of its status – composition, bankruptcy, dissolution, in liquidation. It is the extreme level of the financial distress situation, i.e. default <i>per se</i> .	Bongini, Claessens, & Ferri (2001); Chiaramonte & Casu (2017); Barbosa (2017)	(4)	123
Capital ratio below the regulatory level	Higher (lower) capital buffers indicate lower (higher) vulnerability of the FI to the financial distress situation.	Lu & Whidbee (2013); Chiaramonte & Casu (2017)	(2)	60
Negative operating income – two consecutive periods	Event is related to the FI's ability to generate earnings with its operational activities. The loss of that capacity is indicative of financial distress.	Mutchler (1985); Platt & Platt (2002); Seyam & Brickman (2016)	(2)	196

Table 1

Cont.

Criterion	Basis	References	Data sources	Number of cases
Recurrent losses – two consecutive periods	Factor linked to the institution's capacity to generate value for the parties involved. The loss of that faculty is indicative of financial distress.	Mutchler (1985); Gallizo & Saladrigues (2016)	(2)	67

Note: (1) Resolution Regimes Report - BCB; (2) IF.Data Report - BCB; (3) Financial Stability Reports - BCB; (4) Requirement of additional information for the BCB.

FI = financial institution.

Source: Elaborated by the authors.

3.3.2 Identification of the going concern opinion – event (ii)

The next stage consisted of examining the financial statements and respective audit reports to identify if the administration itself and/or the auditors issued an opinion on operational continuity. To that end, we considered mentions of the institution's difficulties or measures to improve the financial or patrimonial situation in the financial statements and in the audit report, respectively. These examinations are based on the assumption that the administration should issue an opinion if there is evidence of discontinuity risk and that the auditor should also issue an opinion if there are substantial doubts about the entity's capacity to maintain the continuity of its operations (Ittonen et al., 2017). For that, 534 cases of financial distress were divided into:

- Confirmed cases of financial distress: situations that led to discontinuity, to a declaration of assistance or intervention from the regulatory body, or to a merger/acquisition of the institution in a financial distress situation (items "a.1" to "a.4" of Table 1). We considered the statements and audit reports from two periods ($t-1$ and $t-2$) prior to the date of occurrence of the facts, given the premise that the entity should present symptoms of financial distress before it is confirmed. The auditor is expected to identify and address these factors and address the going concern risks in their report before the collapse.
- Cases with indications of financial distress: situations of relevant indications of financial distress, without the adoption of measures of greater proportions, such as

intervention or equity changes or default itself (items "a.5" to "a.7" of Table 1). We considered the statements from the period (t) in which the event occurred, with the expectation that the auditors would consider these aspects in their going concern opinion.

The examinations focused on 745 statements and respective audit reports, relating to periods $t-2$, $t-1$, or t , according to the case. The research contemplated: (i) consultations of the Official Gazette of the State of the headquarters of the financial institution under financial distress, given the legal requirement for publication (the restriction is that not all states make available the digital version of the oldest issues); (ii) searches in the *Target GEDWeb* databases; (iii) requests to the official press of the states; (iv) consultations on the website of the actual institution of interest; and (v) consultation of the *Brazilian Banking Review* (RBB), founded in 1933 with the aim of meeting the needs of financial institutions in complying with the regulatory arrangements that foresee the publication of financial statements.

As a result of the sequence of identification procedures, we located 503 of a total of 745 statements, equivalent to 67.5% of the total.

3.3.3 Measurement of the AR_{GC} variable – event (iii)

The final stage for measuring the AR_{GC} variable consisted of identifying whether the audit report considered or not the entity's financial distress situation. Thus, the dependent variable AR_{GCit} is a dummy variable, which takes the value 1 for the cases in which the auditor issues an opinion regarding the continuity of the entity in financial distress and 0 for the rest of the cases.

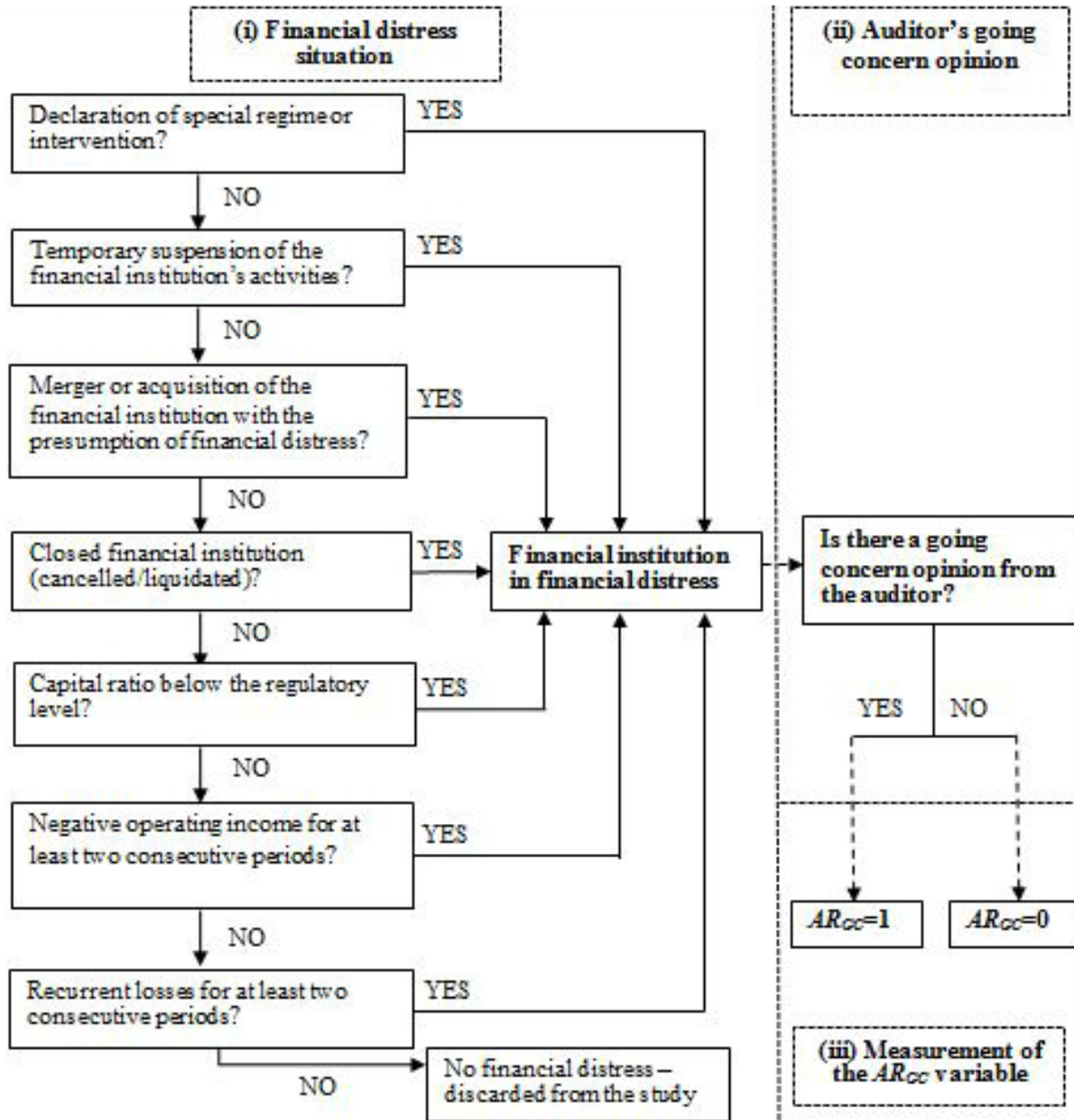


Figure 1 Definition of the dependent variable AR_{cc}
 Source: Elaborated by the authors.

4. RESULTS ANALYSIS

The first stage of the empirical tests consisted of measuring the dependent variable, representative of the auditors' going concern opinion on the set of 503 statements of banks in financial distress situations. The examinations revealed that in 102 audit reports (20% of the total) there was a mention of facts, moments, characteristics, or measures of the institution's controller

that reported a financial distress situation. On the other hand, in 401 audit reports, there was no mention regarding the moment of financial distress that the financial institution was facing, which increases the relevance of knowing the factors that explain the auditor's position on the situation.

4.1 Descriptive Statistics

The descriptive statistics of the explanatory variables, separated according to the auditor's going concern opinion ($AR_{GC} = 0$ or $AR_{GC} = 1$), are consolidated in Table 2,

Table 2

Descriptive statistics of the model (3.1)

	$AR_{GC} = 0$		Number of observations: 401			$AR_{GC} = 1$		Number of observations: 102		
	Mean	Median	Max.	Min.	St. dev.	Mean	Median	Max.	Min.	St. dev.
BigN	0.2394	0.0000	1.0000	0.0000	0.4273	0.3627	0.0000	1.0000	0.0000	0.4832
IC	20.9563	20.7800	31.8956	9.5445	2.6514	20.6306	20.1215	26.8695	16.5811	2.0720
PUB	0.0599	0.0000	1.0000	0.0000	0.2375	0.1471	0.0000	1.0000	0.0000	0.3559
NAT	0.5636	1.0000	1.0000	0.0000	0.4966	0.7255	1.0000	1.0000	0.0000	0.4485
ENV	0.3741	0.0000	1.0000	0.0000	0.4845	0.5294	1.0000	1.0000	0.0000	0.5016
CAP	0.3342	0.2073	0.9611	0.0434	0.2908	0.2659	0.1334	0.9611	0.0434	0.2795
AQt	0.9194	0.9546	1.0000	0.5449	0.1083	0.8638	0.9342	1.0000	0.5449	0.1468
PROF	-0.0154	0.0154	0.3184	-0.8172	0.2115	-0.1964	-0.0648	0.3184	-0.8172	0.3652
LIQ	2.5755	0.9033	19.4584	0.0000	4.8619	1.4348	0.5604	19.4584	0.0000	3.2478

Note: AR_{GC} is a dummy representative of the going concern opinion on the statements of the bank in a financial distress situation; *BigN* is a dummy that indicates if the audit firm that audits the bank is a Big N; *IC* is the measure of the client's importance in the auditor's portfolio; *PUB* is a dummy that identifies the banks under state control; *NAT* is a dummy that indicates whether the bank is of national origin; *ENV* is a dummy representative of the validity of NBC TA 570; *CAP* indicates the bank's capitalization level; *AQt* represents the asset quality (credit portfolio) of the bank; *PROF* indicates the bank's profitability; *LIQ* indicates the bank's liquidity.

Source: Elaborated by the authors.

The comparative analysis of the statistics between the groups with and without an auditor's opinion on operational continuity enables us to establish the first indications of a relationship between the factors and the auditor issuing an opinion. The results reveal that: there is a greater share of audit reports by Big Ns (*BigN*) and of statements of banks under state (*PUB*) and national (*NAT*) control in the group of reports in which the auditors issue a going concern opinion; there is a greater proportion of reports with an auditor's opinion in the period when NBC TA 570 (*ENV*) was in effect; the banks that received a going concern opinion by the auditors are, on average, smaller (*IC*) and present worse indicators of capital (*CAP*), asset quality (*AQ*), profitability (*PROF*), and liquidity (*LIQ*).

Although insufficient to draw conclusions on the research hypotheses, the comparison of the descriptive statistics signals compatibility with the predicted relationships, except regarding the share of *NAT* being proportionally more relevant in the group of reports with a growing concern opinion.

With regard to the *BigN* variable, in particular, attention is drawn to the fact that the share of the main audit firms represents less than 30% of the observations, which would contradict the perception of market concentration documented by Guimarães and Dantas (2015). That can

highlighting that the variables relating to the CAMELS indicators (*CAP*, *AQt*, *PROF*, and *LIQ*) were winsorized at 5%, to process the outliers, given the high dispersion verified – which can be explained by the condition of entities in financial distress.

be explained by possible migration from the big to the small audit firms when financial distress events begin to materialize (Matsumura et al., 1997) or even the fact that the work of the Big N is more relevant in the biggest banks, which would be considered too big to fail.

4.2 Tests of the Determinants of the Auditors' Going Concern Opinion

Prior to the logit model estimation (3.1), the following tests were conducted to ensure the robustness of the empirical findings: Hosmer-Lemeshow, to assess the quality of the model, comparing expected frequencies with the use of the model by means of a chi-squared test; ADF-Fisher and PP-Fisher, to evaluate the stationarity of the series; variance inflation factor (VIF), to verify the risk of multicollinearity; Durbin-Watson and Breusch-Godfrey LM, to test if the estimated standard errors are biased and indicate risks of autocorrelation and heteroscedasticity in the residuals. In addition, the SUR (PCSE) structure was used, which generates robust parameters even in the presence of autocorrelation and heteroscedasticities in the residuals.

To carry out the empirical tests, three groups of observations were separated: the set of 503 cases

examined, the 262 confirmed cases of financial distress (items “a.1” to “a.4” of Table 1), and the 241 cases of indications of financial distress (items “a.5” to “a.7” of Table 1). The full sample serves to test the research hypotheses, while the segregation between the confirmed cases and the indications of financial distress works as a sensitivity analysis, assessing whether there is a

difference in behavior in relation to these conditions. For each group, two estimations were carried out: one with all the explanatory variables of the model and another excluding the CAMELS indicators, including due to the fact that these indicators were only calculated as of 2000. The results of the estimations are consolidated in Table 3.

Table 3

Results of the model estimations (3.1)

Tested model:						
$AR_{GCit} = \beta_0 + \beta_1 BigN_{it} + \beta_2 IC_{it} + \beta_3 PUB_{it} + \beta_4 NAT_{it} + \beta_5 ENV_{it} + \beta_6 CAP_{it} + \beta_7 AQ_{it} + \beta_8 PROF_{it} + \beta_9 LIQ_{it} + \varepsilon_{it}$						
	Confirmed cases and with indications of FD		Confirmed cases of FD		Cases with indications of FD	
C	0.965*** (0.001)	0.231 (0.143)	0.286 (0.410)	0.320* (0.088)	13.379** (0.024)	0.106 (0.708)
BigN _{it}	0.040 (0.407)	0.056 (0.198)	0.138** (0.032)	0.085 (0.114)	0.054 (0.482)	0.028 (0.693)
IC _{it}	-0.021** (0.042)	-0.007 (0.315)	-0.017* (0.087)	-0.011 (0.184)	-0.034 (0.112)	0.001 (0.921)
PUB _{it}	0.181** (0.028)	0.204*** (0.003)	0.269*** (0.001)	0.274*** (0.000)	0.003 (0.984)	-0.037 (0.826)
NAT _{it}	-0.003 (0.937)	0.071* (0.060)	0.007 (0.910)	0.009 (0.866)	-0.004 (0.951)	0.164*** (0.006)
ENV	0.014 (0.729)	0.128*** (0.000)	0.243*** (0.002)	0.217*** (0.001)	-0.029 (0.656)	0.021 (0.730)
CAP _{it}	-0.354*** (0.001)		-0.110 (0.433)		-0.510** (0.012)	
AQ _{it}	-0.287* (0.0971)		0.198 (0.526)		-0.287 (0.401)	
PROF	-0.332*** (0.000)		-0.123 (0.197)		-0.341*** (0.001)	
LIQ _{it}	-0.005 (0.232)		-0.009* (0.089)		-0.011* (0.069)	
Number of observations	399	503	200	262	200	241
R ²	0.1495	0.0586	0.1682	0.1060	0.1936	0.0438
Adjust. R ²	0.1299	0.0492	0.1288	0.0886	0.1554	0.0234
Est. F	7.5998	6.1914	42.6850	60.7250	50.6680	21.5060
F (p-value)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0604

Note: AR_{GC} is a dummy representative of the going concern opinion on the statements of the bank in a financial distress situation; $BigN$ is a dummy that indicates if the audit firm that audits the bank is a Big N; IC is the measure of the client's importance in the auditor's portfolio; PUB is a dummy that identifies the banks under state control; NAT is a dummy that indicates whether the bank is of national origin; ENV is a dummy representative of the validity of NBC TA 570; CAP indicates the bank's capitalization level; AQ represents the asset quality (credit portfolio) of the bank; $PROF$ indicates the bank's profitability; LIQ indicates the bank's liquidity.

FD = financial distress.

P-value in parentheses.

The numbers highlighted in bold represent the variables that presented a significance level: *** (1%); ** (5%); * (10%).

Source: Elaborated by the authors.

The results of the tests with the full sample did not present a relevant relationship between the *BigN* and *AR_{GC}* variables (only in the subsample with the confirmed cases of financial distress was a positive relationship revealed), despite the analysis of the descriptive statistics initially suggesting a greater incidence of going concern opinions by the Big N. This evidence would contradict the findings of Ajona et al. (2008), Francis and Yu (2009), Xu et al. (2013), and Berglund et al. (2018) and lead to the rejection of H₁. On the other hand, they corroborate the findings of Mutchler et al. (1997), who did not perceive significance in the relationship between the audit report communicating the continuity risks of entities in financial distress situations and the fact that the auditor is a Big N. One potential reason for that result may be a sort of migration from big audit firms to smaller ones, before the configuration of financial distress, whether due to different levels of knowledge, independence, ethics, risk preference, marketing strategy, or the set of information (Matsumura et al., 1997).

In the case of the importance of the client (*IC*), the results with the full sample show a negative association between the auditor's opinion on the operational continuity of banks in financial distress and the client's size. This corroborates the expectations of H₂, suggesting that the client's relevance may be an impact factor for the auditor's independence commitment and for the audit quality (DeAngelo, 1981; Krishnan & Krishnan, 1996; Gallizo & Saladrighes, 2016). It is possible to conclude that the auditor may take a resistant stance to adopting a negative opinion when an important client in its portfolio is involved. Evidence along these lines was also found in the subsample with only confirmed cases of financial distress.

In relation to the controller of the institution, the results indicate that auditors take a more conservative stance in relation to banks in financial distress under state control (*PUB*), both in the full sample and in the subsample of confirmed cases, corroborating H₃. That is, the auditor is more likely to issue an opinion on the operational continuity risk of a public bank than a private one. This may be a result of the greater risk of litigation (Kaplan & Williams, 2013; Beams & Yan, 2015), as there is greater social interest in information provided in the statements and in the audit report of public banks, given their role in the economy (Xu et al., 2013), meaning the auditors are more likely to issue an opinion on the continuity risk in financial distress situations. Another possibility is that the auditors feel more comfortable in highlighting the going concern status, given that the economic agents would minimize the negative effects of such a position, due to the fact that these entities have the support of the public authorities, which would not let them fail.

Another factor studied is the impact of the origin of the controlling capital, whether *NAT* or foreign, on the auditor's opinion. Under the argument that audits carried out in national institutions would be of lower quality, as highlighted by Dantas and Medeiros (2015), a negative association was expected between the *AR_{GC}* and *NAT* variables. None of the six estimations, however, revealed such a relationship, configuring the rejection of H₄. By contrast, in two estimations with the exclusion of the variables relating to the CAMELS indicators positive signs were calculated for the variable in question.

In relation to the regulatory environment (*ENV*), regarding the validity of NBC TA 570, which establishes clearer criteria for the auditor's opinion on operational continuity, this was shown to be positively related with the auditor's going concern opinion (*AR_{GC}*) in the full sample, when the CAMELS variables are discarded, and in the two estimations with the subsample with the confirmed cases of financial distress. The results confirm the expectations that, after the standard came into effect, the auditor was more likely to issue a going concern opinion in banks in financial distress, corroborating H₅. This is consistent with the premise that changes in the professional standards usually raise references to operational continuity (Citron & Taffler, 2004; Carcello et al., 2009; Sormunen et al., 2013), given that the auditor's accountability becomes clearer (Owens et al., 2019).

Regarding the financial solidity indicators, capital adequacy (*CAP*) was shown to be negatively related with the dependent variable *AR_{GC}*, both in the full sample and in the subsample with the indications of financial distress. The results confirm the expectations that the more leveraged (less capital) the bank is, the greater the probability of the auditor expressing an opinion on continuity risk, corroborating H₆. This evidence is compatible with the affirmations of Altman and McGough (1974), Mutchler (1985), Menon and Schwartz (1987), and Raghunandan and Rama (1995), by indicating that lower capital ratios should have impacts on the audit report by revealing that the entity is unprotected, even more so when a financial distress situation is concerned.

The estimations also revealed a negative relationship between the dependent variable *AR_{GC}* and asset quality (*AQt*), in the full sample, confirming H₇ and reinforcing the findings of Chen and Church (1992), Geiger and Raghunandan (2001), Geiger et al. (2005), and Martens et al. (2008). The empirical evidence indicates that greater possibilities of losses, related to the deterioration of assets, reveal a greater tendency for the auditors to issue a going concern opinion for banks in financial distress. For the subsamples of the confirmed cases and those with

indications of financial distress no relevant relationships were identified.

Profitability (*PROF*) is another aspect examined as a potential determinant of the auditor's going concern opinion (*AR_{GC}*). The tests in the full sample and in the subsample with the cases of indications of financial distress showed a negative relationship between the variables, corroborating hypothesis *H₈* and reinforcing the findings of Mutchler (1985), Koh and Killough (1990), Lee et al. (2005), and Gallizo and Saladrignes (2016), in the sense that the worse the bank's profitability is, the greater the probability of the auditor highlighting the going concern status.

In relation to liquidity (*LIQ*), although the tests with the combined sample did not reveal a relevant negative relationship with the dependent variable *AR_{GC}*,

by segregating the database between the confirmed cases and the cases indicative of financial distress, negative associations were found between the variables. This set of evidence suggests the corroboration of hypothesis *H₉*, on the effects of the vulnerability of the financial institution regarding the depositors' needs to withdraw funds, which would lead to substantial doubts regarding the going concern opinion in the audit report, as envisioned by Menon and Schwartz (1987), Koh and Killough (1990), Raghunandan and Rama (1995), and Rahman et al. (2004).

Finally, for the purposes of an additional robustness test, a univariate analysis was carried out between the dependent variable and each one of the independent variables, using correlation analysis, as according to Table 4.

Table 4

*Correlation between the dependent (*AR_{GC}*) and the independent variables of the model (3.1)*

	<i>BigN</i>	<i>IC</i>	<i>PUB</i>	<i>NAT</i>	<i>ENV</i>	<i>CAP</i>	<i>AQt</i>	<i>PROF</i>	<i>LIQ</i>
<i>AR_{GC}</i>	0.112	-0.052	0.131	0.133	0.127	-0.095	-0.190	-0.279	-0.101
p-value	(0.012)	(0.249)	(0.003)	(0.003)	(0.004)	(0.033)	(0.000)	(0.000)	(0.035)
Sig.	**		***	***	***	**	***	***	**

Note: *AR_{GC}* is a dummy representative of the going concern opinion on the statements of the bank in a financial distress situation; *BigN* is a dummy that indicates if the audit firm that audits the bank is a Big N; *IC* is the measure of the client's importance in the auditor's portfolio; *PUB* is a dummy that identifies the banks under state control; *NAT* is a dummy that indicates whether the bank is of national origin; *ENV* is a dummy representative of the validity of NBC TA 570; *CAP* indicates the bank's capitalization level; *AQt* represents the asset quality (credit portfolio) of the bank; *PROF* indicates the bank's profitability; *LIQ* indicates the bank's liquidity.

Significance level: *** (1%); ** (5%); * (10%).

Source: Elaborated by the authors.

The results obtained with the univariate analysis confirm the empirical evidence derived from the model estimation (3.1), indicating that the auditors' propensity to issue an opinion on operational continuity in audits carried out in banks in financial distress situations is positively related with the condition of the audited entity being under state control (*H₃*) and the validity of NBC TA 570 (*H₅*) and negatively associated with the capitalization level (*H₆*), asset quality (*H₇*), profitability level (*H₈*), and liquidity (*H₉*). That consistency between the results of the uni and multivariate analyses is also verified with regard to the refutation of hypothesis *H₄*, which foresaw a negative relationship between the auditor's propensity to issue a going concern opinion and the fact the bank in financial distress is a national bank. This reveals that the corroboration of these hypotheses is independent of the combination or not of the other variables in the regression, which is revealed to be an element of robustness for the empirical findings related to these variables and hypotheses.

Only in the case of hypotheses *H₁* and *H₂* do the tests with the estimation of the model (3.1) and the direct

correlation with the dependent variable not generate coincident results. When considering the estimation with the combination of independent variables, the *BigN* variable did not show relevance in explaining the auditor's behavior regarding their opinion on the continuity risk of entities in financial distress. Only when the other factors that would explain that behavior are ignored was it found that the big audit firms would have a greater propensity to issue a going concern opinion in situations of the type. This restriction imposes the refutation of hypothesis *H₁*.

With regard to the *IC* variable the opposite occurs. The model estimation reveals a negative association with the dependent variable, indicating that the greater the importance is of the client to the audit firm, the lower the auditor's propensity to issue a going concern opinion on entities in financial distress, corroborating *H₂*. The univariate analysis limits the validity of that hypothesis to considering the combination of the other determining factors in the estimation, which is revealed to be a limit to that finding.

5. CONCLUSIONS

With the aim of identifying the factors that determine the auditor's position in relation to the operational continuity of banks in financial distress, this study showed that the auditor's propensity to express a going concern opinion on these entities is: positively related with the condition of the client being a bank under state control and the validity of NBC TA 570, which foresees clearer responsibilities regarding the treatment of operational continuity; and negatively related with the client's importance and with the indicators of capital adequacy, asset quality, profitability, and liquidity. No relevant relationships were confirmed with the Big N firms or when the controlling capital of the bank is national or foreign.

The study contributes to advancing the national literature on the topic, since there is no evidence of studies that explore the dimension of analyzing the operational continuity of banks in financial distress scenarios. This is especially critical when considering the fact that in the financial system going concern opinions can have adverse repercussions related to self-fulfilling prophecies and consequent bank runs. The empirical evidence contributes to the lines of research that focus on analyzing aspects such as audit quality, audit errors, or even auditor independence – fundamental elements for auditing work to objectively fulfill its role of ensuring a business environment that is characterized by trust and credibility.

The contributions extend beyond the literature and may be useful for regulatory bodies and standard setters, for auditors, and for accounting professionals to understand the context of the work of auditors in such an atypical

situation characterized by uncertainty and professional judgement, as is the opinion on operational continuity in financial distress situations. The points raised in this study could also be reflected in processes for regulating the profession and help investors in their management and decision-making process.

As limitations, we highlight the indications that other variables not addressed could explain the auditor's position, given the level of the coefficient of determination around 15%, in the full sample, which warrants conducting new studies on the topic. Variables that were unavailable for this study, such as the experience of the audit partner and the team responsible for the work, investors' and analysts' expectations, and the planned hours budget, for example, could improve the specification of the auditor's opinion events. We should also highlight the unavailability of some statements and audit reports of banks that were discontinued in the sampling period, as well as some financial data relating to the 1990s, which limited the coverage of the tests.

Finally, it is important to highlight that greater knowledge on the topic may require research with a qualitative or even experimental focus, which could explore nuances that document-based empirical research is unable to examine in depth, such as the weight attributed by the auditor in their professional judgement on the going concern status to economic-financial indicators and to factors of a behavioral and management nature and regarding key people involved and the structure of information systems, among others, as well as concerning procedures adopted in that judgement.

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