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**Can the status quo bias help to explain accounting choices?**

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Tese apresentada ao Programa de Pós-Graduação em Controladoria e Contabilidade da Faculdade de Economia, Administração e Contabilidade de Ribeirão Preto da Universidade de São Paulo como requisito para obtenção do grau de Doutora em Ciências. Versão corrigida. A versão original encontra-se disponível na FEA-RP/USP.

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AUTORIZO A REPRODUÇÃO E DIVULGAÇÃO, TOTAL OU PARCIAL, DESTE TRABALHO, POR QUALQUER MEIO, CONVENCIONAL OU ELETRÔNICO PARA FINS DE ESTUDO E PESQUISA, DESDE QUE CITADA A FONTE.

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“Se as coisas são inatingíveis... ora!  
Não é motivo para não querê-las...  
Que tristes os caminhos, se não fora  
A presença distante das estrelas!”

**Mário Quintana.**

## RESUMO

STANZANI, L. M. L. **O viés do status quo pode ajudar a explicar as escolhas contábeis?** 2021. 95 f. Tese (Doutorado) – Faculdade de Economia, Administração e Contabilidade de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, 2021.

A literatura predominante sobre escolhas contábeis é sustentada, basicamente, pelo comportamento racional e oportunista dos gestores. No entanto, as evidências apresentadas pela literatura de Finanças Comportamentais sugerem que os usuários, muitas vezes, tomam decisões influenciados por vieses emocionais e cognitivos, o que pode afetar as suas escolhas. Apesar de relevante para proporcionar um entendimento mais amplo sobre o assunto, não foram encontrados estudos que tenham explorado diretamente as possíveis interferências dos vieses comportamentais nas escolhas contábeis dos gestores. Além disso, entre os principais vieses comportamentais existentes, o status quo parece estar diretamente relacionado ao processo natural de escolha dos gestores. Desta forma, o objetivo desta pesquisa é verificar a possível influência do viés do status quo nas escolhas contábeis praticadas pelos gestores, diante de mudanças nas condições de um ativo e em um cenário de ausência de regulamentação contábil específica. Para atingir esse objetivo, foram desenvolvidos dois artigos. No primeiro, foi proposta uma análise qualitativa para verificar a influência do viés do status quo nas escolhas realizadas pelos gestores em um cenário de baixo *enforcement* contábil. Para tanto, foram realizadas entrevistas com gestores de empresas de capital aberto e fechado, abordando-se o tratamento contábil fornecido por eles ao Crédito Acumulado de ICMS. Os resultados sugerem que o comportamento e as respostas dos gestores entrevistados não podem ser explicados, exclusivamente, por meio dos pressupostos da racionalidade e do oportunismo, mas também por uma forte inércia em relação ao tratamento contábil inicial (evidência de status quo). Assim, no segundo artigo, foi realizada uma investigação empírica para verificar a influência do viés do status quo nas escolhas contábeis relacionadas a um ativo sem regulamentação contábil específica, diante de alterações nas condições iniciais desse ativo. Foram analisadas 5.256 empresas brasileiras, durante um período de nove anos, por meio da utilização de análise de dados em painel. Os resultados demonstraram que a escolha contábil anterior de classificação dos tributos sobre o valor agregado afeta a escolha contábil atual das empresas ao longo dos anos (*proxy* para status quo), assim como outras variáveis já apresentadas pela literatura tradicional de Finanças, como: liquidez, tamanho e alavancagem. Sendo assim, a principal contribuição desta pesquisa está em fornecer evidências sobre a influência do viés do status quo na tomada de decisão dos gestores em um ambiente de baixo *enforcement* contábil. Além disso, as conclusões de ambos os artigos sustentam a necessidade de que os determinantes das escolhas contábeis sejam analisados de forma mais ampla, considerando-se tanto os pressupostos da Teoria da Agência quanto da literatura de Finanças Comportamentais. Na prática, espera-se que os resultados contribuam para que os *stakeholders* tenham mais informações disponíveis sobre os determinantes que afetam as escolhas dos gestores, o que pode beneficiá-los no processo de tomada de decisão. O estudo ainda demonstra a necessidade de se desenvolver uma norma contábil específica que padronize o tratamento contábil dado aos tributos sobre o valor agregado.

**Palavras-chave:** Status quo; Finanças comportamentais; Vieses comportamentais; Escolhas contábeis; Tributos sobre o valor agregado; Cenário de *enforcement*; Regulação específica.

## ABSTRACT

STANZANI, L. M. L. **Can the status quo bias help to explain accounting choices?** 2021. 95 f. Tese (Doutorado) – Faculdade de Economia, Administração e Contabilidade de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, 2021.

The mainstream literature on accounting choices is supported by the rational and opportunistic behavior of managers. However, evidence from Behavioral Finance literature suggests that users often make decisions influenced by behavioral biases, which might affect their choices. Despite the relevance of this subject, to my knowledge, there are no studies that have already explored possible direct interferences of emotional and cognitive biases on managers' accounting choices. In addition, among the main behavioral biases explored by literature, the status quo bias seems to be directly related to the natural process of choice. So, the objective of this research is to provide empirical evidence about the influence of status quo bias on accounting choices, under a scenario of lack of specific accounting regulation. Then, to achieve this goal, two papers were developed. In the first one, I proposed a qualitative analysis, aiming to verify the influence of the status quo bias on managers' choices in a low accounting enforcement scenario, which allowed me to understand better and deeply how accounting choices can be influenced by status quo bias. For this purpose, I interviewed managers of public and private companies in relation to the accounting treatment provided by them to the ICMS Accumulated Credit. The evidence suggests that managers' behavior cannot be explained exclusively through the assumptions of rationality and opportunism, but also by an inertial behavior in relation to the initial accounting treatment (proxy for status quo bias). In the second paper, I applied an empirical investigation and verified the influence of status quo bias on accounting choices related to an asset with changing conditions, under a scenario of low accounting regulation, aiming to verify and validate the qualitative evidence obtained earlier. I analyzed 5,256 Brazilian companies, over nine years, using panel data analysis. The results showed that the previous accounting choice applied in the classification of value-added taxes affects the current accounting choice (evidence of status quo bias), as well as other variables, already presented by the traditional literature (e.g., liquidity, size and leverage). Then, the main contribution of this research is providing evidence about the influence of status quo bias on managers' decision-making, adding knowledge to accounting choices' literature. Additionally, the findings of both papers shed light on the need to analyze accounting choices' determinants by considering Agency Theory and Behavioral Finance assumptions in a complementary way. In practice, it is expected that the research will provide more available information about the determinants of accounting choices to stakeholders, which may benefit them in the decision-making process. Additionally, the study also demonstrates the need to develop a specific accounting standard to provide adequate accounting treatment for value-added taxes.

**Keywords:** Status quo bias; Behavioral Finance; Behavioral biases; Accounting choices; Value-added taxes; Enforcement scenario; Specific regulation.

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## 1. A GENERAL INTRODUCTION

The mainstream literature on accounting choices is basically supported by the rational and opportunistic behavior of managers when making a decision, as proposed by Agency Theory (see, e.g., Jensen & Meckling, 1976, Watts & Zimmerman, 1986). However, it is already known that individuals not always make decisions based on purely rational aspects, but they are often influenced by some emotional or cognitive motivation (see, e.g., Tversky & Kahneman, 1971; Kahneman & Tversky, 1979; Kahneman, Knetsch, & Thaler, 1991; Kempf & Ruenzi, 2006; El Harbi & Toumia, 2020).

To my knowledge, there is a lack of studies that have already explored possible emotional and cognitive behaviors into the determinants of accounting choices, despite all the evidence presented by Behavioral Finance literature and the Prospect Theory, developed by Kahneman and Tversky (1979).

Moreover, considering the current understanding about behavioral biases, it is unexpected that accounting choices continue to be treated exclusively as “a decision whose primary purpose is to influence the output of the accounting system in a particular way” (Fields, Lys, & Vincent, 2001, p. 256). Then, the lack of studies that also analyze behavioral biases as possible determinants of managers’ choices makes the research on this area, many times, distant from firms’ reality. This gap is relevant and demands a wider explanation for accounting choices’ determinants, which need to incorporate the knowledge covered by the Prospect Theory.

In this context, among several behavioral biases that can affect manager’s decision-making, one of them seems to be closely related to the natural process of choice: **the status quo bias**. When embedded in this bias, individuals tend to present a kind of inertia and choose to keep the previous choice or one that is closer to it, regardless of whether or not this is the best option (see, e.g., Samuelson & Zeckhauser, 1988).

Although the maintenance of accounting choices over time is desirable -once accounting regulation seeks for comparability over time-, if there is a change in assets’ condition, it is expected that accounting choices reliably reflect the modification in future expectations. Otherwise, the information reported by the company may not be useful and relevant.

Then, the attitude of keeping the same accounting choice over years, even if this is not the most appropriate decision under changing conditions, can be motivated by a non-rational behavior of managers and explained by the status quo bias, as predicted

earlier by Samuelson & Zeckhauser (1988). Furthermore, Samuelson & Zeckhauser (1988) explain that this kind of behavior may be more apparent when individuals are subjected to a wide range of options, as this makes the choice process even more difficult, encouraging a passive and inertial behavior. In the context of accounting choices, this situation might be identified when analyzing a scenario of low accounting regulation, such as the lack of a specific accounting standard to guide managers' decisions more precisely, for example.

So, this research intends to fill part of the gap on literature presented before by analyzing the effect of status quo bias on managers' accounting choices when they are immersed in a scenario of low accounting regulation with changing conditions, since, in this situation, managers may have a greater tendency to present a passive behavior, motivated by the status quo bias. To achieve this goal, the following question needs to be answered: **Can the status quo bias help to explain accounting choices, under changing conditions, in a scenario of low accounting regulation?**

For this purpose, two papers were developed and will be presented in the sequence. In the first one, I proposed a qualitative analysis, aiming to verify if accounting choices can be affected by the status quo bias and to identify other possible variables that may interfere in managers' decision-making in a low enforcement environment. At this stage, I interviewed managers of private and public Brazilian companies, asking about their accounting choices when analyzing an under regulated asset (ICMS Accumulated Credit) and observing their behavior during the interviews. This first step allowed me to identify important variables that may influence managers' decision-making (both rational and behavioral), which was essential to enable the development of the second study.

Then, the second paper sustains an empirical investigation about the influence of status quo bias and other determinants on accounting choices in Brazilian private and public companies, aiming to validate the outputs presented in the first study. This second analysis was also developed considering accounting choices related to an asset with changing conditions and under a scenario of low accounting regulation. So, this time, a quantitative analysis was applied, taking into account the findings and variables identified in the first paper. This is essentially how both papers are connected to each other.

The main contribution of this research is to provide evidence about the influence of status quo bias on managers' decision-making under a scenario of low accounting regulation, expanding the frontier of knowledge on accounting choices' literature. Moreover, the findings support the need to analyze accounting choices in a wider

perspective, not replacing Agency Theory assumptions, but adding knowledge obtained from Behavioral Finance literature.

Although each paper has specific gaps and objectives, both parts are complementary and contribute to a wider analysis of the research problem. The purpose of this General Introduction is to show how both papers are connected, presenting a big picture of the research phenomenon. Section 2 presents the first paper and Section 3 presents the second paper. Finally, Section 4 presents the final remarks of this research.

## **2 STATUS QUO BIAS IN MANAGER'S ACCOUNTING CHOICES UNDER A LACK OF SPECIFIC REGULATION**

### **2.1 INTRODUCTION**

The mainstream literature on accounting choices deals with implications of accounting practicing based on individuals' incentives to manipulate earnings under the assumptions of Agency Theory. According to this perspective, managers are rational individuals that tend to maximize their own interests in every choice, considering a set of available and non-exhaustive range of information (Jensen & Meckling, 1976; Healy, 1985; Simon, 1990; Barth, Landsman, & Lang, 2008; Kouki, 2018). According to Lambert (2001), the arguments used by Agency Theory are attractive because allow researchers to explicitly conflicts of interest, incentive problems and mechanisms of control for managers' opportunistic behavior.

Over the years, studies on accounting choices have presented a lot of evidence that suggest the existence of a rational behavior in managers' decisions. Most of them affirm that managers can manipulate information in order to improve their performance through earnings management and, consequently, maximize their compensation contracts (Watts & Zimmerman, 1978; Healy, 1985; Holthausen, Larcker, & Sloan, 1995). Because of it, a range of accounting standards and mechanisms of enforcement are often implemented as a system of control that aims to align the interests between managers and principals (Holthausen, Larcker, & Sloan, 1995; Watts & Zimmerman, 1986; García-Meca, & Sánchez-Ballesta, 2009; Manzano & Conesa, 2014; Kouki, 2018; Harris, Karl, & Lawrence, 2019), especially in public companies, where agency conflicts are more evident.

On the other hand, evidence from Behavioral Finance literature and Prospect Theory suggest that individuals do not always make rational decisions, but can present behavioral biases that might affect their choices. According to Andrikopoulos and Vagenas-Nanos (2017, p. 102), "one of the unrealistic assumptions of neoclassical models is that such individuals are fully rational". In this context, Tversky and Kahneman (1971) and Kahneman and Tversky (1979) have developed a strong critique to the Traditional Theory, questioning its real applicability as a fundamental model of decision-making under risk and suggesting that decisions can also be affected by physiological conditions of the individual. Since then, many studies have been developed in order to understand

the influence of behavior aspects on investors' decision-making and empirical evidence have suggested that some cognitive and emotional disfunctions, called behavioral biases or heuristics by literature, may affect individuals' decision process and choices (Kahneman, Knetsch, & Thaler, 1991; Baker & Nofsinger, 2002; Kempf & Ruenzi, 2006; Messier, Quick & Vandervelde, 2014; Cardon, 2019; El Harbi & Toumia, 2020).

Therefore, despite the relevance of previous findings suggesting the influence of cognitive and emotional factors on decision-making, to my knowledge, there is a lack of studies dealing with the possible influence of behavioral biases on accounting choices, which suggests a large gap in literature.

So, the explanation about accounting choices must be wider. The motivations of accounting choices need to take into account an important hypothesis that is not being considered by literature until now: the possibility that managers' choices are not always rational and opportunistic, but motivated by some fear or emotional limitation.

In this context, among the numerous behavioral biases that literature on Behavioral Finance have already identified, one of them seems to be directly related to the natural process of choice and may affect accounting choices, which is the status quo bias. According to Kahneman, Knetsch and Thaler (1991) and Pompian (2006), when in front a set of available options to elect, individuals may prefer things to stay relatively the same, choosing the option that keep their current situation. This kind of behavior results from an inertial position that is very related to managers' loss aversion and can be explained by an emotional bias called status quo. Under this perspective, there must be a strong stimulus for the individual gets away from this initial state of inertia, which is very close to what would be the enforcement existent in firms' reality (Kahneman, Knetsch, & Thaler, 1991; Pompian, 2006).

In Brazil, I can be benefited by an asset that is not completely covered by current IFRS accounting standards: a specific value-added tax credit called ICMS Accumulated Credit. I hope I will be able to explore accounting choices related to this asset, which requires a change in its initial condition, and analyze possible evidence of status quo bias on managers' decision, using an extreme case of lack of specific accounting regulation, which implies in a lower level of enforcement for companies and enables more flexible accounting choices.

In this context, this study expects to answer the follow question: **can the low accounting enforcement favor the rising of status quo bias in managers' accounting choices related to an asset with changing conditions?** There is little evidence in the

literature about the influence of behavioral biases on managers' decision-making. So, the objective of this research is to understand managers behavior under an environment of lack of specific accounting regulation, analyzing if this scenario can stimulate the presence of status quo bias in managers accounting choices related to an asset with changing conditions.

To achieve this goal, I developed qualitative research using both deductive and inductive approaches. I focused on semi-structured interviews with managers of private and public Brazilian companies. The choice of the cases was intentional and focused on the depth of the interview contents, much more than the number of interviews. I also used triangulation's technique by capturing auditor and creditor analyst's perception about managers' behavior.

This study aims to present theoretical and practical contributions to literature. First, I hope to shed light on the existence of status quo bias on accounting choices made under the perspective of under regulated assets and low enforcement environments. Thus, the findings may complement what Agency Theory predicts, suggesting that Agency Theory and Behavioral Finance literature need to be analyzed together for a better understanding about managers' behavior under the context of accounting choices.

In a practical perspective, it is relevant for stakeholders realizing the factors that interfere in recognition, measurement and disclosure of a under regulated asset, once they use accounting information to make decisions. Moreover, regulators must improve their understanding about manager's behavior under a lack of specific accounting standards, so they can assess the need of an asset standardization, emphasizing the usefulness and reliability of this information for stakeholders. In the case of this specific fiscal asset, the results support the need to standardize the accounting treatment of the ICMS Accumulated Credit.

## **2.2 PREVIOUS LITERATURE**

The literature on accounting choices is sustained especially on the assumptions presented by Agency Theory and Firms' Contractual Theory, both immersed in a proposal of individual's efficiency and rationality. According to Fields, Lys and Vincent (2001, p. 256), "an accounting choice is any decision whose primary purpose is to influence (either in form or substance) the output of the accounting system in a particular way". Based on this definition, this research area uses economics and contractual aspects to provide

explanation for manager's behavior under accounting choices, seeking to increase knowledge about the determinants in terms of recognition, measurement and disclosure available options (Watts & Zimmerman, 1990; Holthausen & Leftwich, 1983; Fields, Lys, & Vincent, 2001; Francis, 2001; Murcia, Souza, Wuergues, & Duarte, 2013; Nobes & Perramon, 2013; Pinto, Martins, & Silva, 2015; Silva, Martins, & Lemes, 2016).

The basis of traditional economic theory is on the assumption that the agent is utility maximizer and always makes rational decisions, choosing the option that gives him more satisfaction and minimum risk. In this expected environment, individuals have boundedly rationality and risk aversion, which suggests that organizational life and decision-making are process basically guided by manager's self-interest and opportunistic behavior (Jensen & Meckling, 1976; Eisenhardt, 1989).

Despite the assumption of rationality in manager's decision-making, it is important to emphasize that agent makes decisions based on the idea of "bounded rationality". Simon (1990) affirms that this term is used to designate rational choices that consider the cognitive limitations of the decision-makers, seeking to bring economics theories assumptions closer to market's reality. Under this environment, the agent decides to make an accounting choice considering a set of available and non-exhaustive alternatives, but still from a perspective of managers' rationality.

On the other hand, evidence provided by the literature on Behavioral Finance and the Prospect Theory have suggested that the concept of bounded rationality may not be enough to explain accounting choices. Kahneman and Tversky (1979; 2013) sustained a strong critique of expected utility theory as a fundamental model of decision used by literature. They proposed an explanation for individual's behavior using psychological aspects of human-being, breaking the paradigm that supports all the Traditional Finance Theory, where manager always presents a rational and opportunist behavior. According to Shiller (2003), Behavioral Finance brings evidence that stands in notable contradiction of efficient markets. So, it must be considered by studies when analyzing managers decision-making process.

Over time, the number of studies in Behavioral Finance have grown significantly. The literature presents some evidence of manager's non-rationality in decision-making, that are translated through emotional and cognitive behavioral biases. So, most of the studies in this area seek to find explanation and determinants of investors and managers' behavior through the influence of biases in their decision-making process (see, e.g., Baker & Nofsinger, 2002; Bailey, Kumar, & Ng, 2011; Lucena, Fernandes, & Silva, 2011;

Goldfarb, Amaldoss, Brown, Chen, Cui, & Yang, 2012; Hoffmann & Post, 2014; Martins, Lima, & Silva, 2015; Bakar & Yi, 2016; Cardon, 2019), opposing the arguments brought by Traditional Finance Theory- still dominant in mainstream research.

Among the main biases already identified by literature, the most studied and one of the first verified is the loss aversion bias. It was proposed by Kahneman and Tversky, in 1984, and suggests that people are more susceptible to avoid losses than to acquire gains (Pompian, 2006). Since then, a lot of biases were proposed and explored by literature, among them: overconfidence, anchoring, representativeness, framing, conservatism, self-attribution, optimism and status quo.

The loss aversion bias comes from the Prospect Theory and suggests that people avoid discarding unprofitable investments with little expectation of future gains, because they do not want to perform those losses. Thus, in classical cases of loss aversion bias, investors avoid selling stocks that have not performed well, but tend to sell quickly those that were profitable (Kahneman & Tversky, 2013; Pompian, 2006; Isidore & Christie, 2019). Bringing this behavior to accounting choices' context, an example of loss aversion bias can be the managers' resistance to recognize an impairment loss or to measure an asset by its fair value, because they do not want to accept that any loss can be irreversible.

Moreover, Kahneman, Knetsch and Thaler (1991, p.197) affirm that “one implication of the loss aversion is that individuals have a strong tendency to remain in the status quo, because of the disadvantages of leaving it loom larger than advantages”. So, although not much explored by literature, the status quo bias may probably also be present in manager's decision-making, as this bias is directly related to the need to make choices.

Status quo bias was first identified by William Samuelson and Richard Zeckhauser, in 1988, and operates in individuals who prefer things to stay relatively the same, even having a set of options to choose (Pompian, 2006). So, status quo can be classified as an emotional bias and refers to the finding that a choice is more desirable if it is designated as the “status quo” one, i.e., when the option elected by the individual keeps the same position existing before. It can also be compared to the physics concept of inertia, which suggests that individuals tend to remain in “rest” unless they have some external strong incentive that forces themselves to leave their current state (Samuelson & Zeckhauser, 1988; Pompian, 2006).

Over the last decades, several studies have sought to identify the influence of the status quo bias in different contexts, expanding the explanations about decision-making (see, e.g., Masatiouglu & Ok, 2005; Saurin, Varejão, Janeira, Costa, & Prates, 2015;

Kempf & Ruenzi, 2006; El Harbi & Toumia, 2020), that earlier was strongly based on the premise of individual's rationality.

From a theoretical perspective, the limitations on the individual's rationality assumption became increasingly evident over the years. Then, Masatiouglu and Ok (2005) proposed a rational choice theory that allowed for the presence of a status quo bias. According to the authors, the study was motivated by the empirical findings showing the relevance of one's current situation on her choices and, consequently, the need to extend rational choice theory to consider this behavior. Later, Dean, Kibrish and Masatliogluc (2017) expanded economic models by demonstrating that both attention and psychological constraints are important to explain the presence of status quo on individuals' choice. These studies tried to incorporate the status quo bias into the rational model of decision-making.

In a practical perspective, studies have been concerned with demonstrating the impact of the status quo bias on individuals' decision-making. Hunton, Mauldin and Wheeler (2010) analyzed the effects of monitoring in managers' behavior, aiming to explain why continuous monitoring appeared to drive such risk aversion. The authors found that decisions made under continuous monitoring may increase the perceived likelihood that managers' decisions would be detected and, then, must be justified to their superiors. So, under a continuous monitoring, managers preferred to keep the current level of investment, instead to increase or decrease it, what characterizes a status quo decision.

In the same perspective, Saurin et al. (2015) intended to verify if there was a relation between the status quo bias, risk profile and quantitative skills. So, they developed a survey with graduate students and found that risk prone respondents seem not to have been affected by the status quo bias, but the opposite behavior was verified in other respondent risk profiles. Besides that, the presence of status quo bias demonstrated to be predominant, suggesting the susceptibility of individuals to this bias, which can compromise important decisions within an organization (Saurin et al., 2015).

Additionally, Messier, Quick and Vandervelde (2014) examined whether auditors presented a status quo bias when interpreting accounting standards, even if the current scenario allows a different decision. They verified that auditors were more likely to follow the prior year treatment when judging a current year scenario, regardless the adequacy of this treatment, which suggests the influence of status quo bias on auditors' decisions. However, the paper also suggested that the accountability can decrease, or even mitigate, the status quo bias on auditors' position. According to them, if they are "under conditions

of higher process accountability, auditors may not be affected by the way a similar accounting event was treated in the prior year” (Messier, Quick, & Vandervelde, 2014, p. 71).

At the organizational level, Kempf and Ruenzi (2006) examined the influence of status quo bias (SQB) in the mutual funds market and identified a positive influence of previous growth on current growth, which suggests the presence of SQB. Moreover, there was evidence that the number of available alternatives increases the SQB, which confirms the findings presented by Samuelson and Zeckhauser (1988) earlier. In the same perspective, El Harbi and Toumia (2020) investigated the influence of SQB on venture capital (VC) investments and found that the current choice of investment depends positively on the previous choice. These results indicate that Agency Theory cannot explain totally venture capital investment’s decisions, either.

Despite the growing number of studies that propose a wider analysis of the decision-making process, considering behavioral biases as variables of interest in economic decisions, the literature on accounting choices does not seem to consider these variables as possible determinants for managers’ accounting choices. However, considering the results arising from the expansion of Behavioral Finance literature, ignoring the influence of behavioral biases is unrealistic, as already suggested by Andrikopoulos and Vagenas-Nanos (2017).

Based on the arguments brought by Samuelson and Zeckhauser (1988), in decisions involving accounting choices, for example, managers may prefer to choose the option that keep an asset recognized in current period (if it represents the initial recognition), even if the amount can probably be recoverable in long-term, unless there is a stimulus that forces him to leave this passive behavior and transfer the amount to non-current assets, or even do an impairment test in this asset.

Thus, it is possible to imply that, in order to status quo bias does not affect manager’s accounting choice, there must be an incentive, pressure and enforcement stimulating managers to stay away from the expected inertia behavior. Otherwise, he will prefer things to stay as they are, even it has a cost (Samuelson & Zeckhauser, 1988; Pompian, 2006). This necessary stimulus can appear from different kind of enforcements, as an accounting standard, stakeholders demand from information or corporate governance, for example.

Thereby, in the absence of an accounting enforcement, it is expected that the status quo bias may become more evident. Rules or principles, for example, must avoid some

undesirable behaviors and direct managers actions, because it forces choices that may demand necessary changes, as an amount provisioning, an impairment loss or even a change of classification.

Another way to avoid status quo behavior may be a strong demand for information from stakeholders. In public companies, for example, investors' figure plays an important role increasing the quality of information in accounting standards. So, investors' demand for information can act as a mechanism of information quality control, forcing managers to choose the options according to market's expectation.

Thus, in a scenario of low enforcement, it may be expected that managers choose to keep the same choice or parameters over the years. The low enforcement supports this bias on managers' behavior and, even the output can also be explained by Agency Theory literature, the motivation cannot be explained by its assumptions, as it emerges from managers' non-rational behavior of being in a status quo position.

In this context, the lack of enough enforcement may favor the rising of status quo bias in managers' decision-making, affecting their accounting choices and decreasing the quality of accounting information. Therefore, aiming a wider explanation for accounting choices' determinants, the Prospect Theory and Behavioral Finance assumptions may help to explain managers' decision-making under uncertainty and complement the rationality assumption, which has been strongly sustained by Agency Theory over the last decades.

### **2.3 RESEARCH DESIGN**

I intend to seek evidence that managers do not always present a rational behavior if there are a range of options and a low level of enforcement. More specifically, using the concepts presented by Behavioral Finance literature and the Prospect Theory, I want to verify if managers present a certain inertia in this situation, which can probably be explained by status quo bias.

To achieve this goal, a qualitative approach was proposed. As a research strategy, I conducted case studies involving private and public companies, aiming to confront situations involving different levels of enforcement in relation to firms' structure and stakeholders.

In order to observe managers' decision under the context of accounting choices, I chose an asset without specific accounting regulation to analyze the possible choices

related to it. In Brazil, I can be benefited with a particular case of an asset that is not completely covered by current IFRS accounting standards: a specific value-added tax credit called ICMS Accumulated Credit.

The ICMS is a Brazilian value-added tax that is applicable by the States to transactions involving Goods Circulation, Interstate and Intermunicipal Transport and Communication Services (i.e., it is inserted in almost all stages of the production and commercial chain). Because it is a value-added tax, there are recoverable credits on the inflows and debits on the exits of products from the companies. In general, it is expected that there will be payable taxes after the confrontation between debts and credits, but there are specific situations that generate accumulated credits, especially when the outputs are not taxed.

Then, the ICMS Accumulated Credit is a type of value-added recoverable fiscal asset that can emerge in some situations (i.e., it is a particular case of ICMS credit), like: when company's operation is exempt from ICMS taxation on sales, but presents recoverable ICMS on purchase; or even when the firm presents a lower ICMS taxation on sale than on purchase. In some of these situations, the legislation allows the maintenance of ICMS credit embedded in the purchase moment, even if the firm will not be compensated with future ICMS debits. Then, this credit results in a fiscal asset that can be recoverable by the company, but only if the firm is capable to meet government requirements.

Nevertheless, it is very common for companies to be unable to recover, at least, part of this credit, either due to the difficulty in proving the origin of the entire accumulated amount or even for not making the request for reimbursement of this credit with the government and also not being able to compensate the accumulated amount with ICMS debts that may arise from its normal operation. On the other hand, if government authorizes the credit recovery, there are many uses that the company can attribute to the accumulated fiscal amount, including: sale at a discount to another company, acquisition of fixed assets and suppliers' payment.

In a first moment, the initial recognition for this asset is in current period. However, there is no specific accounting standard to provide adequate treatment for this fiscal asset, which means that managers need to use the principles presented by the Conceptual Framework or make an analogy with other accounting standard (IFRS) in their next choices involving classification, measurement and derecognition of the amount. Then, considering the uncertainty behind this asset after the initial recognition, it is not

known whether the amount recognized will be able to be effectively recovered or not. Furthermore, in relation to measurement, the difficulty lies in defining the appropriate event to do impairment tests.

Therefore, I opted to use this asset to support my analysis, especially because of the wide range of possible choices, the higher uncertainty involving the accumulated amount and the lower accounting enforcement (recognition, derecognition, classification, measurement), which allow managers more flexibility to make their choices. Moreover, I believe that this specific case in Brazilian context may help to highlight the status quo bias, making managers' non-rational behavior possibly more evident.

### **2.3.1 Case studies**

The idea embedded behind this methodology is to capture manager's motivation for recognition, measurement and disclosure of the ICMS Accumulated Credit, and not only the output of the decisions taken at institutional level. In this context, I also intend to verify if managers of private firms present a different behavior compared to a public firm, when disclosing information about this specific fiscal asset, because of the probably lower level of enforcement presented in these companies. Additionally, this analysis will allow the identification of variables that can be used to develop a theoretical model which considers behavioral biases in decision-making context. More specifically, it can enable future studies to consider the influence of status quo bias in accounting choices in their econometric models.

The cases' choice was intentional, because I needed to find private firms that presents (or have already presented) ICMS Accumulated Credit in their financial statements. Even that, I chose to focus on the depth of the interview contents, much more than the number of interviews, once the objective is to identify strong empirical evidence of non-rational behavior in manager's decision-making. This analysis requires a deeper observation of each case study, since I need to observe and make the link between managers' answers and their observed behavior during the interviews.

In order to control more precisely enforcement issues related to manager's decision-making, I opted to analyze companies with different realities, which makes me to choose three firms to develop the case studies: two private firms and one public firm (control case). Table 2.1 presents the characteristics of firms and managers I have

interviewed. It is important to emphasize that all the interviewees had a similar occupation in the companies, presenting the necessary knowledge to answer the questions.

The public firm will be used as a control case in my analysis, once it makes possible to observe different levels of enforcement and incentives between public and private firms, which may interfere in the decision-making and must be captured. In a first moment, I expect that the Agency Theory has a greater influence on public companies rather than on private ones, due to the high enforcement applied by investors, even in a scenario of low accounting enforcement.

Table 2.1- Managers and firms' characteristics.

<b>Managers and firms' characteristics</b>				
<b>Firm</b>	<b>Sector</b>	<b>Gender</b>	<b>Function</b>	<b>Classification</b>
1	Retail	Female	Fiscal Coordinator	Private
2	Industry	Male	Tax Manager	Private
3	Industry	Male	Accounting and Tax Manager	Public

So, this study focusses on semi-structured interviews with managers of companies that present different characteristics and incentives. Table 2.2 presents the protocol of this research. The protocol is based on the directions presented by Yin (2010) and presents the steps of methodological development, aiming that other researcher can use it to replicate the research. Moreover, I used the guiding questions presented in protocol to direct the interviews, but other questions were asked as I realized that it was important based on interviewees' answers.

Table 2.2- Research protocol.

<b>Research Protocol</b>	
<b>Validation techniques</b>	Triangulation, Content Analysis and Competing Cases Analysis
<b>Cases</b>	Intentional
<b>Number of interviews</b>	3 Case studies- focus on depth and not on quantity of interviews
<b>Qualitative analysis objective</b>	Expand/develop concepts and find variables from research evidence
<b>Research approaches</b>	Deductive- analysis of the applicability of theories and concepts in a specific scenario- and Inductive- expands the explanation for the phenomenon based on the observation of the behavior presented by managers, auditor and credit analyst.
<b>Generalization of results</b>	Analytical
<b>Method of data collect</b>	Semi-structured interviews
<b>Data collect tool</b>	Voice recording
<b>Guiding questions</b>	APPENDIX A

The interviews were recorded using a voice recorder. In addition, I hold a consent form and deliver it to each manager, asking for interviewees' permission to record the conversation, making it clear that the interview and the firms' identification would not be disclosed for public.

To develop the guiding questions presented in Appendix A, I have observed the practical characteristics involving the fiscal asset, as well as the recognition and measurement requirements presented by the IASB Framework. Table 2.3 presents expected answers considering an environment explained only by Agency Theory or Prospect Theory and Behavioral Finance, separately.

Because of investors' enforcement, I expect that managers of private companies will likely present a higher level of status quo bias when compared to managers of public ones. However, I believe both theories will also complement each other in some moments.

Table 2.3- Expected answers: Agency Theory and Behavioral Finance literature.

<b>Criteria</b>	<b>Expected Answers with Agency Theory prediction: Public Company</b>	<b>Expected Answers with Behavioral Finance literature prediction (status quo bias): Private Companies</b>
<b>Classification</b>	Manager tends to classify the accumulated credit in current assets to show better performance, but investor's enforcement avoids this behavior.	Manager says that it is classified in current assets because the initial recognition was in current assets and he believes there is no reason to change the classification.
<b>Measurement</b>	Manager tends not to do an impairment test in the accumulated credit, as this would reduce the asset and the profit, but the investor's enforcement forces him to do the test, even no loss would be recognized by company.	Manager avoids changing the amount of the asset by performing an impairment test in the accumulated tax credit, justifying that there are no specific accounting principles requiring and guiding the test.

The questionnaire was constructed with the purpose of capturing and explaining the behavior presented by managers according to Agency Theory and Behavioral Finance principles. In addition, the results were analyzed based on the adherence of the managers answers to the theories presented above.

### 2.3.2 Validation techniques

Validation techniques are very important to show internal and external research validity and also to confirm the proposed constructs. Table 2.4 is based on the research proposed by Marques, Camacho & Alcantara (2015), which they have suggested some criteria to analyze the methodological rigor in case studies.

Table 2.4- Criteria for the analysis of methodological rigor in the case studies.

Categories	Criteria	Authors	Research application
The study object	Does the study seek to understand a phenomenon in its real-life context?	Yin (2010); Eisenhardt (1989); Cepeda and Martin (2005)	Yes. This research is fundamental to capture and understand managers' behavior in a scenario of lack of specific accounting regulation and low enforcement. Then, I cannot observe the phenomenon using another methodological strategy, but questioning managers about the object that I am interested in.
	Why do you choose this strategy?	Yin (2010); Eisenhardt (1989); Cesar, Antunes and Vidal (2010)	The strategy was designed to explore the phenomenon as a prior analysis of the research problem and managers' behavior. Moreover, it will be very important to identify the new variables that can affect managers decision-making.
	Is there a connection between the phenomenon and the context at some research stage?	Yin (2010)	Yes, I need to understand managers behavior under an environment of lack of specific regulation and low enforcement, that is why I have chosen firms that present ICMS Accumulated Credit in their operation and different levels of enforcement (public and private companies).
	What is the type of question raised in the study?	Yin (2010); Godoy (2006), Cepeda and Martin (2005)	Can the low accounting enforcement arise the status quo bias in manager's accounting choices, considering changes in asset's conditions?
	What is the case study type?	Yin (2010); Eisenhardt (1989)	Explanatory case study.
	Is the case analyzed representative of the study objective?	Godoy (2006); Yin (2010)	I chose to develop multiple case studies, because I want to capture different realities in the companies. This is the motivation for choosing public and private firms.
The data collection	Are there multiple sources of evidence?	Eisenhardt (1989), Yin (1981), Godoy (2006), Cesar, Antunes and Vidal (2010)	Yes, in addition to evidence obtained through interviews with managers, I interviewed other stakeholders to provide triangulation and sustain the findings in this stage: an auditor and a credit analyst.
	Is there an explanation for the data collection method, including the steps followed, when they occurred, where they occurred, with whom, and in what way?	Yin (2010), Cesar, Antunes and Vidal (2010)	The interviews occurred in the interviewee's work place and were recorded by a voice recorder. In three cases, the interviewees chose to perform the interview by skype or phone call.

	<b>Is there any report or disclosure regarding the research protocol?</b>	Yin (2010)	The research protocol is presented in Table 2.2.
<b>The data analysis</b>	<b>Is there an explanation for the method of analysis?</b>	Godoy (2006); Yin (2010)	The data will be analyzed based on managers' answers and on the observation of their behavior during the interview. In addition, the triangulation will be very useful to validate and bring more credibility to the findings.
	<b>Were theory (single-case study) or replication (multiple-case study) used as a basis for the analysis when conducting a deductive study?</b>	Yin (2010), Otley and Berry (1994)	The data analysis was developed using the concepts of Behavioral Finance literature, Prospect Theory and Agency Theory as a support. So, I intend to support all the results using these theories.
<b>The results</b>	<b>Were contributions to knowledge generation reported in comparison to previous studies?</b>	Cesar, Antunes and Vidal (2010), Otley and Berry (1994)	Although it is not possible to generalize the results, I could realize that managers present a non-rational behavior when they are under an environment without specific accounting regulation and it cannot be explained by Agency Theory assumptions. This non-rational behavior can possible be related to a status quo bias and it was not considered by accounting choices literature in this context until now.
	<b>Does the study warn about issues requiring further research?</b>	Cesar, Antunes and Vidal (2010)	This qualitative analysis is necessary to verify the relation between the low enforcement and the status quo bias in managers' behavior. However, it presents some limitations, which can be filled by future research. This point will be better discussed in the next topics.

Source: Based on Marques, Camacho & Alcantara (2015).

The most important validation technique used in this paper is the triangulation. According to Marques, Camacho e Alcantara (2015) and Martins (2006), a case study is usually non-replicable, then, its reliability will be primarily demonstrated by data triangulation, which is a result of using many data collection tools and evidence from different stakeholders, aiming to get more creditability to research findings. This technique allows me to see the phenomenon from different perspectives, improving internal and external validity of this study.

In this paper, the triangulation will be based on auditor and credit analyst's perspectives. First, I did another research protocol (Table 5- Appendix B) to capture auditor's perception about the phenomenon. This another protocol is composed of semi-structured questions and was divided into two parts. In the first part of the interview, the

questions sought to identify the auditor's perception about manager's behavior under a lack of parameters for analyze the ICMS Accumulated Credit amount. In sequence, the questions embedded in the second block of the interview sought to capture the auditor's perception about the audit process of this asset and about the auditor's behavior in the absence of clear accounting parameters. The findings of this step are presented in the next topic.

In a second moment, I performed the same procedure for the interview with a credit analyst, developing another research protocol (Table 6- Appendix C). I also segregated the creditor interview's protocol into two parts. In the first one I focused on credit analyst's perception about managers' behavior. Then, in the second part of the protocol, I developed questions about the credit analyst's perspective in relation to the financial risk linked to this asset. These findings are also presented in the next topic.

## 2.4 RESULTS AND DISCUSSION

### 2.4.1 General characteristics and main differences between companies

I have interviewed three managers of different companies: two private companies and one public company (control case). All the companies present, or have already presented, ICMS Accumulated Credit in their balance sheet over years, but each one with its peculiar characteristics. For a didactic purpose, private companies' managers will be called "Manager 1" and "Manager 2", and public company's manager will be called "Manager 3". Then, firms 1 and 2 are private companies and firm 3 is a public one.

Table 2.5 presents a summary description about firms' operation and its characteristics.

Table 2.5- Cases description- presentation of the main characteristics observed in the companies.

CASES DISCRPTION	PRIVATE COMPANIES		PUBLIC COMPANY
	FIRM 1	FIRM 2	FIRM 3
<b>Does the company have, now, value added tax accumulated in its balance sheet?</b>	Yes	Yes	No, but it did in the past and probably will have in the future, again
<b>Is the accumulation of ICMS credit recurring? What is the average amount of credit generated monthly / annually by the company?</b>	Yes, almost R\$ 40,000 per month	Yes, almost R\$ 200,000 per month	It was recurring and it will start to be, again (according to the manager)

<b>Did the company claim for government certification for this amount?</b>	Yes	Yes	Yes, but only for a small part of the amount
<b>Which is the amount of ICMS accumulated credit that the company presents, or has already presented, in its balance sheet?</b>	R\$ 2 million	R\$ 18 million	R\$ 20 million
<b>Did the company get the government certification of this amount?</b>	Yes, but only a part of it, until now	No, all the amount was rejected by government	Yes (referent to the little amount claimed)
<b>Where and how does the company use this accumulated credit? What is the destination given to this asset when it is approved?</b>	Sale of the credit with discount to another company	Not applicable	Sale of the credit with discount to another company
<b>Does the company have legal proceedings involving ICMS?</b>	Yes	Yes	No
<b>Which of the two methods of ICMS Accumulated Credit requirement was used by the company?</b>	Simplified	Simplified	Complete (costing method)

Obs.: The table is filled by the managers' answers and it does not represent my opinion about the interview and managers' behavior.

In both Firm 1 and Firm 3, the transaction that originates the accumulated credit is the tax exemption of its products in sales' moment. So, companies purchase raw material with embedded ICMS credit, generating a tax asset recognized in its balance sheet, but firms cannot use this amount to pay ICMS debits, since its sales are not taxed. In the case of Firm 2, the operation that generates credit is related to differences in the rates and in the calculation basis of the ICMS in the moments of raw material's purchase and products' sale, causing the accumulation of the tax asset, too.

Firm 1 and Firm 2 have claimed for the government certification for all the accumulated fiscal asset amount. On the other hand, Firm 3 claimed only for R\$ 800,000, referent to a specific operation with diesel oil. The public firm's manager explained that it was difficult to get the certification and he was afraid to get a fine during a government inspection, so the firm have decided to change its operation to compensate almost R\$ 20 million of "ICMS Credit". This change in the operation took 4 years to affect cash flows projection and to get impact in the fiscal asset, but the company was able to use the entire amount related to the ICMS credit to pay ICMS debits that arose.

Both Firm 1 and Firm 2 had problems to obtain the government certification. In Firm 1, a part of the credit related to the subsidiary was certified. However, the company headquarters was not able to recover this value yet. In case of Firm 2, no amount was

released by the tax authorities for company's use. These two companies present legal proceedings involving ICMS issues, which explains the non-return of resources by the tax authorities until the interview.

In relation to managers' answers analysis, it is important to emphasize that I found some divergences between the attitude of private and public firms' managers. It is possible to observe that the public company, apparently, shows a different behavior compared to private ones. Based on managers' answers, private companies have presented two important attitudes in common: both does not test the recoverability of the fiscal asset and keep all the amount recognized in current assets. On the other hand, Manager 3 told that this fiscal asset was recognized in the non-current assets, once its recoverability would occur in a period higher than a year (i.e., presenting a rational explanation for his classification choice, as expected).

Another different behavior between the firms is that private companies claimed for the ICMS recoverability by the simplified method, while the public one had used the costing method. This last one is more difficult to be used, because the firm must present a perfect costing control in their system, from precise control of the raw material to the output of the final product.

In addition, I have observed that Manager 3 tried to present more concern in showing that the company gives the appropriate treatment for the asset and that he has a conservative perception about the subject, besides the lack of specific regulation covering the asset. On the other hand, managers of private companies were more comfortable to deal with the questions and to expose that, in fact, they treated the asset in a way that did not fit all conceptual structure guides (keeping the amount on current assets, for example), due to the subjectivity involved in this fiscal asset.

This situation was expected, once, according to literature, the demand for information tends to be stronger in a public company, because of the firm's accountability involving its main stakeholders: the investors. However, during the interview, I could observe that Manager 3 said somethings that were contradictory, opposing what he thinks about the correct treatment and what, in fact, he did in a similar situation.

When asked about what he would do in a situation of requesting credit from the government, since there is uncertainty about the recoverability of this asset, the respondent answered that he would be very conservative and do the impairment of the respective amount. In manager's words: "... *I would do an impairment! Then, after 4*

*years, if a return of the government comes and it says that 40% will not be release, [...] then I would reverse the amount [...] I would be very conservative (in this situation)”*

However, latter, when we were talking about auditors’ questioning in relation to the firm’s fiscal asset recoverability, he said: *“The moment we became able to monetize the credit was a relief, because I could not take it any longer [...] I had no arguments anymore.”* He added, *“[...] we had to justify the projections, even though we knew that deep down, those projections were at risk of not being realized”*, suggesting that there was reasonable doubt about the recoverability of that fiscal asset, but it was ignored and firm kept the fiscal asset amount in non-current assets over 4 years, without recognizing any impairment loss.

This behavior can be derived from the concern with company’s image, which appeared to be much stronger during the interview with Manager 3, if compared to the interviews realized with private companies’ managers. Possibly, the difference in managers’ behavior can be explained by the fact that investor’s enforcement has greater impact on manager’s performance when compared to the enforcement applied by other stakeholders (i.e., creditors, auditors etc.).

## 2.4.2 Status quo evidence from managers’ interviews

In this topic, I brought some evidence of the status quo behavior based on managers’ answers. Table 2.6 reports some excerpts from manager’s speeches during the interview with a public company manager, that was treated as a control case in this research, representing an environment with high enforcement provided, specially, by investors. Table 4 (Appendix A) presents the questions asked to the manager, which seek to identify the accounting treatment (classification and measurement) provided for ICMS Accumulated Credit. For didactic purposes, it is important to reiterate that I will appoint the public company’s manager by Manager 3.

Table 2.6- Public company analysis.

CRITERIA	ASPECT	MANAGER’S ATTITUDE	MANAGER’S SPEECH AS EVIDENCE
Classification	Current classification	Manager 3 has classified the amount in non-current assets during 4 years before the credit being used by the firm.	<i>“All (the amount) was classified in non-current assets, because I do not expect to recover the amount on short-term. There was no segregation [...]”.</i>

	<b>Asset segregation</b>	All the amount was classified on non-current assets, because the firm does not expect to use the amount in short-term.	
	<b>Recognition</b>	The credit was recognized at the raw material purchase's moment in current assets and, then, it was transferred to non-current assets.	<i>"All (the amount) was classified in non-current assets, there was no segregation"</i> .
<b>Recognition and Derecognition</b>	<b>Derecognition of the non-recoverable amount</b>	Manager did not claim for government certification, but kept the amount in non-current assets because firm have tried to change the operation to consume it in long-term and not to accumulate ICMS credit anymore.	<p><i>SPEECH 1: "In this scenario I would make an analogy with a contingent asset ... it becomes an asset only when it is certain that I am entitled to receive this amount.... So, being conservative, I would not keep anything in the asset until a government position or I would keep only a little part of the amount on current assets". "I would be very conservative...keep the balance clean"</i>.</p> <p><i>SPEECH 2: "The moment we became able to monetize the credit it was a relief, because I could not take it any longer [...] I had no arguments anymore. [...] we had to justify the projections, even though we knew that, deep down, those projections were at risk of not being realized. [...] the credit's compensation was something unexpected"</i>.</p> <p><i>SPEECH 3: "I only do the write-off when the money was deposited in the account"</i>.</p>
	<b>Types of credit</b>	Small part of the credit was recoverable by government certification. The remaining part stayed in firm's assets until be recovered by ICMS debits, 4 years later.	<i>"We asked only for R\$ 800,000 relative to a simple operation of diesel oil" (firm presented more than 20 million in balance sheet).</i>
	<b>Amounts</b>	R\$ 800 thousand were required to government's certification; R\$ 20 million were not required and stayed in balance sheet.	<i>"Luckily, we were able to change the operation and use the asset's credit (20 million) to compensate ICMS debits (after 4 years)"</i> .
<b>Measurement</b>	<b>Impairment test frequency</b>	Manager had performed an impairment test based on future sales projections, but no more parameters were used. However, no write-offs or impairment loss was recognized.	<p><i>SPEECH 1: "We have to justify the credit in our balance sheet with projections, otherwise we have to do an impairment of the amount"</i>.</p> <p><i>SPEECH 2: "Luckily, we were able to change the operation and use the asset's credit (20 million) to compensate future ICMS debits (after 4 years)"</i>.</p>

<b>Destination and credit's use</b>	The few certified parts of the credit were sold by the firm to another firm. There was a revisable discount in this kind of sale operation, but there was no change in asset's measurement.	<i>"We sold the credit and the consulting firm found another firm interested to buy our certified credit"</i>
<b>Need for an accounting standard</b>	Manager affirms that a specific accounting standard is not necessary. He believes that IFRS 9 is enough to get parameters about accounting treatment for this asset.	<i>"We could make an analogy with IFRS 9, because it (the ICMS Accumulated Credit) is a financial asset in its essence. So, I can verify asset's recoverability through the parameters brought by the standard. I do not think that is necessary a standard about something so specific".</i>

In relation to classification criteria, Manager 3 justifies the non-current classification of the fiscal asset by the expectation that the credit would be recoverable on long-term, presenting a rational and expected answer for the question. He complements affirming that company did not claim for government certification for all the credit in balance sheet, because of the difficulty of the process, but he has changed firms' operation aiming to compensate the credit with possible new future debits. Then, managers' attitude can be easily explained by Agency Theory, once there is investors' enforcement that avoids the classification of ICMS Accumulated Credit in current assets, i.e., the investor's figure enforces him to change the initial classification to non-current asset.

Moreover, I could realize during the interview that, besides the uncertainty around the moment of the credit recoverability, investors' demand for quality information directs managers behavior to a more conservative position. This behavior can be explained by a rational assumption brought by Agency Theory literature, which implies that investors' demand for information acts like a control mechanism for agent's behavior.

Then, the initial recognition has not directly affected the asset classification. The credit was recognized in short-term and derecognized, when manager transferred the credit to non-current assets. This behavior exhibits the influence of enforcement on manager's behavior, even though it is more interesting for company's performance to keep all the credit's amount in current assets. Thus, contrary to what would be expected by a status quo behavior, manager gets away from his initial accounting choice, distancing himself from the expected inertia behavior.

In relation to measurement, Manager 3 states that he did not do any write-off because there were projections to justify its recoverability by future generated debts. In

addition, he claimed that in this situation he would be very conservative, and, because of it, he would recognize a write-off in the asset if there was some minimal uncertainty involving its recoverability. However, in a second moment of the interview, he affirms not being so sure about the recoverability of firm's asset and said that "*it was a relief*" when the change in companies' strategy worked well, four years after the projections had been realized.

Still analyzing the recoverability of ICMS Accumulated Credit by the public company, I also observed that a small part of the credit was recoverable by government certification and manager said that there was reasonable uncertainty regarding the use of the rest of the credit presented on the balance sheet. Even though, manager had sustained the arguments to keep all the amount in non-current assets. Moreover, the company was only able to recover the credit after 4 years since the first projections. However, no impairment loss or write-off was presented in this period.

This contradiction between his speech and actions suggests that manager acts rationally by not carrying out any type of write-off or impairment in that asset during the period (even with some doubts about assets' fully recoverability), once it could affect his performance, probably. Therefore, the behavior presented by him can also be explained by the Agency Theory, suggesting that manager wants to maximize their utility, but have to present a rational and strong justification about his decisions to the market (shareholders).

Moreover, Manager 3 said the company did impairment tests according to future projections, but the firm did not recognize any loss or write-off. This behavior was also expected under Agency Theory perspective.

Additionally, Manager 3 told me that, in the past, the company sold part of the amount of ICMS Accumulated Credit to another company. There was a revisable discount in this kind of sale's operation, but there was no change in asset's measurement. This is another expected rational behavior, once manager probably does not want to recognize a loss until he has no choice or high enforcement for doing that, according to Agency Theory. However, there is no accounting principle that forces him to measure the asset by its fair value, implying that manager does not have an accounting enforcement to recognize any loss. On the other hand, according to Behavioral Finance literature, this can be analyzed as an evidence of aversion loss and status quo bias either, once manager prefers to keep the same accounting choice presented before, avoiding any possible loss, i.e., measuring the asset by its cost.

In relation to the need for an accounting standard, Manager 3 said it is not necessary. According to him, IFRS 9 brings enough principles to lead with this situation, making not relevant a new standard about something so specific like the ICMS Accumulated Credit. Then, it was expected that a manager of a public firm does not have interest in more accounting standards, because it minimizes his discretion and limits his decision-making, as predicted by Agency Theory.

In the same perspective, Table 2.7 reports evidence I got through the interviews with two managers of private companies, which represents an environment with less enforcement. The questions asked to the managers are also presented in Table 4 (Appendix A) and it seeks to identify the accounting treatment (classification and measurement) provided for ICMS Accumulated Credit in a low accounting enforcement environment. For didactic purposes, again, I will appoint these managers as Manager 1 and Manager 2.

Table 2.7- Private companies' analysis.

CRITERIA	ASPECT	MANAGER'S ATTITUDE	MANAGER'S SPEECH AS EVIDENCE
	<b>Current classification</b>	Managers 1 and 2 classify all the amount on current assets.	<i>Manager 1: "In raw material purchase's moment, I already have to recognize the credit separately in balance sheet (short-time)" "[...] So, I keep all the credit in balance sheet, regardless of the fiscal liberation or not, because I believe it is an asset to the firm".</i>
<b>Classification</b>	<b>Asset segregation according its recoverability time expectation</b>	Managers 1 and 2 do not separate the amount in short and long-term.	<i>Manager 1: "It's very complex. For example, I am classifying the credit in current assets, but it has been unemployed for 3, 4 years. It should not be there; it should be in my non-current asset". [...] Oh, but I expect to recover it in the short-term, right?! Do I have evidence that I will recover in the short-term? Not really! I have a request that can quit at any time".</i>
			<i>Manager 2: "[...] That is why the amount is in current assets and no impairment test was performed" (blaming the government)</i>
<b>Recognition and Derecognition</b>	<b>Recognition</b>	Managers 1 and 2 recognize the asset in raw material purchases' moment.	<i>Manager 1: "At the time of purchase, it is already in current assets".</i> <i>Manager 2: "We treat the asset as it was a normal amount of ICMS credit balance (current asset), as if it was going to be used at some point. That is why the amount is in the current assets and no impairment test was performed".</i>

<b>Derecognition of the non-recoverable amount</b>	<p>Manager 1 performed a write-off on unrecoverable asset when government said that part of the amount was not possible to be certified. Manager 2 said that the credit was not approved by government, but firm did not do an impairment, because it can be used in long-term to compensate future ICMS debits, if the company would be able to change its operation.</p>	<p><i>Manager 1: "What happens is that, for example, I have requested 1 million for government, but, because a difference of IVA calculation, tax authorities released only 800 thousand to firm's use. Then, I have to do a write-off in this amount"</i></p> <p><i>Manager 2: "We did not do a write-off. All the amount is accumulated in the asset".</i></p>	
<b>Types of credit</b>	<p>Manager 1 claimed for the government certification to all the amount available in the balance sheet. However, only a part of this credit was approved, the rest is still under analysis by the government. Manager 2 claimed for all the amount presented in firm's balance sheet, but the government have denied all the credit required. Moreover, Firm 2 has a significative amount already prescribed in the asset.</p>	<p><i>Manager 1: "The accumulation of credit is recurrent (about R \$ 40,000 / month). The company has 2,000,000 of accumulated credit currently recovering, of which R \$ 1,000,000 is still under government's analysis".</i></p> <p><i>Manager 2: "We have approximately 18 million of ICMS accumulated in São Paulo".</i></p>	
<b>Amounts</b>	<p>Manager 1 got approved R\$ 800 thousand and have R\$ 1 million of credit under government analysis. Manager 2 told that there are almost R\$ 18 million of non-certified credit in firm's balance sheet.</p>	<p><i>Manager 2: "There are credits recognized in current assets that have already prescribed, there must be a change in our operation to consume this amount".</i></p>	
<b>Impairment test frequency</b>	<p>Managers 1 and 2 do not execute impairment tests.</p>	<p><i>Manager 1: "So, I keep all the credit in balance sheet, regardless of the fiscal liberation or not, because I recognize that it is an asset to the firm".</i></p> <p><i>Manager 2: "[...] That is why the amount is in current assets and no impairment test was performed".</i></p>	
<b>Measurement</b>	<b>Asset recoverability parameters</b>	<p>Managers 1 and 2 do not have parameters to test asset's recoverability</p>	<p><i>Manager 1: "Without the confirmation of the government, it is difficult to think about parameters to test the recoverability of the asset".</i></p> <p><i>Manager 1: "It's very complex. For example, I am classifying the credit in current assets, but it has been unemployed for 3, 4 years. It should not be there, it should be in the non-current. Oh, but I expect to catch up in the short term, right?! Do I have evidence that I will recover it in the short term? Not really! I have a request that can quit at any time".</i></p>

		<i>Manager 2: "I believe that if it got to the point of being certified by government, it would enter into that merit (criteria of recognition, measurement and disclosure)".</i>
<b>Destination and credit's use</b>	There was a predicable discount in this kind of sale operation, but there was no change in asset measurement by Manager 1.	<i>Manager 1: "They offered a discount of 7% to buy our credit, but we are trying to get a lower one".</i>
<b>Need for an accounting standard</b>	Manager 1 believes that an accounting standard may help, but it is improbable that it will be developed or solve the problem, because of the tax complexity in Brazil. Manager 2 affirms that a specific accounting standard is necessary.	<i>Manager 1: "An accounting standard would help, but I think that is improbable". Manager 2: "Yes, if there was an accounting standard, clearer, it would help, for sure".</i>

In relation to classification criteria, diverging from the public company reality, Managers 1 and 2 classified all the amount of ICMS Accumulated Credit on current assets. However, this behavior cannot be explained by Agency Theory assumptions, once managers do not try to justify the classification in current assets presenting a rational explanation (i.e., short-term recoverability expectation), but the opposite: **exhibiting evidence that would justify a classification of the amount in non-current assets.**

Then, all the amount was classified on current assets, even the managers have affirmed that the recoverability expectation would be on long-term. Moreover, Manager 1 tried to blame the government for the lack of parameters to analyze assets' recoverability. Thus, I have observed that the decision to classify the credit in short-term was very related to the lack of objective parameters to guide manager's accounting choice and, possible, it can be explained by an inertial behavior of the manager (status quo bias).

Although the outputs of the decision to keep non-recoverable fiscal assets classified in current period (i.e., improving financial performance) can be explained by the traditional theory as an opportunism, the motivation embedded in agent's decision-making cannot be explained by Agency Theory. According to the speeches of Manager 1 and Manager 2, presented above (Table 2.7), I realized that all the amount was classified in current assets because they could not find strong parameters to change the initial classification. Both managers have not tried to explain the classification based on the short-term recoverability expectation, but tried to explain that the recoverability depends on government's positioning and they cannot know if it will take so much time or not.

So, both managers presented rational arguments about the adequate accounting treatment for the asset (which differs from the accounting choice adopted by them), but emphasizing the dependence of a government feedback and the lack of accounting parameters. In addition, managers seem to use the initial moment of recognition (purchase) to keep the latter recognition of the credit in balance sheet, suggesting a certain inertia behavior.

More precisely, although they can point out inconsistencies in the recognition of the asset and identify the divergent attitudes practiced in the company, managers still keep their decision to leave the asset in the current asset- **classification that have been done at the initial moment of recognition**. This can be a strong evidence of status quo bias (inertia), considering that managers opt to keep the same accounting choice they have chosen before.

In relation to measurement, managers had difficulty to explain the parameters used to guide their decisions, which implies that their behavior and arguments were not totally rational and intentional. So, Agency Theory assumptions seem not to be enough to explain managers' behavior in this situation, either.

Manager 1 realized the write-off of an unrecoverable asset in a specific situation of non-certification, because, in that moment, he had a strong parameter to consider (government positioning). So, Manager 1 demonstrated that he was waiting for a strong evidence or parameter suggesting that a part of the credit was not recoverable. He decided to do nothing until the position of the government and kept the fiscal asset in the same classification and amount as it was in the beginning, without bringing a rational justification for this behavior.

According to Agency Theory assumptions, I expected that managers would explain rationally why it is not necessary to do an impairment test. However, firms do not perform impairment tests on this asset, even though the uncertainty involved. Regardless of any expectation, Manager 1 suggested that this amount represents an asset of the company anyway and, because of it, it needs to appear in the balance sheet.

Then, boundedly rationality or Agency Theory is not enough to explain this behavior, once manager does not assume a position of a decision-maker, using all the information available to make choices, but he chose to do nothing under uncertainty (i.e., he kept his inertial position). So, when he had evidence to do an impairment, he did it and justified rationally his decision, which suggests that, apparently, Manager 1 needed a government position about credit's recoverability to stimulate himself to do a write-off.

It implies that an external enforcement was necessary to get the manager away from his supposed state of inertia. This evidence seems to be strongly related to status quo bias and it can be explained by the Prospect Theory and Behavioral Finance literature.

On the other hand, the lack of derecognition of expired credit suggests an opportunistic behavior of the Manager 2, that can possibly be explained by Agency Theory. In this moment, Manager 2 had a strong parameter to do an impairment test. However, Manager 2 opted not to change the initial accounting choice. One of the explanations for this behavior can be the lower enforcement presented in a private company when compared to a public one.

In relation to the available parameters to perform impairment tests, both managers staid under contradiction over time, trying to justify the difficulty to analyze parameters for this asset and presenting inconsistencies on their own decision-making. But, during the interview, it was very notable that managers were uncomfortable to point parameters that could be used in this situation to analyze recoverability. They exhibit uncertainty and difficulty to choose variables, which can justify their possible inertial behavior. Then, the lack of accounting parameters also seems to stimulate the status quo behavior on managers' accounting choices.

When asked about changing the measurement according to the intended use of the asset, Manager 1 told me that a great possibility considered by the company would be to sell part of the ICMS Accumulated Credit with a discount to another company (they even had a 7% discount offer recently). However, he did not verify and recognize the asset by its fair value in this situation, even he had a reliable parameter for the discount rate related to the future sale. This behavior can be explained by Agency Theory, once it is not interesting for the manager to exhibit lower assets or profits, based on estimation of assets' fair value, since there is no external enforcement for this measurement. On the other hand, this can also be analyzed as evidence of loss aversion and status quo bias, once manager would prefer to keep the same accounting choice presented before and avoid any possible loss: measuring the asset by its cost (initial recognition).

Concerning to the need of a specific accounting standard, private firms' managers agreed that accounting parameters can help them to recognize and measure the asset (public company's manager affirms the opposite), which cannot be explained by Agency Theory, as it may reduce their discretionary decision-making in relation to this asset. However, they do not believe it might be something easy to be done, neither that the

regulators will develop some standard to lead with this kind of asset in Brazilian context, due to the high subjectivity that involves the fiscal issues in Brazil.

### 2.4.3 Triangulation techniques

Additionally, to support managers' evidence and provide a triangulation of stakeholders' perception, I interviewed an ex-auditor and a credit analyst of a bank, questioning their perception about managers behavior in this situation. This last analysis is very important to increase the external validity of this study and will be presented in this topic.

Table 2.8 presents a summary of the answers obtained through the interview with a Big Four ex-auditor.

Table 2.8- Auditor's opinion analysis.

CRITERIA	ASPECT	AUDITOR'S OPINION
Classification	Current classification	Manager tends to leave the credit classified in current assets, because of a liquidity issue or because it is an accounting practice already existing in the companies.
	Asset segregation according its recoverability time expectation	If the tax authorities (government) affirm that the process will be fast, then they use this as justification to keep the value in the current asset, even though they have other evidence that the recovery may not occur in the short-term.
Recognition and Derecognition	Recognition	Managers use experience to recognize and measure the ICMS Accumulated Credit in this situation.
	Derecognition of the non-recoverable amount	The full recoverability of the credit is not always recurrent.
Measurement	Impairment tests	Managers justify the tests based on internal assumptions (company projections) and based on company's experience.
	Asset recoverability parameters	Managers sustain that assets' recoverability depends on how long the government will take to validate the credit, not depending on manager's expectation.
	Destination and credit's use	After the government's certification, there is no change in the measurement of the asset, even if they expect to sell the credit to another firm with a discount.
	Need for an accounting standard	Managers do not usually question the lack of a specific accounting standard for this asset, despite the little understanding and the subjectivity involved in this process.

CRITERIA	ASPECT	AUDITOR'S OPINION
Classification, Recognition and Measurement	<b>Auditor's techniques to verify asset's classification</b>	The auditors verify documents and projections presented by the companies. In addition, they analyze company's history during the discussion about the future realization of the accumulated credit.
	<b>Auditor's technical capacity to analyze the asset</b>	The auditor often analyzes the asset. However, the analysis also depends on subjective parameters, company's history and projections. There is also a lack of technical knowledge, which makes it very difficult for auditors to validate the amount with accuracy.
	<b>Parameters of recoverability</b>	There are no objective parameters. It is difficult for auditors to properly evaluate the asset, since there is a lack of specialized professionals in this area. Many inexperienced professionals are often allocated in this subject analysis, or even lawyers. Typically, the parameters are based on company's history, documents and other assumptions used by the companies in their projections.

In relation to asset's classification criteria, according to auditor's experience, it is possible to infer that companies tend to leave the ICMS Accumulated Credit in current period, due to a question of performance, but also because of the company's usual practice. The last explanation suggests a status quo behavior presented by the manager, who chooses the same accounting choice and do not want to change asset's classification, which it a possible and reasonable explanation. Moreover, auditor's opinion corroborates managers' attitude in blaming the government for the delay in analyzing their request to use the credit. Then, it was possible to confirm that managers probably do nothing different as they used to do waiting for a government's position, which is another evidence that corroborates the presence of status quo bias.

In relation to measurement criteria, based on auditor answers, I could realize that manager is likely to use past experiences to justify the procedure adopted and often opt not to choose any accounting parameter to analyze asset's recoverability, because they probably do not want to stay away from their initial choice. Moreover, as observed in managers' interviews, auditor affirms that managers opt to continue measuring the credit by its cost, even if they intend to sell the asset with discount, according to his experience. Managers, however, opt to blame government for the lack of accounting parameters, outsourcing the responsibility for the adequate assessment of assets' recoverability.

The lack of clear recoverability parameters makes more difficult for auditors to validate the data presented by the companies and to attest asset's reliability, suggesting that the audit plays a weak role in providing enforcement to firm's disclosure in this

scenario. Probably, the difficulty in obtaining parameters to validate the asset is due to the lack of an accounting standard to assist the auditor in the analysis process. Moreover, the auditor explained that the analysis in this asset is done by sampling and, normally, the audit firm hires a tax adviser (lawyer) for this job. The main problem is that a lawyer probably does not have appropriate accounting knowledge to assess recognition, measurement and disclosure criteria.

Thus, the audit company (that was expected to question more rigorously this process of classification and measurement) seems not to be strong enough to require a change in managers' behavior and force managers to move away from the status quo predicted in their accounting choices. I could observe a lack of enforcement by audit's firm and it does not contribute to provide a stimulus that would make manager leaves his expected status quo behavior, considering a range of accounting choices available for this asset.

In this context, I observed that managers choose to keep all the credit classified in balance sheet (status quo bias), most of the time in current assets, but it does not represent always a reliable information, according to auditor's answers, because this amount is often not fully recoverable.

Finally, auditor also suggested that managers do not desire a specific accounting standard to standardize this asset, despite the difficulty they have to present plausible justifications for the classification and measurement criteria related to this asset. So, possibly, they might want to keep the status quo or to have more flexibility in their choices, which can be explained both by Agency Theory or Behavioral Finance literature.

Table 2.9 presents a summary of the answers obtained through the interview with a credit analyst.

Table 2.9- Credit analyst's opinion analysis.

<b>CRITERIA</b>	<b>ASPECT</b>	<b>ANALYST'S OPINION</b>
<b>Classification</b>	<b>Current classification and asset segregation</b>	The justification for asset's classification depends on company's governance level and audit's firm quality. Moreover, companies' size also interferes in the accounting treatment for this asset.
<b>Measurement</b>	<b>Recognition and Derecognition</b>	Companies do not usually do impairment, but the opposite may occur, i.e., the maintenance of assets that are not fully recoverable.

CRITERIA	ASPECT	ANALYST'S OPINION
Classification, Recognition and Measurement	<b>Audit's firm reliability for analyst decision</b>	According to the analyst, the audit firm is quite significant, because it increases assets' reliability.
	<b>Value- added taxes assets' reliability for analyst decision</b>	The analyst does not discredit this asset from the calculation of any indicator in his analysis. However, he may reclassify the asset if he realizes any evidence of manipulation or even when there is evidence of poor quality of accounting information.
	<b>Need for an accounting standard for analyst's process of decision-making</b>	He believes that an accounting standard would help and be great for him, because standardization is essential for analyst's job, according to him. It would improve comparability between companies (it is better when firms use the same rule, such as provided by IFRS 16).

In relation to asset's classification criteria, according to credit analyst's experience, he suggests that it depends on the audit's firm quality and the company's governance level. In addition, he stated that size can also influence the creditability of this asset. According to him: bigger the company, better the justification for the asset's allocation, whether in current or non-current period.

Then, according to him, the audit firm and the governance level play an important role in making accounting information more reliable, which favors his analysis. The analyst also believes that governance level can mitigate manipulation, because of the enforcement, especially in public companies. Based on his answers, I could realize that creditor pay less attention at this asset when analyzing public companies, for example, once the analyst assumes there is a higher level of creditability in these companies.

In relation to measurement criteria, the analyst assured that he had never seen any company doing impairment on this asset by its own initiative. Otherwise, in low-governance companies, he witnessed value-added taxes assets that were overvalued, but it was captured and pointed out by an audit firm, causing a change in audit's opinion.

According to him, if the company was submitted to a rigorous process of supervision, either by other stakeholders or by the audit firm, the possibility of some manipulation decreases. Thus, the analyst is convinced that companies would not do an impairment in this asset willingly, but only if it is submitted to an enforcement scenario that requires this positioning of the company (i.e., audit requisition or shareholders' monitoring).

Usually, if the analyst is dealing with a company audited by a Big Four and with a high level of governance, he believes that the asset's classification presents greater credibility, which makes him do not doubt about asset's allocation criteria. Otherwise, there will be greater rigor in the process of analysis and the analyst will seek more information from the company, aiming to verify whether the amount presented in current assets is justifiable and can be recoverable, indeed.

The analyst also believes that auditors parameterize the information, which represents something essential for his job. Then, he seems to believe that the auditing of a Big Four is sufficient to guarantee the reliability of the information disclosed. Otherwise, if the audit was carried out by a non-Big Four firm, the concern with information quality may increase and a careful analysis will be carried out by the credit analyst.

Regarding to the credibility of the ICMS Accumulated Credit presented by companies, the analyst affirmed that he demands more information from managers, as well detailed explanations about assets' recoverability, only if he is analyzing a company which is audited by a non-Big Four firm or presents a low level of governance and high amount of this asset classified in current assets, for example. After requesting more information, if the doubt still persists, he reclassifies the amount to long-term before performing any indicator calculations. Another important point is that he affirms that analyze PIS / COFINS credits in the same way, which suggests that the analysis of the ICMS Accumulated Credit can be extended for other value-added taxes.

However, it is worth mentioning that he appeared to outsource a part of the risk involved in his analysis to the audit firm and to the company's governance structure, getting himself involved only when he feels that these aspects are fragile or may allow some manipulation.

Finally, the analyst affirmed that a specific accounting standard would be desirable to obtain a more specific treatment for value-added taxes. He compared this situation with the usefulness of IFRS 16. According to him, now, every company presents the same accounting treatment for leasing and the analyst is who decides what to do with the asset / liability in his analysis. Then, he misses clear parameters that can help analysts' job, which is very subjective by nature, according to him.

As expected, a higher degree of standardization is desirable by creditor, once it can benefit the analysis process, making it more precise and rigorous. Moreover, the analyst highlighted the relevance of IFRS 16 as an example of improvement in the

disclosure of accounting information, demonstrating his desire for standardization whenever possible. However, I also realized that he seeks a standard that presents clear rules and not just guiding principles, avoiding his analysis to be even more subjective, according to his perspective.

#### 2.4.4 Discussion

During the interviews' content analysis, I identified a probably non-rational and emotional behavior in managers' speeches and attitudes, which may suggest the influence of status quo bias in their decision-making. Through the interviews, I could identify evidence that support a passive behavior of the manager related to the accounting treatment of ICMS Accumulated Credit and that cannot be explained by Agency Theory arguments.

I can list, at least, three evidence that represent outputs of a possible status quo bias presented in relation to the accounting choices involving the ICMS Accumulated Credit. The outputs observed and the status quo evidence are presented bellow in Figure 1.

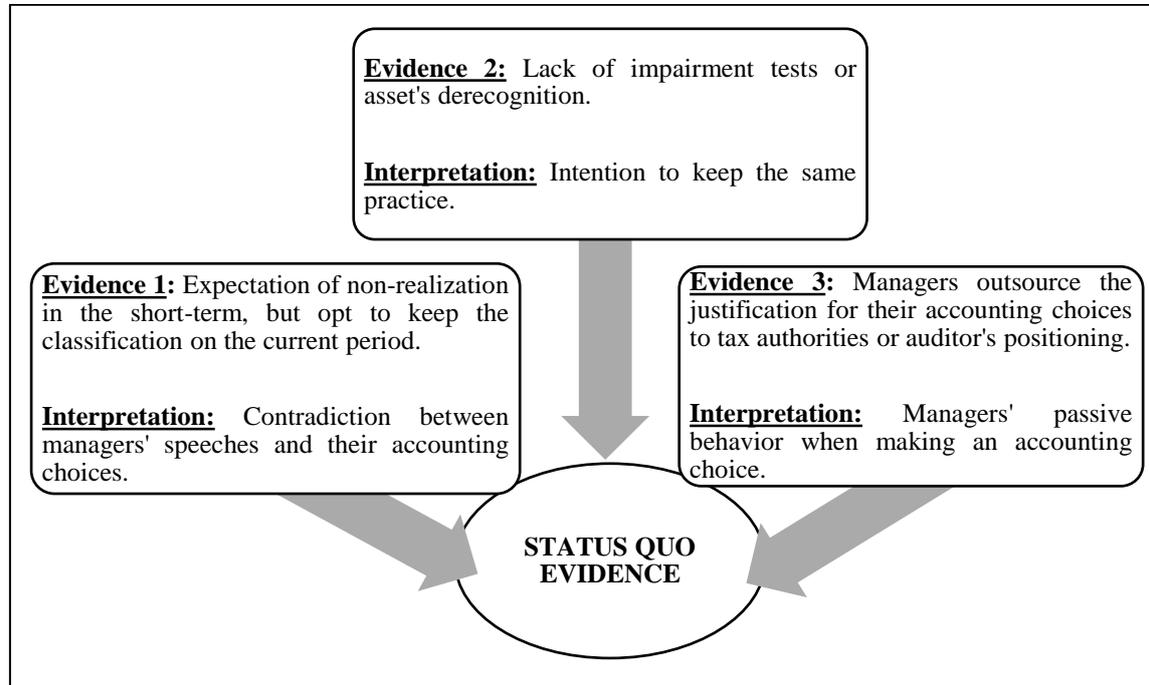


Figure 1- Evidence of status quo bias in managers' behavior.

As suggested by Figure 1, status quo evidence is supported empirically by the **non-realization of current assets in the short-term, the lack of write-off or**

**impairment tests and the dependence on tax authorities and auditors' positioning to provide adequate accounting treatment.** These outputs, when faced with managers' speeches and explanations for their accounting choices, suggested the presence of status quo bias in managers' decision-making.

Managers recognize the fiscal asset at cost, in the short-term, at the time of raw material's purchase, and do not change its classification or measurement anymore, exhibiting a kind of inertia that can corroborate the presence of status quo bias, which is explained by Behavioral Finance literature.

There is evidence that question the recoverability of the amount of ICMS Accumulated Credit in companies' assets, whether in the short-term or in the long-term allocation, indicating the need to change the initial accounting choice of keeping the asset at cost and classified in current assets, but it does not happen, apparently. In addition, managers of private companies do not try to explain their accounting choices rationally (contradicting themselves) and their remuneration is not normally tied to companies' economic performance, which implies that their decision to keep non-recoverable amounts recognized in firms' assets cannot be explained by a possible opportunistic decision-making, as Agency Theory proposes.

So, the first evidence identified through the interviews is the contradiction between managers' speeches and their accounting choices, which is supported by the non-realization of the ICMS Accumulated Credit in the short-term. Although the private companies keep the amount related to this fiscal asset in current assets, there are reasons, according to managers' answers and behaviors, to believe that its realization (if it happens) will be in the long-term. Manager 1 and Manager 2 have affirmed that all the amount related to ICMS Accumulated Credit is classified in current assets. However, both reported that the amount is probably not expected to be recovered in the short-term, clearly contradicting themselves.

Besides this, during the interview, Manager 1 and Manager 2 did not try to rationally justify the asset's classification in current assets, which suggests that they are not rationally using short-term classification as earnings management' purpose. Based on this evidence, I can suspect that these managers are being taken by an inertial behavior, once they, apparently, do not want to change their prior accounting choice. This first result was already expected, according to the definition of status quo bias, once I predicted that keeping asset's classification in short-term follows the initial recognition that was also in current assets, regardless of its recoverability.

The second evidence captured through the interviews is related to the intention to keep the same practice, probably, aiming to avoid any loss that may arise from different accounting choices. This evidence is supported by the lack of any write-off or impairment tests in situations that is possible to presume a probable non-recoverability of the asset, either through the approval of the amount by the government or by the credit's use after changes in company's operation. This behavior can possible be explained by their passive position in relation to this asset, but also by their aversion to loss, which seems to be similar to the explanation presented by Tversky and Kahneman (1971) when describing the status quo bias and its implications. Additionally, this result was also expected, since the status quo bias represents a passive behavior of individuals, which means that managers do not seek to change asset's measurement, but keep the initial choice.

The third evidence is related to managers' passive behavior in their decision-making regarding to this asset. This was identified through managers' justification about the recognition and measurement of the asset, since they used the audit firm and tax authorities' positioning as support for their accounting decisions. This passive behavior can be interpreted as a need for external enforcement to motivate managers to get out of their supposed state of inertia and make an accounting choice different from the previous one. Unlike the others evidence, this last one had not been foreseen. However, the attribution of responsibility for managers' accounting choices to other individuals further reinforces the argument of managers' passive behavior when comparing their relationship with other stakeholders.

However, it is important to highlight that, in relation to the speeches of Manager 3 (public company), I could realize a little different behavior. He exhibited a higher concern about his answers and tried to justify their choices explaining all of them rationally, which can be supported by Agency Theory. It was previously expected because of the presence of investors' figure, that develops a higher enforcement in managers behavior and forces managers to present a better information to the market. Because of it, this kind of company was used as a control case in this study.

It was possible to observe that the public firm's manager does not present an apparently and significative status quo bias in his behavior, since he changed his initial accounting choice of classification and performed impairment tests on the asset, even if no loss has been recognized. According to Pompian (2006) and Tversky and Kahneman (1971), there must be a stimulus for an individual leaves his expected inertial behavior. So, in public companies, I believe that investors' enforcement directs managers' decision-

making, forcing them to make a more appropriate accounting choice, even under an environment with lack of accounting reporting enforcement.

In addition, the purpose of applying triangulation techniques was to verify previous findings' consistence, which might improve the validation of a qualitative analysis and bring other important information that can contribute to understanding the big picture of managers' behavior. Then, the interviews with an ex-auditor and a credit analyst contributed to validate the results obtained by managers' interviews and, consequently, the presence of status quo bias in managers' behavior.

The auditor's speeches suggested that the audit enforcement is not strong enough to make managers to change their initial accounting choice. According to the auditor's opinion, it can be verified by the difficulty to find objective parameters of recoverability for this asset, even by auditors. Therefore, I realized that there is often no strong questioning of the audit firms about accounting choices related to this asset, which may favor managers to remain in their supposed status quo position, or even the manipulation of classification and measurement's criteria.

Another important information obtained was about the perception of the auditor about managers' behavior. According to him, mostly, managers are afraid of market and government's opinion, so, they can make decisions thinking about the possible impact on firm's image (specially on public companies). For example, Manager 3 (public company) told me that his firm did not claim for government certification because he was afraid to be fined, but he did not present a specific reason to get afraid of tax authorities. This is another typical non-rational behavior of managers that can interfere in their decision-making, according to the auditor. In this scenario, I believe it also might favor the status quo bias in managers accounting choice.

In another perspective, analyst's speeches contributed to confirm the lack of objective parameters for asset's recoverability, which makes possible for managers opting to keep non-recoverable amounts in currents assets, for example. However, the main contribution brought by this interview was the perception of the analyst about the audit firm and firms' corporate governance. The confidence that the analyst demonstrated in the audit process and in governance structure was remarkable. I realized that most part of the risk in the process of financial analysis was delegated to other stakeholders (i.e., the audit firm), suggesting that creditor believes in auditor to identify any manipulation or lack of quality information. However, the analyst also empathizes the relevance of a Big Four audit company in this process, suggesting that he believes there is a significative

difference in the reliability of the audit process carried out by smaller companies, if compared to Big Four ones.

Comparing both interviews (auditor and credit analyst), I observed that the perception about managers' behavior in relation to classification and measurement criteria are similar between them.

Moreover, comparing the answers, I could establish one important relation that links the perception about the reliability demonstrated by the auditor, credit analyst and managers. I observed that the credit analyst trusts a lot in the opinion of the audit firm (if it is a Big Four), as he assumes that the supervision process was rigorously carried out by the audit company. On the other hand, the ex-auditor of a Big Four company emphasized the difficulty to analyze the recoverability of the ICMS Accumulated Credit, mainly due to the lack of clearly accounting parameters of recoverability and the high subjectivity involving this asset (i.e., it depends a lot of tax authorities' positioning and analysis). This makes the auditor trusts, many times, in the projections presented by the managers as a way to justify the classification or the measurement of this asset presented in the companies' balance sheet.

Additionally, I could identify a similar behavior in managers' answers, because they, on several moments, demonstrated to outsource the justification for ICMS Accumulated Credit classification to the government, based on vague expectations of recoverability created by the tax authorities during this process. It occurs even without other strong evidence that would make company to be able to recover this amount in the short-term, or worst, even with managers' past experiences that suggested the opposite. Then, I could identify a kind of chain reaction, which outsources the responsibility for the recoverability expectation of this asset to other stakeholders and possible affects the credibility of the information disclosed to the market.

Furthermore, the evidence presented by this research complements the literature on accounting choices, proposing that not only rational aspects may influence in managers' decision making, as pointed by other papers (e.g., Watts & Zimmerman, 1986; 1990; Missonier-Piera, 2004; Astami & Tower, 2006; Quagli & Avallone, 2010; Malikov, Coakley, & Manson, 2019), but also non-rational motivations can interfere in their choices.

## 2.5 CONCLUSIONS

The purpose of this study is to analyze if the low accounting enforcement can stimulate status quo bias in managers' accounting choices, considering the existence of changes in asset's condition. To my knowledge, there is no prior studies analyzing the potential influence of behavioral biases on accounting choices, despite the relevance of the evidence brought by Behavioral Finance literature and Prospect Theory. So, I want to shed light on the importance of considering cognitive and emotional disfunctions when analyzing the determinants of accounting choices in a low accounting enforcement scenario, in addition to the rationality assumption, which still dominates the mainstream literature.

To achieve the objective of the research, I analyzed the accounting choices related to ICMS Accumulated Credit: an asset that is not covered by a specific accounting standard. I chose this asset because it allows more flexible choices and presents low accounting enforcement, which could help me to identify the presence of status quo bias in managers' decisions in this environment. So, following a detailed research protocol, I interviewed managers of private and public companies, as well an ex-auditor of a Big Four audit company and a credit analyst.

The content analysis suggested the following evidence of status quo bias in managers' accounting choices related to ICMS Accumulated Credit:

- Contradiction between managers' speeches and their effective accounting choices, once they did not try to explain rationally their decision of keeping the initial recognition/classification.
- Intention to keep the same practice, possible aiming to avoid any loss that may arise from a different accounting choice.
- Managers' passive behavior when making an accounting choice, outsourcing and justifying their decision based on other stakeholders' opinion, like tax authorities and auditors, rather than presenting a rational justification.

The evidence presented above cannot be explained by Agency Theory and corroborate the need to analyze accounting choices in a wider perspective, considering both rational and behavioral variables that can affect managers' decision-making.

I also noticed that the status quo was more evident in the context of private companies and it can possible be explained by the greater enforcement present in public companies, because of investors' figure. So, I can assume that the investor's demand for

information and continuous monitoring may encourage managers to make an accounting choice different from the status quo alternative, pushing him away from the expected state of inertia.

Finally, the findings suggested that accounting choices made in a context of under regulated assets and low accounting enforcement are susceptible to managers' inertial behavior. In this context, Behavioral Finance assumptions should not replace Agency Theory in explaining managers' decision-making, but complement the mainstream literature by presenting other variables that can affect their choices. I propose that literature needs the support of both theories in order to provide better explanations for accounting choices.

Therefore, this research contributes to the literature on accounting choices from both theoretical and practical perspectives, complementing and expanding the findings of other papers, e.g., Watts & Zimmerman, 1986; 1990; Missonier-Piera, 2004; Astami & Tower, 2006; Quagli & Avallone, 2010; Malikov, Coakley, & Manson, 2019. At first, I hope to expand the understanding about accounting choices' determinants, demonstrating that managers' choices cannot be made only by rational motivations, but can also be influenced by status quo bias in contexts of low accounting enforcement. Moreover, it is important to emphasize that I found both motivations in managers' decision-making, rational and emotional, which fortify the argument that Agency Theory and Behavioral Finance are complementary literature and must be considered together when analyzing accounting choices' motivations.

Additionally, this study has also relevant practical implications for stakeholders, once they need to understand and identify variables that can interfere in their decision-making. In the case of auditors, for example, knowing that the status quo bias can affect managers' accounting choices in relation to ICMS Accumulated Credit, they can intensify the analysis of this asset, seeking to improve the quality of information for the market. Moreover, I also believe that findings may help regulators to improve their understanding about managers' behavior under a lack of specific accounting standard and assess the cost and benefits of the standardization. In a scenario of a wide range of options involving an asset without specific regulation, the standardization seems to be important to try to mitigate managers' inertial behavior (status quo bias). So, the research provide evidence to support the need of developing a specific accounting standard for value-added taxes, especially in Brazilian context. It is a challenge for standardizers to also consider possible non-rational choices in the normative process.

It is also important to mention that this study present some limitations. Considering that this is a qualitative study, the findings cannot be generalized, but it opens opportunities for future research to apply a quantitative technique and examine the influence of status quo bias on accounting choices in a large sample. Moreover, there might be other behavioral biases interfering in manager's decision-making, which was not in the scope of this research. So, it would be interesting if future research also opts to analyze the influence of other possible behavioral biases on accounting choices, by analyzing different contexts and applying different approaches and techniques to achieve this goal, like developing an experiment to test the status quo hypothesis or other behavioral biases' implications.

### 3 THE INFLUENCE OF STATUS QUO BIAS ON ACCOUNTING CHOICES

#### 3.1 INTRODUCTION

This paper focuses on analyzing if companies' accounting choices may be affected by the status quo bias in a context of low accounting enforcement. The literature on accounting choices is strongly based on rational explanations, suggesting that managers' decisions are specially motivated by utility maximization (see, e.g., Jensen & Meckling, 1976; Simon, 1990). Then, according to Agency Theory perspective, the lack of quality on accounting information can be explained by an opportunistic and rational behavior, which inhibits any questioning about the motivations regarding managers' accounting choices in practice.

Although most studies that analyze accounting choices use the Agency Theory as support to explain its findings, considering the expansion of research in Behavioral Finance, there is an increasing need to also expand our explanations about accounting choices beyond the rationality assumption (Tversky & Kahneman, 1971; Kahneman & Tversky, 1979). So, what mainstream literature does not seem to effectively consider is that, not always, individuals' choices need to be motivated by a rational expectation, but it also may be influenced by other emotional and cognitive factors.

Thus, considering the advances presented by the Behavioral Finance literature (which were intensified after the development of the Prospect Theory, presented by Kahneman and Tversky, in 1979), defending that accounting choices are always motivated by rational and well-founded decisions makes the findings unrealistic and hardly applicable in firms' reality, as suggested by Andrikopoulos and Vagenas-Nanos (2017).

Among many behavioral biases that can contribute to a greater understanding of individuals' decision-making, one of the main advances in Behavioral Finance research has been the observation that individuals may be affected by the status quo bias when they need to make choices (see, e.g., Samuelson & Zeckhauser, 1988; Kempf & Ruenzi, 2006; El Harbi & Toumia, 2020). According to Samuelson and Zeckhauser (1988), when in front of a set of alternatives, it is expected that individuals tend to keep the previous choice, or one closer to it, preferring to keep a kind of inertia in their decisions, even if this is not the most appropriate decision, which can be explained by the status quo bias.

Moreover, this bias becomes more evident the greater the number of alternatives available (Samuelson & Zeckhauser, 1988; Kempf & Ruenzi, 2006).

Then, despite the number of studies that analyze the determinants of accounting choices, the vast majority ignore the possible influence of behavioral biases on these choices (see, e.g., Watts & Zimmerman, 1986; 1990; Missonier-Piera, 2004; Astami & Tower, 2006; Quagli & Avallone, 2010; Malikov, Coakley, & Manson, 2019). So, the explanation and understanding about accounting choices' determinants must be wider and go beyond the frontier of rationality, once there is still little evidence in literature whether behavioral biases, like the status quo, can affect accounting choices.

In this context, the research problem of this study derives from the following question: if the status quo affects individuals' decision-making, especially in contexts with a large number of alternatives, **can it also affect accounting choices related to an asset with changing conditions in a context of low accounting enforcement?** So, the objective of this paper is to verify if the accounting choices related to an asset without specific accounting regulation can be affected by status quo bias at an institutional level.

To achieve this goal, I analyzed 5,256 Brazilian companies (4,848 private companies and 408 public companies) over 9 years, from 2011 to 2019, by applying a dynamic panel random-effects probit model. In order to capture the effect of status quo bias, I opted to analyze the accounting choices related to an asset that is not covered by a specific accounting standard in Brazil and is susceptible to changing conditions: **the recoverable value-added taxes**. Then, I examined the extent of the status quo bias by looking at the influence of the previous classification choice of the company in the current one, analyzing a specific case of low accounting enforcement in Brazil.

The main results suggest that liquidity, size and leverage may affect the accounting choice of classification, as already theorized by Agency Theory. However, the previous accounting choice also affected the company's current choice, suggesting that the status quo bias may interfere on companies' accounting choice of classification. Moreover, I observed that public firms are less affected by status quo bias compared to private ones, which can probably be explained by investors' enforcement.

Therefore, this paper aims to contribute to literature on accounting choices from two perspectives: theoretical and practical. In a theoretical way, the results shed light on the influence of behavioral biases in accounting choices, bringing empirical evidence that the status quo bias can interfere in the quality of accounting information disclosed by companies in a low accounting enforcement context. Moreover, the findings suggest that

the literature needs to consider the knowledge covered by Agency Theory and Behavioral Finance in a complementary way, in order to explain and expand our understanding about accounting choices.

From a practical perspective, it seeks to help stakeholders to improve their perception of risk and quality information. Then, I hope the results can assist credit analysts, investors and auditors during the process of companies' risk analysis, pointing out new variables that they should take into account in their decision-making. Moreover, it is important for regulatory bodies to improve their understanding about other factors that can affect managers' accounting choices, once it may help them in the process of preparing accounting standards.

## **3.2 LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

### **3.2.1 Accounting choices: mainstream literature**

According to Fields, Lys and Vincent (2001, p. 262), an “accounting choice may provide a mechanism by which better informed insiders can impart information to less well-informed parties about the timing, magnitude, and risk of future cash flows”.

In this context, the mainstream of accounting choices' literature is fundamentally supported by manager's rationality assumption and, because of it, research mostly seek to find economic and contractual incentives that explain managers' decision-making. Indeed, uncounted studies (for example: Holthausen & Leftwich, 1983; Healy, 1985; Press & Weintrop, 1990; Watts & Zimmerman, 1986; 1990; Defond & Jiambalvo, 1994; Fields, Lys, & Vincent, 2001; Missonier-Piera, 2004; Lourenço & Curto, 2010; Malikov, Coakley, & Manson, 2019) have provided strong evidence of managers' opportunistic behavior over decades, which seems to be a strong motivation behind accounting choices.

In this context, according to Silva, Martins and Lemes (2016), although there is not a consolidated theory that explains accounting choices until now, literature is basically supported by two great conceptual sets: Positive Accounting Theory and Institutional Theory.

The Positive Accounting Theory, which is sustained essentially by Agency Theory and Firm's Contractual Theory (Jensen & Meckling, 1976), differentiates the motivations involving accounting choices into three different perspectives: bonus plan hypothesis, debt/equity hypothesis (covenants) and political cost hypothesis (Watts &

Zimmerman, 1986; 1990). So, great part of research addresses these hypotheses under an opportunistic perspective, suggesting that managers choose the accounting methods pursuing to maximize their own utility.

In a first perspective, the bonus plan hypothesis predicts that managers working at firms with bonus plan incentives are more likely to use accounting methods to increase current period income, anticipating future bonuses and, consequently, increasing the present value of their bonuses (Watts & Zimmerman, 1986). However, this hypothesis needs to be analyzed more deeply. According to Healy (1985, p.86):

if earnings are so low that, no matter which accounting procedures are selected, target earnings will not be met, managers have incentives to further reduce current earnings by deferring revenues or accelerating write-offs, a strategy known as ‘taking a bath’.

So, in this case, the incentive would be reverse, but also embedded in an opportunistic approach.

From another perspective, the debt/equity hypothesis focus on firm’s leverage as an incentive to choose appropriate accounting methods that minimizes stakeholders’ perception of company financial risk. According to Watts and Zimmerman (1990, p. 139), “the higher the firm’s debt/equity ratio, the more likely managers use accounting methods that increase income”. It occurs because an increase in leverage can be directly related to covenants constraint issues, as demonstrated by Press and Weintrop (1990). According to them, “the indicator for the presence of a leverage constraint is positively associated with income strategies” (Press & Weintrop, 1990, p. 93). So, the greater the probability of a covenant violation, the greater the propensity of managers choose accounting methods that avoid the disruption of debt contractual clauses. Identically to the previous hypothesis, managers’ rational behavior is also remarkable in this situation.

Finally, the political costs hypothesis suggests that larger firms are supposed to use accounting choices to reduce reported earnings to avoid political attention in some situations, which would be less common in smaller companies (Watts & Zimmerman, 1990). The explanation for this behavior is supported by the following argument: if the firm reports higher earnings, it might be expected that governance costs are also increased (Daley & Vigeland, 1983). So, firms may try to avoid political costs and market attention by reporting lower earnings, which is also a rational decision supported by a cost benefit analysis.

On the other hand, there are also institutional limitations for managers' attitudes in organizations. According to Silva, Martins and Lemes (2016), ethical issues or fear of punishment, for example, can influence directly on managers' accounting choices. Thus, in addition to the explanatory power of economic theories about accounting choices, Institutional Theory offers explanations that can be more consistent for such choices, once it provides strong evidence about the relevance of social culture and environment issues (aspiration for legitimacy, for example) on accounting practice (Dillard, Rigsby, & Goodman, 2004; Silva, Martins, & Lemes, 2016). In Swiss context, for example, Missonier-Piera (2004) affirms that pressure from private creditors may affect managers' accounting decisions, which means that creditors can also play a significant role in the selection of accounting choices.

However, despite looking from an institutional perspective, instead of an individual one, Institutional Theory is also based on the assumption of manager's rationality as a decision-maker at the organizational level, just like Positive Accounting Theory predicts.

Thus, regardless of the specific theory behind accounting choices, the prevalence of economic, contractual and contextual aspects that explain managers' decisions is remarkable in literature. However, this theoretical framework does not seem to be enough to explain the big picture of accounting choices, since studies often present conflicting results and do not consider decision-making as a whole (Fields, Lys, & Vincent, 2001; Silva, Martins, & Lemes, 2016).

The mainstream research, essentially, associates accounting choices to corporate characteristics, like profitability, performance, leverage, liquidity, corporate governance, managers compensation, investment opportunities and size (e.g., Watts & Zimmerman, 1986; Missonier-Piera, 2004; Kothari, Leone, & Wasley, 2005; Astami & Tower, 2006; Scott, 2009; Quagli & Avallone, 2010; Lourenço & Curto, 2010; Lorencini & Costa, 2012; Andrade, Silva, & Malaquias, 2013; Gordon, Henry, Jorgensen, & Linthicum, 2013; Murcia, Souza, Wuergues, & Duarte, 2013). Therefore, studies seek to identify firms' determinants that can explain managers' decision (Silva, Martins, & Lemes, 2016), stereotyping manager as an individual that always reacts to internal and external incentives, making optimal and opportunistic decisions in any situation.

Another approach widely explored by studies in this area is the association between accounting choices and earnings management, because the implications of accounting choices to achieve a goal are consistent with the idea of earnings management

(Fields, Lys, & Vicent, 2001). This literature is known as classification shifting. According to Franz, HassabElnaby and Lobo (2014), this type of earnings management reflects the use of accounting choices like accruals. Then, examples of this practice include accelerating the recognition of revenues, delaying the recognition of expenses, inflating reported cash from operations and increasing reported EBITDA (Franz, HassabElnaby, & Lobo, 2014; Malikov, Coakley, & Manson, 2019).

All of these management possibilities exist because IFRS standards are fundamentally based on principles, which offers more flexibility, but also creates countless opportunities for earnings management (Góis & Parente, 2020). However, the motivations behind this decision-making are supported by the same assumption: managers' rationality and opportunistic behavior. Then, companies that are concerned with covenants' violation, operating losses and lower growth, or even seek to meet earnings benchmarks and new debt financing, are willing to use accounting choices with an opportunistic perspective, according to literature (Zalata & Roberts, 2017; Noh, Moon, & Parte, 2017; Malikov, Manson, & Coakley, 2018; Malikov, Coakley, & Manson, 2019).

In this context, serving manager or company's interests is a rational view of accounting choices that dominates literature, even though this analysis is not able to explain the accounting choices as a whole, if considered isolated from other possibilities (Silva, Martins, & Lemes, 2016). From this perspective, Fields, Lys and Vincent (2001) argues that a great limitation of accounting choices literature is that researchers tend to limit their questioning to the pathological use of accounting choice, ignoring the major role of accounting in normal: day-to-day situations.

### **3.2.2 Behavioral Finance and individual's choices**

Fields, Lys and Vincent (2001) suggest that, despite the applicability of empirical research, behavioral and experimental perspectives of accounting studies can also contribute to the understanding of the big picture of accounting choices. In addition, Andrikopoulos and Vagenas-Nanos (2017, p. 102) highlight that "one of the unrealistic assumptions of neoclassical models is that such individuals are fully rational".

In this context, Kahneman, Knetsch and Thaler (1991) pointed out that economics can be differentiated from other social sciences because of the belief that behavior can be explained by assuming that agents make rational choices, which implies that divergent results are characterized as market anomalies, once it seems to be difficult to explain.

However, economic models that ignore the influence of economic anomalies, that is, the possibility of choices not always being rational, result in analyzes that deviate from reality in several different ways (Kahneman, Knetsch, & Thaler, 1991).

Then, at the same time that research on accounting choices expands their findings assuming that individuals are rational, the literature on behavioral finance sheds light on the need to expand the understanding of human behavior beyond its supposed rationality, in order to make economic models more robust, reliable and applicable to reality.

From the perspective of Behavioral Finance literature, one of the most known behavior asymmetries is the loss aversion, which was presented by Kahneman and Tversky (1979). According to the notion of loss aversion, individuals are more affected by losses than gains, which implies that the impact of a difference is usually greater when it is identified as a loss than when the same difference is identified as a gain (Kahneman & Tversky, 1979; Tversky & Kahneman, 1991; Kahneman, Knetsch, & Thaler, 1991), contradicting the idea that individuals present risk-aversion, as predicted by Traditional Finance Theory. Then, I can infer that loss aversion can affect individuals' choice, leading them to a decision that can be motivated by a behavioral bias, instead of using their pure rationality.

Still according to Kahneman, Knetsch and Thaler (1991, p. 197), "one implication of loss aversion is that individuals have a strong tendency to remain at the status quo, because the disadvantages of leaving it loom larger than advantages". The status quo bias was initially demonstrated by Samuelson and Zeckhauser, in 1988. According to them, when choosing among alternatives, individuals have a tendency to develop a bias toward sticking with the status quo one, i.e., individuals tend to keep the previous choice or one that is closer to it (Samuelson & Zeckhauser, 1988).

According to Samuelson and Zeckhauser (1988, p. 8), in a rational choice model, the individuals' decision can only be influenced by their own preferences, which implies that "neither the order in which the alternatives are presented nor any labels they carry should affect the individual's choice". However, in the real world this statement does not seem to be totally applicable and realistic. In practice, one of the alternatives is, inevitably, doing nothing or keep one's current or previous choice. Based on this, faced with new choices, individuals often stick with the status quo alternative, opposing the expected rational choice (Samuelson & Zeckhauser, 1988).

Then, since Samuelson and Zeckhauser's research, studies have been developed seeking to bring evidence of status quo bias in economic and investment decisions (e.g.,

Kempf & Ruenzi, 2006; Hunton, Mauldin, & Wheeler, 2010; Jeffrey & Putman, 2013; Lu & Xie, 2014; Messier, Quick & Vandervelde, 2014; Saurin, Varejão, Janeira, Costa, Prates, 2015; Dean, Kribis, & Masatlioglu, 2017; Cardon, 2019; El Harbi & Toumia, 2020). Although there is currently an extensive literature that addresses the influence of behavioral biases in decision-making, including demonstrating evidence of status quo, most of these studies are developed at the individual's level (for example, Hunton, Mauldin, & Wheeler, 2010; Saurin et. al, 2015; Cardon, 2019). Thus, there are few studies in accounting that seek to identify the presence of status quo bias at an organizational perspective (for example, Kempf & Ruenzi, 2006; El Harbi & Toumia, 2020).

More specifically in accounting choices, I can observe an absence of studies that correlate choices and status quo bias in managers' decision-making scope. On the other hand, it seems to be important to analyze the relationship between these two variables (accounting choices x status quo), once Silva and Martins (2018) demonstrated that there are established patterns in accounting choices made by Brazilian public companies and a possible explanation, among others, can be the influence of status quo bias in managers' decision. In stable contexts, a certain level of status quo is probably desirable, even by the regulators, once its results in more comparability over years. However, if we are analyzing a context in which there are changes in assets or liabilities' conditions, the status quo may decrease the quality of accounting information presented to stakeholders.

Among the few studies that analyze the influence of the status quo at the organizational level are Kempf and Ruenzi (2006) and El Harbi and Toumia (2020). Kempf and Ruenzi (2006) examined the influence of status quo bias (SQB) in the mutual fund market and focused on understanding if the extent of the SQB depends on the number of alternatives offered to investors. The research identified a positive influence of previous growth on current growth in mutual fund segments, which is explained by SQB. Moreover, the authors observed strong empirical evidence that the status quo depends on the number of available possible alternatives (i.e., the greater the number of choices, the more evident the status quo bias), as predicted earlier by Samuelson and Zeckhauser (1988). According to them, "if there are more than 100 alternatives, the SQB is three times as large as if there are only 25 alternatives" (Kempf & Ruenzi, 2006, p. 212).

In the same perspective, El Harbi and Toumia (2020) investigated the influence of status quo bias (SQB) on venture capital (VC) investments. They found evidence of SQB by identifying that the choice of investment sectors depends positively on the

previous choice, suggesting a maintenance of investment practice over the nine years, in a context of 24 countries. So, the results indicate that venture capital investors are not perfectly rational decision-makers, as predicted by Agency Theory, although some strategic factors were also significant for investors' choice, such as: influence of value-added by activity and VC country attractiveness index (El Harbi & Toumia, 2020). The evidence brought by this study suggest that both variables (rational and behavioral) can explain investors' decisions, which implies that they are not mutually exclusive, but rather complementary.

### **3.2.3 Hypothesis development**

According to Fields, Lys and Vincent (2001, p. 256), an "accounting choice is any decision whose primary purpose is to influence (either in form or substance) the output of the accounting system in particular way". This definition is supported by a typical principal-agent relationship (Jensen & Meckling, 1976), resulting from the existence of informational asymmetry. On the other hand, empirical evidence in Behavioral Finance research suggest that individuals do not behave rationally in most part of time. More specifically, in a scenario of possible alternatives, individuals are often subject to status quo bias (i.e., they often choose to keep the current choice, instead choosing another one), which increases significantly with the number of available alternatives (Samuelson & Zeckhauser, 1988; Kempf & Ruenzi, 2006; Tekçe, Yilmaz, & Bildik, 2016; El Harbi & Toumia, 2020).

According to Samuelson and Zeckhauser (1988), an empirical evidence of status quo bias is the decision of doing nothing or keeping the previous choice in the current period, even if this is not the most appropriate decision. Similarly, in an organizational context, I can believe that accounting choices can also be affected by status quo, as suggested by Silva e Martins (2018), whose results explanation point to companies' preference for keeping existing accounting policies. Then, I predict that accounting choice in the previous fiscal year may affect the accounting choice in the current fiscal year.

It is worth mentioning that, although keeping the same accounting choice over years is even desirable from the point of view of standard setters in many situations (i.e., since it provides a certain level of comparability for stakeholders), it does not always imply an improvement in the quality of accounting information. On the contrary, if there

is a change in assets or liabilities' conditions, it needs to be demonstrated by changes in measurement and classification criteria, for example, at the risk of presenting non-relevant information to the market.

Furthermore, although there is the figure of a manager behind an accounting choice, at the institutional level, I expected that choices are made through decisions that involve a group of individuals who are part of the company's management. Therefore, I will analyze the impact of the status quo bias at the institutional level, i.e., I believe that accounting choices' output is the result of a joint decision biased by the status quo bias.

In addition, if the effect of the status quo proves to be significantly strong over time, it can be perpetuated for many subsequent periods by the company, without any change in the accounting choices made previously, as demonstrated by Kempf and Ruenzi (2006) and El Harbi and Toumia (2020). So, I predict that companies may keep their previous decision, even in a scenario where the alternative choice can be more appropriate than the previous' one, as it may occur in a context of low accounting regulation. Based on this argument, the first hypothesis proposed in this research is:

**H1: Accounting choices related to an asset with changing conditions under low accounting regulation can be influenced by the status quo bias in firms' institutional context.**

Finally, the investors play an important role in monitoring managers' decisions in public companies (Jensen & Meckling, 1976), which can represent an enforcement for managers leave their comfort zone to meet the demand for quality information. So, it is possible that public companies can be less affected by status quo bias, due to market's monitoring. This argument can be supported by the idea that status quo bias can be compared with an inertial behavior, which can be overcome by a force that is sufficient to remove individuals from their state of inertia when making a decision (Samuelson & Zeckhauser, 1988; Pompian, 2006). In private companies, however, I believe that the enforcement of creditors cannot be enough to avoid the status quo bias. Thus, the second hypothesis proposed in this research is:

**H2: Public companies are less likely to be affected by status quo effect on accounting choices when compared to private companies.**

### 3.3 RESEARCH DESIGN

In order to capture the effect of status quo bias on accounting choices, I selected an asset that is not covered by a specific accounting standard: **the recoverable value-added taxes**. According to Samuelson and Zeckhauser (1988) and Kempf and Ruenzi (2006), the greater the number of available alternatives, the greater the susceptibility of individuals to the status quo bias. Therefore, choosing an asset without specific accounting regulation determined by IFRS, I can expand the possibility of capturing the status quo on managers' choices, since recognition, measurement and disclosure criteria are not clearly defined in this situation, allowing wide range of possible alternatives in the scope of decision-making over time.

In Brazil, due to the complexity of the legislation, the recoverable value-added tax is often not recoverable in the short-term for a number of reasons, especially because companies need to meet a series of criteria established by the legislator that makes the process of recovering tax credits quite slow and hard, when there are no value-added tax debts in the liabilities to be offset. Considering this scenario, it is normatively desirable that companies in this situation choose to leave the accumulated tax credits amount classified in non-current assets, even in the absence of a specific accounting standard to deal with this kind of asset. Moreover, if the company does not present enough tax debts to confront the recoverable asset and does not meet government's criteria either, part of that amount does not become totally recoverable in practice, neither in the short-term nor on the long-term, implying that companies should do an impairment test.

Then, considering that the initial recognition of this asset occurs in the short-term, companies were expected to reclassify part of this fiscal asset to long-term, once it cannot be recovered or used in the current period by the company. That is, right after the initial recognition, the fiscal asset undergoes a change in its condition, causing an alteration in the context that would justify and ask for a different accounting choice. It happens due to the change in the expectation of recoverability and the company's ability to use credit, which is very common and already expected. So, the condition of this asset changes in the moment that it cannot be recoverable in the short-term, or even in the long-term, which should oblige the companies to reclassify and also remeasure the amount presented earlier in the current assets.

On the other hand, although the existence of the Conceptual Framework, there is not a specific accounting standard to address managers' behavior in this situation, which

makes accounting choices related to value-added taxes more flexible and managers more susceptible a different interpretation or perception of the current scenario. Then, I assume that more flexibility for managers decisions, caused by the lack of a specific accounting standard (low accounting enforcement), may favor a passive behavior of keeping the fiscal asset classified in short-term, even if it does not represent the most appropriate decision, as explained before.

### **3.3.1 Data and sample delimitation**

I analyzed 5,256 Brazilian companies (4,848 private companies and 408 public companies) over 9 years, from 2011 to 2019, resulting in an unbalanced panel data with 27,330 observations (private companies: 24,397 observations; public companies: 2,945 observations).

I chose 2010 as the initial cutoff point for data collection, due to the mandatory adoption of IFRS in Brazil, but our sample is not limited to companies that already existed in 2010, i.e., our sample contains data of companies that made IPO after this data or even started their operations after 2010. Moreover, the year 2010 did not compose the analysis due to the presence of lagged variables in the empirical model (the same reasoning is applicable to other initial years presented in the sample).

In addition, both the dependent and independent variables were collected from VALOR PRO database, which contains information about Brazilian public and private companies. Only the variable referring to the audit's firm was collected through a database available on Finance and Risk Laboratory at FEA/USP, by the following website: <https://www.tatianaalbanez.com/>.

Table 3.1 presents detailed information about the sample composition and exclusions made from the initial sample. In a first moment, I excluded companies with missing value or that presented information from only two years. In a second moment, I separate companies according to their enforcement level (public or private) and, finally, I segregated some companies in extreme liquidity situations (low liquidity and high liquidity), by identifying the extreme quartiles in the sample. This last separation was essential for carrying out the robustness tests.

Table 3.1- Sample's composition

<b>Sample's composition</b>		
Initial sample	7.655	companies
Sample exclusions	2.399	companies
(-) Missing values for any variable of interest in the econometric model		
(-) Duplicated information about public companies		
(-) Companies with only two years of sampling		
<b>Final Sample</b>	<b>5.256</b>	<b>companies</b>
Private companies	4.848	92%
Public companies	408	8%
Low Current Liquidity (1° quartile): CL < 1,0138	675	companies
High Current Liquidity (3° quartile): CL > 2,4043	746	companies

### 3.3.2 Empirical model and econometric methodology

Among the possible accounting choices related to value-added taxes recoverable, I chose to analyze the decision of classification the amount in current or non-current assets. In a first moment, I also intended to analyze decisions related to impairment tests on this asset, however, the lack of detail about the composition of income statement in Valor Pro database did not allow this analysis. It implies that the decision to observe companies' classification choice was made based on the availability of accounting information in the Valor Pro database, however, I also believe that this is one of the main choices related to this kind of asset, since it can directly influence perception of companies' liquidity. Moreover, the initial recognition of this asset is on short-term, which means that companies need to choose if the amount will be reclassified to non-current assets or not over time.

Then, I examined the extent of the status quo bias in accounting choices by looking at the influence of the previous classification choice of the company in the present one. More precisely, I seek to verify if the choice of accounting classification in short-term related to recoverable value-added taxes remains unchanged over time, as well as if the choice of the company in the previous period influences company's choice in the present moment.

So, seeking to achieve the proposed objective, I decided to use a dynamic panel probit model. More precisely, I used a dynamic panel random-effects probit, because the empirical model presents some dummy variables that do not demonstrate significant variance over time, making unfeasible the use of a panel with fixed-effects, for example.

The empirical model used in this research is based on Kempf and Ruenzu (2006) and El Hourbi and Toumia (2020) and is presented below:

$$P(\text{choice}_{i,t} = 1 | \text{choice}_{i,t-1}; \text{choice}_{i,0}; \sum \text{controls variables}) \quad (1)$$

$$\text{Choice}_{i,t} = \beta_1 \text{Choice}_{i,t-1} + \beta_2 \text{Choice}_{i,0} + \beta_3 \text{Liquidity}_{i,t-1} + \beta_4 \text{Size}_{i,t} + \beta_5 \text{Leverage}_{i,t} + \epsilon \quad (2)$$

where  $t = 1$  corresponds to 2011. The choice  $i,t$  is a binary variable (dummy) that equals to 1 if recoverable value-added taxes are classified in current assets and 0, otherwise. Choice  $t_0$  represents the accounting choice of classification made by company in the first year analyzed in the panel data. The choice  $i,t-1$  is a measure of state dependence that represents the choice of classification in the previous year ( $t-1$ ).  $\beta_1$  and  $\beta_2$  are the coefficients of the lagged dependent variable and are used to indicate whether past accounting classification choice is significantly related to current accounting choice (see, e.g., Kempf & Ruenzi, 2006; El Hourbi & Toumia, 2020).

Then, based on the economic model presented by Kempf and Ruenzi (2006) and adapted by Hourbi and Toumia (2020), if  $\beta_1$  and  $\beta_2$  are positive and significant, it suggests that both the previous and the initial accounting choices of classification influence in the current accounting choice over the years, what is treated theoretically as evidence of status quo bias, especially considering the maintenance of the same accounting choice over a long time series. So, the coefficients  $\beta_1$  and  $\beta_2$  need to be analyzed together, in order to provide stronger evidence of status quo bias in managers' classification choice.

Due to the dynamic nature of the value-added taxes, the effect of keeping the same accounting choice over years (i.e., the same classification, even in current or in non-current period) does not represent just a stochastic effect and should not be expected, once the recoverability or use of the amount would cause a need to change its classification or measurement over the years (i.e., the accumulation of the amount should be momentary, even in short or long-term). However, as a limitation of this variable, it is possible that small reclassifications occur in some companies over the years, due to the normal operation of the company (recovery and entry of new credits, for example), but it would not be captured by the dummy, because it would not cause significant changes in the asset's amount, even in the short or long-term. Nevertheless, the purpose of this variable

is to identify large variations (whether in the short or long-term) in this assets' amount, which means that this small limitation will not reduce the reliability of the results obtained.

The control variables were chosen based on accounting choices' literature and based on qualitative analysis carried out previously through interviews with managers, a credit analyst and an ex-auditor. Liquidity  $i,t-1$  represents the current liquidity ratio in the previous year (t-1). Size  $i,t$  reflects firms' total assets in the current year. Leverage  $i,t$  represents the percentage of debts in the company's capital structure in the current year.

Moreover, in the case of public companies, I added the variable "Big Four" to the empirical model, because it seems to be possibly relevant to understand company's accounting choices, especially from the point of view of the previous literature. However, it was not possible to be done for private companies, because this information was not available in the VALOR PRO database. This represents a methodological limitation of this study.

Then, additionally, a second econometric model applied only for public companies is:

$$\text{Choice}_{i,t} = \beta_1 \text{Choice}_{i,t-1} + \beta_2 \text{Choice}_{i,t0} + \beta_3 \text{Liquidity}_{i,t-1} + \beta_4 \text{Size}_{i,t} + \beta_5 \text{Leverage}_{i,t} + \beta_6 \text{Big Four}_{i,t} + \epsilon \quad (3)$$

where: Big Four  $i,t$  is a dummy which demonstrates whether the company is audited by a Big Four audit firm or not.

Additionally, I tested public and private companies separately seeking to observe if the enforcement of investors affects the decision to choose keeping recoverable value-added taxes in current assets or not. It is expected that the low enforcement stimulates the occurrence of status quo bias in manager's decision-making. Thus, private companies may be more likely to be influenced by status quo bias when compared to public companies. This variable is also sustained by the previous qualitative analysis.

Finally, the robustness test was developed with the purpose of analyzing extreme situations involving the liquidity of public and private companies, as this variable can represent a stimulus for managers to manipulate information through an accounting choice that does not represent the company's reality faithfully, as suggested by other studies. Thus, the comparison between companies that are in opposite liquidity situations (high and low) sought to verify if the evidence of status quo bias is present even when

companies have greater or lower incentives to change opportunistically the asset's accounting classification.

### 3.3.3 Dependent and independent variables

The dependent variables were determined based on accounting choices literature and the evidence obtained through the previously qualitative analysis. Table 3.2 contains the description and the measurement of dependent and independent variables.

Table 3.2 - Definition of the variables.

Variable	Definition	Measurement	References
<b>Choice t</b>	Dependent variable. Company's classification choice in the current year: 1- short-term classification; 0- long-term classification.		
<b>Choice t-1</b>	Company's classification choice in the previous year: 1- short-term classification; 0- long-term classification.  This variable is a proxy for status quo bias in accounting choices and it aims to capture the influence of previous accounting choice on current accounting choice.  <b>Expected signal: positive</b>	Dummy 0 or 1:  1 – if current recoverable value-added taxes are higher than non-current recoverable value-added taxes and current recoverable value-added taxes are higher than current payable value-added taxes;  0 – Otherwise	Kempf and Ruenzi (2010); El Harbi and Toumia (2020)
<b>Choice t0</b>	Company's classification choice in the first year of the panel data: 1- short-term classification; 0- long-term classification. This variable is a proxy for status quo bias in accounting choices it aims to capture the influence of the first-year accounting choice on present accounting choice.  <b>Expected signal: positive</b>		
<b>Liquidity t-1</b>	Debt agreements usually include covenants considering leverage, liquidity and profitability terms. So, pressure from creditors may affect managers' accounting decisions. Solvency index: capture company's incentive to not changing the classification of recoverable value-added taxes due to liquidity problems or covenants issues. Then, the lower the company's liquidity in the previous year, the greater the probability that the manager will choose to keep recoverable value-added taxes classified in current assets.  <b>Expected signal: negative</b>	Current Liquidity t-1 = Current Assets t-1 / Current Liabilities t-1	Dhaliwal, Salamon, and Smith (1982); Watts and Zimmerman (1986); Astami and Tower (2006)

<b>Leverage t</b>	Debt agreements usually include covenants considering leverage, liquidity and profitability terms. Firms with high leverage level can choose keeping recoverable value-added taxes in current assets to improve their image and expand its possibility of acquiring new debts. In addition, it can be also a mechanism to avoid covenants violation. Then, the greater the leverage, the greater the probability of manager classify recoverable value-added taxes in current assets.	Leverage t = Total Debts t / Total Assets t	Dhaliwal, Salamon, and Smith (1982); Watts & Zimmerman (1990); Astami and Tower (2006); Quagli and Avallone (2010)
<b>Expected signal: positive</b>			
<b>Size t</b>	Proxy for company's political visibility (political costs). The larger the company, the more attention it tends to attract from stakeholders, influencing the level of enforcement in its institutional environment.	Ln Total Assets in current year.	Bowen, Noreen and Lacey (1981); Watts and Zimmerman, (1986); Missonier-Piera (2004); Astami and Tower (2006); Quagli and Avallone (2010).
<b>Expected signal: positive</b>			
<b>Big Four t</b>	Big audit firms can press or influence companies to choose certain accounting choices and policies. So, it is possible that the fact that an audit firm is part of the "Big Four" group affects the accounting choice related to recoverable value-added taxes. Moreover, a big audit firm may represent a higher enforcement for companies choose classify recoverable value-added taxes on non-current assets. Then, if a company is audited by a "Big Four", it is expected that manager is less likely to choose keeping recoverable value-added taxes in current assets.	Dummy 0 or 1: 1- If company is audited by a "Big Four": Deloitte; Ernst & Young; KPMG; PwC. 0- Otherwise	Cole, Branson and Breesch (2013); Silva, Mendes and Martins (2016); Silva and Martins (2018)
<b>Expected signal: negative</b>			

**Legenda:** PwC= PricewaterhouseCooper.

The dependent variable (choice i,t) and the lagged independent variables (choice t-1 and choice t0) were proxies developed to capture status quo bias. Methodologically, I considered that firm has chosen to classify the recoverable taxes in current assets when the taxes amount in current assets exceeds the taxes amount in non-current assets and, additionally, the taxes amount in current assets exceeds the amount of payable value-added taxes in current liabilities. It is worth mentioning that the decision to limit the classification identification only to the value-added recoverable taxes in current assets that exceeds the value-added taxes payable in current liabilities is based on the following excerpt from CPC 26 (2011, p.12): "the company should not offset assets and liabilities

or income and expenses, unless the compensation is required or permitted by a Technical Pronouncement, Interpretation or CPC guidance”.

Furthermore, it is important to point another methodological limitation of this study, that is the fact that the variable “current payable value-added taxes” represents the sum of “current payable value-added taxes” and “employee salaries amount” because of a limitation in database. However, the amount of payable value-added taxes is much more representative than the employee salaries, making the calculation of status quo variable even more conservative and not interfering in the results’ creditability.

Moreover, Table 3.3 and Table 3.4 presents the correlation matrix and VIFs for all companies and for public companies, separately. The results presented imply that there is not a problem of multicollinearity, especially considering that the VIF for each variable is very low. However, it is worth mentioning that the applicability of VIFs in this study is limited, since their calculation is based on linear regressions, while this research uses dynamic panel probit models. In addition, Shapiro-Wilk’s test demonstrated that variables do not present normality. So, I decided to use the Spearman correlation test, once it seems to be the most appropriate method for analyzing correlation in this situation.

Table 3.3 - VIF and correlation matrix for all companies (Spearman correlation).

VIF and correlation matrix							
	VIF	(1)	(2)	(3)	(4)	(5)	(6)
Choice t (1)	-	1.000					
Choice t-1 (2)	1,35	0.5111*	1.000				
Choice t0 (3)	1,35	0.3680*	0.5056*	1.000			
Liquidity t-1 (4)	1,09	0.0729*	0.0813*	0.0651*	1.000		
Leverage t (5)	1,10	0.0310*	0.0374*	0.0311*	- 0.3806*	1.000	
Ln Total Asset t (6)	1,09	0.0170*	0.0299*	- 0.0052	- 0.1502*	0.3104*	1.000

Note: \*p < 0.05

Table 3.4 - VIF and correlation matrix for public companies (Spearman correlation).

VIF and correlation matrix- Public companies								
	VIF	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Choice t (1)	-	1.000						
Choice t-1 (2)	1.19	0.4938*	1.000					
Choice t0 (3)	1.21	0.2913*	0.3983*	1.000				
Liquidity t-1 (4)	1.07	0.1016*	0.1028*	0.0687*	1.000			
Leverage t (5)	1.19	0.0346	0.0531*	0.0704*	- 0.2802*	1.000		
Ln Total Asset t (6)	1.13	0.0576*	0.0788*	0.0915*	- 0.1048*	0.3463*	1.000	
Big Four t (7)	1.02	0.0024	0.0083	0.0841*	- 0,0915*	0.0873*	0.0830*	1.000

Note: \*p < 0.05

As demonstrated above (Table 3.3 and Table 3.4), both the lagged variables (choice t-1 and choice t0) presented significative correlation with de dependent one

(choice t), which can be an initial evidence of accounting choice persistence. Furthermore, all variables in the model proved to be significant and correlated with the dependent variable.

In the case of public companies' group (Table 3.4), on the other hand, I can verify that the variable related to audit company (Big Four) does not present a visible or significant correlation with the dependent variable, suggesting that it may not affect companies' choice. The same analysis can be done for the variable "leverage t", which does not present significance. With regard to the other variables, they also presented significant correlation.

### 3.4 RESULTS AND DISCUSSION

#### 3.4.1 Estimation results

Table 3.5 presents the descriptive statistics for total sample, including private and public companies' data.

Table 3.5- Descriptive statistics- Total Sample.

Descriptive statistics- Total Sample						
Variables	Obs.	Mean	Median	Std. Dev.	Min.	Max.
Choice t	27.338	0.2733	0	n.a.	0	1
Choice t-1	27.338	0.2618	0	n.a.	0	1
Choice t0	27.338	0.2279	0	n.a.	0	1
Liquidity t-1	27.338	2.8399	1.4847	27.2562	0.0069	817.6
Leverage t	27.338	0.2115	0.1621	0.20706	0	1.675885
Ln Total Asset t	27.338	12.5906	12.4806	1.8356	4.1896	21.4919
Big Four t	2.161	0.92318	1	n.a.	0	1

**Note: n.a. = not applicable.**

In the case of dummy variables, I do not present the standard deviation, once it not seems to be total applicable in this situation. Despite the high variability of "liquidity t-1" and "leverage t", as observed by the minimum, maximum and standard deviation respective values, the mean and the median of these variables are close to each other, implying a low probably impact of extreme values in our results. Furthermore, the dummy variables for choice present median 0, which implies that most part of sample choose to classify value-added recoverable taxes in non-current assets. On the other hand, the variable for audit suggests that the majority of companies are audited by a Big Four company, once the median of this variable is 1 and the mean equals 0,92.

To better analyze these variables in the sample, I also presented their frequency in Table 3.6.

Table 3.6- Frequency of dummy variables.

Frequency of dummy variables							
Variables	Total sample		Private companies		Public companies		
	Frequency	Percent	Frequency	Percent	Frequency	Percent	
Choice	0	19,865	72.67	17,516	71.80	2,945	79.86
	1	7,471	27.33	6,881	28.20	593	20.14
Big Four	0	-	-	-	-	166	7.68
	1	-	-	-	-	1,995	92.32
<b>Total</b>		27,336	100.00	24,397	100.00	2,945	100.00

**Note(s): Choice- 1 (current asset classification), 0 (non-current asset classification); Big Four- 1 (big four), 0 (non-big four)**

As it is possible to observe, the accounting choice of classification in current assets represents around 20% to 30% of the analyzed samples. In addition, in relation to the audit variable, I can infer that almost 90% of sample (public companies) is audited by a Big Four company, which suggests a high concentration of observations that assume value 1 in the sample. Then, I expect that this situation can influence the significance of this variable in the empirical model. It is worth mentioning that the information about the audit firm was only available for the database of public companies and this is the reason why I do not present this variable to the private companies in the sample.

Table 3.7 reports the results of dynamic panel probit for all sample (private and public companies). The McKelvey–Zavoina pseudo-R2, which is equal to 0.245, suggests that our model fits well and all explanatory variables proved to be significant to explain the company's accounting choice decision.

Table 3.7 - Dynamic panel random-effects probit for public and private companies.

Model 1: Dynamic panel random-effects probit for public and private companies					
	Coefficient	Std Erro	Z	P-value	
Constant	-1.4085	0.0925	-15,23	0.000	***
Choice t-1	0.9042	0.2905	31,13	0.000	***
Choice t0	0.8297	0.3708	22,38	0.000	***
Liquidity t-1	0.0025	0.0009	2,76	0.006	**
Size t	0.1308	0.0074	1,77	0.076	*
Leverage t	0.1071	0.0612	1,75	0.080	*
Number of observations	27,338				
Number of groups	5,256				
McKelvey and Zavoina's R2	0.2450				
AIC	24,526.62				

<b>BIC</b>	24,584.14
<b>Wald <math>\chi^2</math> (5)</b>	3,262.13
<b>Prob &gt; <math>\chi^2</math></b>	0.000
<b>LR <math>\chi^2</math> (5)</b>	371.120
<b>Prob &gt; <math>\chi^2</math></b>	0.000
<b>Sigma u</b>	0.6141
<b>Rho</b>	0.2739
<hr/>	
<b>Note(s): *p &lt; 0.10; **p &lt; 0.05; ***p &lt; 0.01</b>	
<hr/>	

I found that both variables for status quo bias (“choice t-1” and “choice t0”) are positive and significant at the 1% level, just as expected. It suggests that current accounting choice of classification is influenced positively by previous accounting choice (i.e., evidence of status quo bias). Additionally, I found that accounting’s choice is persistent over time, once the initial value (choice t0) also proved to influence the current choice positively. Then, these results validate the first hypothesis proposed in this research (H1: Accounting choices related to an asset with changing conditions under low accounting regulation can be influenced by the status quo bias in firms’ institutional context).

In addition, “liquidity t-1” presented significance at the 1% level and its coefficient is positive. The coefficient signal contradicted the initial expectations, however, a possible explanation is that firms with higher current liquidity tend to leave a great part of value-added taxes recoverable classified in current assets, even though these companies do not need to increase their short-term liquidity. Then, it supports the presence of status quo bias on firms’ decision, indicating that firms classify value-added taxes in the current assets in a first moment, what is expected, but opt to keep this amount, that may not be recoverable in short-term, allocated in current assets, even when this choice cannot make significative difference for company’s financial situation image.

Moreover, the variables “leverage t” and “size t” also presented significance in the model at 10% level, suggesting that these variables may influence firm’s decision about classification of value-added taxes. The leverage appears to be positively correlated with the choice to keep value-added taxes recoverable classified in current assets, as expected before. It supports the literature findings and suggests that firms with high leverage tend to keep the amount of value-added taxes classified in current assets. It can be explained because firms in this situation need to attract new credits in the market and, to achieve this goal, managers may seek to show a minimum level of financial health to creditors. Other possible explanation can be related to firms avoiding covenants’

violation, as suggested by previous studies (e.g., Watts & Zimmerman, 1990; Astami & Tower, 2006; Quagli & Avallone, 2010).

Finally, “size t” is also positively related with the choice to keep value-added taxes classified in current assets, contradicting the initial expectation. According to literature, the bigger the company, the greater the political cost and, consequently, the less the possibility of the company to keep value-added taxes recoverable classified in current assets. On the other hand, a possible explanation for this result is that even companies with high political costs may opt to keep the amount of value-added taxes classified in short-term, suggesting that status quo is a strong bias and affects even big firms.

After testing all the companies together, I decided to segregate the sample according to companies’ enforcement (public and private companies). This segregation was important in order to test the second hypothesis, through which it seeks to analyze whether public companies are less susceptible to the status quo bias due to the enforcement (monitoring) exercised by investors. Then, Table 3.8 reports the results for private companies and Table 3.9 reports the results for public companies.

Table 3.8 - Dynamic panel random-effects probit for private companies.

<b>Model 2: Dynamic panel random-effects probit for private companies</b>					
	<b>Coefficient</b>	<b>Std Erro</b>	<b>Z</b>	<b>P-value</b>	
<b>Constant</b>	-1.5517	0.1024	-15.15	0.000	***
<b>Choice t-1</b>	0.8996	0.3067	29.32	0.000	***
<b>Choice t0</b>	0.8302	0.3894	21.32	0.000	***
<b>Liquidity t-1</b>	0.0025	0.0009	2.81	0.005	***
<b>Size t</b>	0.0257	0.0083	3.11	0.002	***
<b>Leverage t</b>	0.1453	0.0642	2.26	0.024	**
<b>Number of observations</b>	24,397				
<b>Number of groups</b>	4,848				
<b>McKelvey and Zavoina’s R2</b>	0.2513				
<b>AIC</b>	22,142.90				
<b>BIC</b>	22,199.61				
<b>Wald <math>\chi^2</math> (5)</b>	3,007.44				
<b>Prob &gt; <math>\chi^2</math></b>	0.000				
<b>LR <math>\chi^2</math> (5)</b>	331.04				
<b>Prob &gt; <math>\chi^2</math></b>	0.000				
<b>Sigma u</b>	0.6193				
<b>Rho</b>	0.2772				
<b>Note(s): *p &lt; 0.10; **p &lt; 0.05; ***p &lt; 0.01</b>					

The results reported in Table 3.8 confirm that all variables in the model are relevant to explain firm’s accounting choice in the context of private companies, since all

variables proved to be significant at 1% or, at least, 5% level. As reported in the previous test, all variables presented positive coefficients, which indicates a direct relationship between the independent variables and the dependent one. In addition, the McKelvey–Zavoina pseudo-R2 is equal to 0.2513 and, in agreement with the previous results, it implies that the model fits well.

Then, both “choice t-1” and “choice t0” demonstrated to be positive and significant at 1% level, suggesting the presence of status quo bias in the context of private company. Likewise, the variables “size t” and “liquidity t-1” are positive and significant at 1% level, implying that, even in large private companies with high current liquidity value, the main option is to keep the initial accounting choice and leave the value-added taxes recoverable classified in current assets over time. This analysis corroborates the initial argument proposed in first hypothesis, supporting evidence that point to the presence of status quo bias in private companies’ context. Finally, the “leverage t” is significant at 5% level and presents a positive coefficient, suggesting that private firms with high level of leverage tends to keep value-added taxes recoverable classified in current assets, which was already expected according to previous literature, that is supported by a rational perspective of accounting’s choice.

Table 3.9- Dynamic panel random-effects probit for public companies.

<b>Model 3: Dynamic panel random-effects probit for public companies</b>					
	<b>Coefficient</b>	<b>Std Erro</b>	<b>Z</b>	<b>P-value</b>	
<b>Constant</b>	-1.9631	0.3528	-5.56	0.000	***
<b>Choice t-1</b>	0.9304	0.0901	10.32	0.000	***
<b>Choice t0</b>	0.6883	0.1189	5.79	0.000	***
<b>Liquidity t-1</b>	0.0062	0.0134	0.46	0.644	
<b>Size t</b>	0.0416	0.024	1.73	0.083	*
<b>Leverage t</b>	-0.0023	0.2022	-0.01	0.991	
<b>Number of observations</b>	2,945				
<b>Number of groups</b>	408				
<b>McKelvey and Zavoina’s R2</b>	0.1853				
<b>AIC</b>	2,3808.6				
<b>BIC</b>	2,412.77				
<b>Wald <math>\chi^2</math> (5)</b>	244.26				
<b>Prob &gt; <math>\chi^2</math></b>	0.000				
<b>LR <math>\chi^2</math> (5)</b>	32.81				
<b>Prob &gt; <math>\chi^2</math></b>	0.000				
<b>Sigma u</b>	0.6483				
<b>Rho</b>	0.2959				

Note(s): \*p < 0.10; \*\*p < 0.05; \*\*\*p < 0.01

On the other hand, Table 3.9 shows that only status quo variables and “size t” demonstrated to be significant when I analyzed public companies separately, which

implies that the other variables were not relevant for explaining the company's current accounting classification choice in this scenario. Nevertheless, the McKelvey–Zavoina pseudo-R<sup>2</sup> is equal to 0.1853, which does not appear to be a low explanatory power, when compared to previous models.

In agreement to previous results, “choice t-1” and “choice t0” are also positive and significant at 1% level, supporting the existence of status quo bias in public companies. In addition, the variable “size t” is significant at 10% level and present a positive coefficient, as reported before.

However, “liquidity t-1” and “leverage t” are not significant variables in this model. It suggests that the level of current liquidity and companies' structure capital do not affect the decision of keeping or not value-added taxes recoverable classified in current assets. It may be explained by the higher level of enforcement presented in public companies, resulting from the monitoring of investors, which probably reduces the margin for earnings management through classification's choice.

Moreover, seeking to verify the adherence of the second hypothesis, I compared the coefficients of the variable “choice t0” and “choice t-1” in both contexts: private and public companies. Then, I observed that the coefficient  $\beta_2$  in the model for private companies is higher than the coefficient presented in public companies. Moreover, the difference between  $\beta_1$  and  $\beta_2$  in each sample (private and public firms) is higher for public companies than for private companies. So, it is possible that private companies are more likely to keep the same accounting choice made in the initial year, deviating less from this choice over the years. In public companies, on the other hand, the accounting choice over the years can diverge more easily from the initial choice (if compared with private firms). In this context, these results suggest some evidence that the status quo bias can be more apparent in private companies than on public firms.

Therefore, there is some evidence that public companies are less likely to be affected by status quo in accounting's choice of classification, confirming the second hypothesis (H2: Public companies are less likely to be affected by status quo effect on accounting choices when compared to private companies). It can be theoretically supported by investor monitoring, which reflects a higher level of enforcement in these companies, making them more likely to leave the state of inertia characterized by the presence of the status quo bias.

Table 3.10 also presents results for public companies, but considering another variable in this context: the audit firm (Big Four). Prior studies consider audit's firm as a

determinant of accounting choices made by companies. Moreover, the previous qualitative analysis suggested that this variable can interfere in accounting information quality. Then, I decided to add this variable in the model and analyze if it adds explanatory power to the model.

Table 3.10 - Dynamic panel random-effects probit for public companies (including audit variable)

<b>Model 4: Dynamic panel random-effects probit for public companies (including audit variable)</b>					
	<b>Coefficient</b>	<b>Std Erro</b>	<b>Z</b>	<b>P-value</b>	
<b>Constant</b>	-1.6319	0.4087	-3.99	0.000	***
<b>Choice t-1</b>	1.0678	0.1020	10.47	0.000	***
<b>Choice t0</b>	0.6178	0.1280	4.83	0.000	***
<b>Liquidity t-1</b>	0.0030	0.0153	0.20	0.844	
<b>Size t</b>	0.2383	0.0266	0.89	0.371	
<b>Leverage t</b>	0.0538	0.2495	0.22	0.829	
<b>Big Four t</b>	-0.0867	0.1735	-0.50	0.617	
<b>Number of observations</b>	2,161				
<b>Number of groups</b>	295				
<b>McKelvey and Zavoina's R2</b>	0.216				
<b>AIC</b>	1,761.81				
<b>BIC</b>	1,807.24				
<b>Wald <math>\chi^2</math> (5)</b>	222.80				
<b>Prob &gt; <math>\chi^2</math></b>	0.000				
<b>LR <math>\chi^2</math> (5)</b>	19.72				
<b>Prob &gt; <math>\chi^2</math></b>	0.000				
<b>Sigma u</b>	0.6327				
<b>Rho</b>	0.2859				

**Note(s): \*p < 0.10; \*\*p < 0.05; \*\*\*p < 0.01**

In fact, the McKelvey–Zavoina pseudo-R2 is equal to 0.216, proving to be greater than the explanatory power of the previous model, which does not consider the “Big Four t” variable. In addition, AIC and BIC values are lower than previous model, implying that this model has presented more proximity to the ideal model and, consequently, greater adherence to the theoretical model.

Otherwise, the results suggest that only status quo variables are positive and significant at 1% level, implying that no other variable was significant in the model, not even the “Big Four t” one. Even the variable “size t” that was significant in previous model, is no longer relevant to explain current classification accounting’s choice in this model. One explanation for insignificance of the audit variable may be the fact that more

than 90% of the sample were audited by a Big Four firm, assuming the value “1”. Then, there was no significant change in this variable.

It is important to emphasize that the variable “Big Four t”, despite not having been significant in the model, seems to be important to analyze managers’ accounting choice, according to literature. However, I was not able to collect this variable for private companies, due to a limitation in the database, which implies that the non-interference of the audit company in managers’ accounting choice may be a methodological limitation. Therefore, I cannot say for sure that auditing firm does not influence in managers’ accounting choice of classification, because I could not test this variable for all companies.

### 3.4.2 Robustness tests

In order to verify the consistency of the results obtained previously, I decided to analyze extreme groups of the sample, seeking to capture the firm’s incentive to use classification’s accounting choice as a mechanism to improve their current liquidity, comparing two different situations: companies with low current liquidity and companies with high current liquidity (as explained before in research design section). Then, the results for robustness tests are presented in Table 3.11 and Table 3.12, respectively.

Table 3.11- Dynamic panel random-effects probit for low liquidity companies.

<b>Model 5: Dynamic panel random-effects probit for low liquidity companies (i.e., Current Liquidity t &lt; 1,0138)</b>					
	<b>Coefficient</b>	<b>Std Erro</b>	<b>Z</b>	<b>P-value</b>	
<b>Constant</b>	-0.8996	0.1591	-5.65	0.000	***
<b>Choice t-1</b>	1.0885	0.0539	20.19	0.000	***
<b>Choice t0</b>	0.7003	0.0627	11.16	0.000	***
<b>Liquidity t-1</b>	0.0017	0.0008	1.99	0.047	**
<b>Size t</b>	-0.0208	0.0131	-1.59	0.113	
<b>Leverage t</b>	0.1071	0.0612	1.56	0.118	
<b>Number of observations</b>	6,835				
<b>Number of groups</b>	2,041				
<b>McKelvey and Zavoina’s R2</b>	0.297				
<b>AIC</b>	6,500.24				
<b>BIC</b>	6,548.25				
<b>Wald <math>\chi^2</math> (5)</b>	1,188.32				
<b>Prob &gt; <math>\chi^2</math></b>	0.000				
<b>LR <math>\chi^2</math> (5)</b>	39.80				
<b>Prob &gt; <math>\chi^2</math></b>	0.000				

<b>Sigma u</b>	0.4547
<b>Rho</b>	0.1713

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**Note(s): \*p < 0.10; \*\*p < 0.05; \*\*\*p < 0.001**

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The McKelvey–Zavoina pseudo-R2, which is equal to 0.297, suggests that the model fits well for this group. Moreover, as supported by the results demonstrated in Table 3.11, I can infer that status quo bias is also present when companies experience a situation of serious liquidity problems, once the lagged variables are also positive and significant at 1% level. Beyond these variables, however, only the variable “liquidity t-1” is positive and significant at 5% level. It suggests that when analyzing companies with liquidity problems, the leverage and the size are not significant to explain firms’ accounting choice of classification.

Table 3.12- Dynamic panel random-effects probit for high liquidity companies.

<b>Model 6: Dynamic panel random-effects probit for high liquidity companies (i.e., Current Liquidity t &gt; 2,4043)</b>					
	<b>Coefficient</b>	<b>Std Erro</b>	<b>Z</b>	<b>P-value</b>	
<b>Constant</b>	-1.5461	0.1723	-8.97	0.000	***
<b>Choice t-1</b>	0.9849	0.0586	16.80	0.000	***
<b>Choice t0</b>	0.7411	0.0713	10.39	0.000	***
<b>Liquidity t-1</b>	-0.0089	0.0074	-1,21	0.227	
<b>Size t</b>	0.0101	0.0133	0.76	0.449	
<b>Leverage t</b>	0.3637	0.1016	3.58	0.000	***
<b>Number of observations</b>	6,836				
<b>Number of groups</b>	2,309				
<b>McKelvey and Zavoina’s R2</b>	0.2346				
<b>AIC</b>	5,749.16				
<b>BIC</b>	5,796.97				
<b>Wald <math>\chi^2</math> (5)</b>	933.22				
<b>Prob &gt; <math>\chi^2</math></b>	0.000				
<b>LR <math>\chi^2</math> (5)</b>	43.59				
<b>Prob &gt; <math>\chi^2</math></b>	0.000				
<b>Sigma u</b>	0.4960				
<b>Rho</b>	0.1974				

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**Note(s): \*p < 0.10; \*\*p < 0.05; \*\*\*p < 0.001**

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On the other hand, Table 3.12 presents the opposite perspective (i.e., firms with high liquidity indicator). The McKelvey–Zavoina pseudo-R2 is equal to 0.2346, confirming a good power of explanation for the model. Additionally, I can observe that status quo evidence is also present in the sample, suggesting its robustness (significance at 1% level). Liquidity and size are not significant, but the “leverage t” demonstrated to be significant and positive at 1% level, suggesting that, despite the evidence of the status

quo in accounting's choice, firms with high leverage are more likely to keep value-added taxes recoverable classified in current assets. This result is consistent with the previous ones, confirming evidence of rational behavior presented by literature (Dhaliwal, Salamon, & Smith, 1982; Watts & Zimmerman, 1990; Astami & Tower, 2006; Quagli & Avallone, 2010).

### **3.4.3 Discussion**

This article sheds light on the relevance of considering the influence of status quo bias in accounting choices' decisions in a context of changing conditions and low accounting enforcement, seeking to analyze this bias at an institutional perspective. However, my intention is not to deny or exclude other economic theories that explains individuals' decision-making under a rationality perspective, but improve the scientific knowledge in accountings' choice, by adding other variables that may affect managers' decision and are supported by the findings of Behavioral Finance literature.

Our results provide both rational and behavioral evidence about decision-making related to accounting choices under a context of low accounting regulation. I observed that liquidity, size and leverage may affect the accounting choice of classification in this scenario, which was previously theorized by Agency Theory and expected when analyzing accounting choices' literature (e.g., Dhaliwal, Salamon, & Smith, 1982; Watts & Zimmerman, 1986; 1990; Astami & Tower, 2006; Quagli & Avallone, 2010). On the other hand, the proxies for the status quo are also significant in explaining the results, which contributes to the literature by suggesting that a behavioral bias may also affect companies' accounting choices of classification when in front of a scenario of changing conditions and low accounting regulation.

These results expand the findings presented by Kempf and Ruenzi (2006) and El Harbi and Toumia (2020), who demonstrated strong influence of past choices on current decisions (i.e., evidence of status quo bias) in the context of different institutions. Thus, they reinforced the influence of behavioral bias in individuals' decision-making, especially at the institutional level, contradicting the argument that individuals make rational decisions in any situation, as suggested by mainstream literature (e.g., Jensen & Meckling, 1976; Healy, 1985; Simon, 1990; Barth, Landsman, & Lang, 2008; Kouki, 2018).

The possibility that decision-making may be affected by behavioral biases has been extensively studied at individuals' level, since Samuelson and Zeckerson (1969), and some studies proposed this analysis at the institutional level before (i.e., Kempf & Ruenzi, 2006; El Harbi & Toumia, 2020). However, to my knowledge, until now this possibility in managers' accounting choices has not been discussed in a practical way by literature.

In addition, I observed that public firms are less affected by status quo bias compared to private ones. This can be explained by investors' enforcement, which collaborates for firms to leave the inertial state of the initial classification over years. Besides that, the investors' enforcement demonstrated to be efficient enough to control earnings' management incentive to change classification over years, once leverage and liquidity did not seem to be relevant to explain the accounting choice of classification in public firms. In the private companies these results were the opposite. Finally, the audit firm did not seem to make any difference in firms' decision of classification in public firms' context.

In the context of private companies, I observed that firms' decisions involve both rational and behavioral motivations, once the leverage influences the decision to keep value-added taxes recoverable classified in current assets, but also the initial classification choice is kept over the years.

Moreover, private companies seem to be more likely to be influenced by status quo bias than public ones. It can be explained by a low level of enforcement practiced by creditors (unlike the enforcement practiced by investors in public companies), which makes companies keep their initial classification choice over the years, due to the lack of sufficient incentives to change, keeping most of them in a state of inertia. Additionally, it also suggests that creditor plays a less important role in monitoring firms' accounting choices compared to the role of investors in public firms.

### **3.5 CONCLUSIONS**

This paper sheds light on the importance of considering the status quo bias when analyzing accounting choices. Despite the evidence that behavioral biases can affect individuals' decision-making, the mainstream literature does not seem to consider this possibility when analyzing the determinants of managers' accounting choices as a whole. There is strong evidence that, when in front of alternatives, individuals tend to keep their

choices in the status quo one and this can also be expected for managers' accounting choices. Therefore, this paper analyzed whether accounting choices are also subject to status quo bias at the institutional level, in a context of low accounting enforcement and asset's changing conditions.

I analyzed 5,256 Brazilian private and public companies over 9 years, from 2011 to 2019, using a random-effects probit panel data. The empirical evidence suggests a positive influence of the previous accounting choice of classification on the current one over nine years, which can be interpreted as evidence of status quo bias. It is also important to emphasize that these results are robust for companies with liquidity issues.

The results have also suggested that the control variables- liquidity, size and leverage- may also affect the current accounting choice in private companies. So, the findings support the idea that both Behavioral Finance literature and Agency Theory are important to explain accounting choices' determinants. On the other hand, although public firms seem to be less affected by status quo when compared to private ones, the control variables were not significant for these companies. This evidence can probably be explained by investor's enforcement, who plays an important role in monitoring managers' decision-making.

Then, the main contribution of this paper is to show empirically that a behavioral bias (status quo) may also interfere on managers' decision-making, which emphasizes that literature needs to analyze accounting choices from a wider perspective. Moreover, the influence of status quo bias on accounting choices means that this variable may interfere on the quality of accounting information in a context of low accounting enforcement and must be consider by stakeholders on their decision-making process.

Overall, this study contributes to a better understanding about accounting choices determinants, suggesting that Behavioral Finance and Agency Theory need to be analyzed together in order to expand and improve our knowledge about this matter. Moreover, in a practical perspective, this paper provides information that may support stakeholders in their analysis, presenting new variables that they should take into account in their decision-making. In the case of the regulatory bodies, I expect that the findings may help them in the process of preparing accounting standards, by improving their understanding about how status quo bias can affect managers' accounting choices when there is a lack of specific accounting standard.

It is also important to mention that this research presents some limitations. This paper analyzed a specific accounting choice related to value-added taxes, which means

that it is possible that the low accounting enforcement can have contributed to find more strong evidence of status quo bias. There was not in the scope of this study to extend the analysis to other accounting choices and to a context of higher accounting regulation (as a way of comparing opposing scenarios), but it can be useful to confirm the robustness of the results in other contexts. In addition, from a methodological point of view, the sample is composed only for Brazilian companies, which implies that the findings possible may not be applicable to other countries. Finally, these restrictions open up areas for future research by looking at whether the results keep robust for other accounting choices and contexts, applying this model to different countries and socio-cultural environments.

#### **4 FINAL REMARKS**

In this section, I present the main contributions and limitations of this research, considering the findings obtained from the two papers.

In the first paper, I found evidence of status quo bias by analyzing managers' speeches and decisions in relation to ICMS Accumulated Credit. In addition, I could identify important variables that can also influence managers in their classification choice: the audit firm and the company's structure (private or public). The analysis suggested that managers support part of their decisions considering the position of the audit firm, which makes the auditing an important variable to be considered in the second paper. Moreover, managers of private companies demonstrated to be much more susceptible to status quo bias than a manager of a public company, which sheds light on the need to analyze private and public companies separately in the empirical model.

So, the evidence provided by the first study contributed a lot to provide inputs for the economic model applied in the second paper, making necessary an empirical analysis to validate the status quo evidence captured through the interviews. Then, the second paper verified the argument presented in the first one and found empirical evidence of status quo bias, both in private and public Brazilian companies. Indeed, the findings suggested that the status quo is more evident in private companies rather than in public ones, but this behavioral bias demonstrated to affect both structures of firms, increasing the validation of the findings obtained from the previous qualitative analyses. On the other hand, the audit firm were not relevant for public firms in practice, which can maybe be explained by the limitation of this variable, that excluded the analysis of private companies.

Finally, the combination of a qualitative with a quantitative approach (mixed methods research) may provide a better and more complete understanding about the influence of status quo bias on managers' accounting choices, reinforcing the need to consider the knowledge presented by Agency Theory and Behavioral Finance together, in order to provide a wider and more realistic explanation for accounting choices. Furthermore, the second paper adds to the findings of the first one by verifying the status quo bias in a large sample of private and public firms, suggesting that it is not just a behavior identifiable in a small sample of companies. The quantitative study also confirmed that rational and behavioral variables are important to explain managers' accounting choices under a context of low accounting enforcement and, especially, that status quo bias seems to perpetuate over years (i.e., an accounting choice made nine years ago may interfere in the current one in many firms). Finally, the second paper was important to bring evidence about the robustness of the qualitative findings, showing that the status quo bias can also be present even when companies face extreme liquidity issues.

It is worth mentioning that this study presents some limitations. As previously presented in each paper, the analysis of other behavioral biases is beyond the scope of this research, which does not mean that there cannot be other biases interfering, also, in the accounting choice process. Furthermore, this research did not analyze a scenario of high accounting enforcement, so the findings cannot be compared from an opposite perspective. However, these limitations also open up opportunities for future research in this area, that can verify the presence other behavioral biases in managers' accounting choices at an institutional perspective as well the impact of different levels of accounting enforcement in their decision-making.

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## APPENDICES

### APPENDIX A

Table 4- Guiding questions- managers of private and public companies.

GUIDING QUESTIONS- MANAGERS OF PRIVATE AND PUBLIC COMPANIES	
Question 1	Which are the activities that generate "ICMS Accumulated Credit"?
Question 2	Is the accumulation of ICMS credit recurring? What is the average amount of credit generated monthly / annually by the company?
Question 3	Is the asset related to "ICMS Accumulated Credit" recognized? If so, when is it recognized in the balance sheet?
Question 4	Does the company demand the use of all the accumulated credit with the government? If so, how often? If you ask only for a part of the available credit, what does the company do with the rest?
Question 5	Can the company recover all the accumulated credit required? If not, what is the average accumulated portion of the credit that the company is able to recover?
Question 6	Where and how does the company use this accumulated credit? What is the destination given to this asset when it is approved?
Question 7	On average, how long does the company take to use this benefit, after the approval of the credit by the government?
Question 8	What is the biggest difficulty in getting the credit approval by the government?
Question 9	Which are the main points asked by the government when the company requests the use of the ICMS Accumulated Credit?
Question 10	When the company cannot recover the credit, or when it does not request the use of this credit, what does the company do with this fiscal asset?
Question 11	Currently, how the "ICMS Accumulated Credit" is classified: current assets or non-current assets?

Question 12	Does the company segregate the "ICMS Accumulated Credit" that will be used in the short-term and in the long-term in the balance sheet? What is the parameter used?
Question 13	Does the company frequently perform impairment tests on this tax asset? What is the parameter used?
Question 14	After homologated (it does not prescribe), does the company test the recoverability of the asset or not? What are the parameters used?
Question 15	Does the company have any legal proceedings involving the tax?
Question 16	Do you believe that the new LC 1.320 (tax rating) will facilitate obtaining approval of the accumulated credit for the company? Why?
Question 17	Do you miss a specific accounting standard for dealing with the "ICMS Accumulated Credit"? Currently, based on which accounting standard are you based to give accounting treatment to the asset?

## APPENDIX B

Table 5- Guiding questions- auditor.

<b>GUIDING QUESTIONS- AUDITOR</b>	
<b>TOPIC 1- PERCEPTION ON MANAGERS' BEHAVIOR</b>	
Question 1	Is there any concern by companies on giving an appropriate treatment for this asset? Is this asset generally representative in the composition of the company's assets?
Question 2	Do they segregate the asset in short and long-term? How do they justify the classification (parameters)?
Question 3	Do you realize any concern to perform recoverability tests? What are the criteria used by companies?
Question 4	Do the companies often get full recoverability to this asset?
Question 5	Do the companies usually segregate the ICMS Accumulated Credit and ICMS recoverable? After homologation, is there any change in the measurement of this asset (in the case of sales discount, for example)?
Question 6	Do companies complain about the absence of specific regulations for this asset or do they find it difficult to give accounting treatment based only on existing standards?
Question 7	Can I say that the value of this asset generally represents the reality of the amount that will be recovered by the companies?
Question 8	Do companies find it difficult to justify the deductibility of the expense related to the impairment of this asset, for income tax calculation purposes? (Cost x Expense)
<b>TOPIC 2- PERCEPTION ON AUDITOR'S BEHAVIOR</b>	
Question 9	Which are the criteria used by the audit to verify the reliability of the information presented by the company on this asset? Which audit tests are normally used to verify this asset?
Question 10	During the audit process, are there many problems related to this asset? Can the audit find objective parameters to verify the value by which the asset should be recognized and compare with the value presented in the company's balance sheet? Which ones?
Question 11	Does the audit consider this a medium / high risk asset, or do you have a greater concern with it because there is no specific accounting treatment or because of the uncertainty that permeates this value measurement?

Question 12	What is the perception of the audit regarding the accounting treatment that should be given to this asset? How should it be done based on current standards? Is there a need for a specific standard to treat this asset, in your opinion, or is the Conceptual Framework enough?
Question 13	Does the audit question the recoverability of this asset frequently? Does the audit make a detailed analysis of recoverability annually?
Question 14	Is there any other specific problem related to this asset?
Question 15	What is the biggest challenge faced during the audit process of this asset?
Question 16	In your perception, the asset value presented in balance sheet by the companies is reliable?

## APPENDIX C

Table 6- Guiding questions- credit analyst.

<b>GUIDING QUESTIONS- CREDIT ANALYST</b>	
<b>TOPIC 1- PERCEPTION ON MANAGERS' BEHAVIOR</b>	
Question 1	Is this asset generally representative in the composition of the company's assets?
Question 2	Do they segregate the asset in short and long-term? How do they justify the classification (parameters)?
Question 3	Is the full recoverability of this asset frequent by most companies? Can I say that the value of this asset generally represents the reality of the value that will be recovered by the companies?
Question 4	Do companies normally segregate the ICMS Accumulated Credit and the recoverable ICMS? After approval, is there any change in the measurement of this asset (i.e., in the case of sale-discount)?
<b>TOPIC 2- PERCEPTION ON ANALYST'S BEHAVIOR</b>	
Question 5	Is the value of ICMS Accumulated Credit presented in the companies' balance sheet relevant to the credit analysis? Do you use any specific criteria to check the reliability of the information presented by the company about this asset?
Question 6	Is the audit opinion about the reliability of this asset taken into account during the company's credit analysis process?
Question 7	Is a specific accounting standard for this asset necessary to be developed, in your opinion, or would it be indifferent for the credit analysis process?
Question 8	In your perception, is the value of this asset presented by the companies in its balance sheet reliable?