THE IMPACT OF REGULATION GOVERNANCE ON FINANCIAL SYSTEM EFFICIENCY: THE IMPORTANCE OF CONSUMER BEHAVIOR

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Abstract

This study focuses on the value structure that correlates improvements in the financial services consumer's decision-making quality with the development of their autonomy. The discussion is based on the concepts of ceremonial and instrumental values, according to Bush (1987). We anchor our analysis on the premise that there is still room for enhancing the results within the National Financial System – NFS – by broadening the scope of initiatives on financial services consumers' education and protection (von Borowski Dodl, 2020). Strengthening this perspective, we emphasize the consumer's role as an agent and the relevance of taking decisions according to their life plans. The analysis is undertaken through the institutional literature lens, considering both schools of thought: Original Institutional Economics (OIE) (drawing on Tauheed, 2013a, 2013b) and New Institutional Economics (NIE) (focusing on North, 1990). From the conjunction of the theoretical apparatus and the applied analysis, we propose a governance policy within the NFS aimed at increasing its efficiency. Effective communication between stakeholders and consumers' participation in the structuring of institutions – by publicly evincing their political power – hold the potential for promoting governance effectiveness. Additionally, although the approach taken focuses on the NFS, the diagnosis process carried out in this study can be easily reproduced in other contexts.

Keywords: Governance, Regulation, Consumer, Institutional Matrix

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1. INTRODUCTION

Habits of thought or subjective mental models are not exclusive mechanisms developed from a certain situation and used only in identical moments. In the interactions between agents in society, the results of decisions and actions allow those to learn about the incentives. Institutions do not define behaviors but act as guiding parameters, indicating probable consequences and suggesting alternative paths. Thus, declaring that from tomorrow onwards everyone should, by law, eat *n* times a day and in a specific way would be insufficient to drive change. The simple publication of a formal rule does not create compliant behaviors.

Previous discussions on banking crises, and their effects on the real economy and the banking sector's regulation processes, highlighted the relevance of microeconomic aspects, such as regulation and governance (Calomiris & White, 1994; Calomiris, 2009, 2011; Levine, 2011; Kroszner & Strahan, 2014). Accordingly, over time, the focus of policymakers and researchers has also been directed towards the consumer's role in financial issues.

By implementing a new law, influential agents can have both good intentions and specific technical knowledge, but can still fail to achieve their initial goal. Different interpretations of the same events can generate governance inefficiencies if not adequately considered. This phenomenon assumes a central role in this study, regarding the deliberate decision-making of financial services consumers in Brazil and the development of their autonomy[1]. We begin with a reference to the government's worries on financial education, based on *Brazil: Implementing the National Strategy* (G20 & OECD, 2013). Among these concerns were changes in the social, economic, and demographical structure of the Brazilian society, with potential impacts on saving, consumption, and investment patterns; new financial products, the enlargement of consumer choice, and the memories of inflation. The report also referenced national research that revealed Brazilians' low financial education levels.

In this regard, von Borowski Dodl (2020) argued that, although there are valuable initiatives related to financial services consumers' protection and education, some results (Amorim, 2017; CBB, 2016, 2017; OECD, 2017, 2020a) suggest that there is room for improvement. Furthermore, to deepen the focus of analysis on the financial services consumer, we identify the individual as an *agent* and the importance of their decisions to be taken according to life plans[2]. For this, the development of their autonomy becomes essential, as it implies responsibility for results.

Therefore, the goal of this study is to propose a governance policy that contributes to raising consistency and efficiency within the National Financial System (NFS). To this end, we begin by presenting the theoretical background, mostly through the institutional economics lens – Original Institutional Economics (OIE) and New Institutional Economics (NIE). From this conceptual framework, and based on Bush (1987), we analyze the normative content of the value structure that correlates improvements in financial services consumers' decision-making quality with the development of their autonomy.

To undertake this qualitative analysis, we organize this paper as follows. Section 2 presents the literature review, focusing on the underlying concepts of the OIE and NIE schools, along with contributions from the philosophy literature and Archer's morphogenetic/morphostasis (M/M) approach; while Section 3 addresses the methodological aspects. Section 4 discusses the diagnosis and applied analysis, and Section 5 concludes.

2. LITERATURE REVIEW

This section addresses the convergence of New Institutionalists' and Original Institutionalists' arguments by underscoring the importance of institutions for relations among stakeholders[3]. Additionally, institutional change is analyzed from a political power perspective. We discuss the difference between *de facto* and *de jure* political power, and the value structure underlying the normative content of institutions.

2.1. Institutions: Original Institutional Economics and philosophy

In this subsection, we briefly present the foundations of institutional analysis from the standpoint of original institutionalists, while also recognizing philosophical contributions. To pursue objectivity, we use two texts by Tauheed (2013a, 2013b). Also, we present the theory of institutional change, emphasizing Bush's (1987) contribution.

For this study, we use Tauheed's discussion on the reconciliation of three important authors' concept of institution within OIE (Veblen, 1909; Commons, 1934; Foster, 1981). "I employ the methodology of critical institutionalism […] Margaret Archer's morphogenetic approach […] is aligned with Roy Bhaskar's critical-realist philosophy, and from OIE […] is aligned with Charles Sanders Peirce and John Dewey's pragmatism" (Tauheed, 2013a, p. 148).

Bhaskar's stratified ontology analyzes reality as an emergent process from the real (lower), actual (middle), and empirical (upper) strata, in which the real refers to a d-structure (deep) where combinations between structures are generated. From these potentially observable (actual) events, those that are actually perceived form the empirical stratum (Tauheed, 2013a).

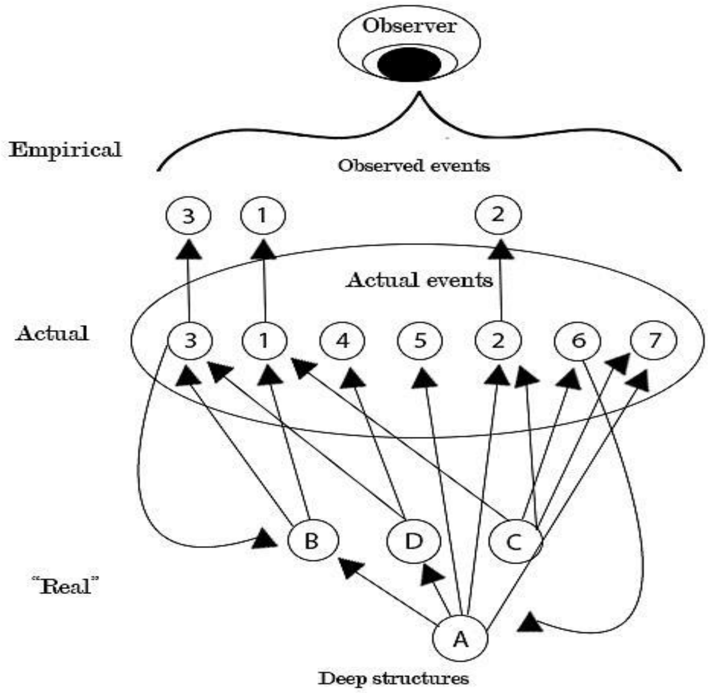
In Figure 1, we present a diagram in which Tauheed expresses the three interconnected strata.

[1] In this paper, we use the problem-solving behavior approach in Katona (1953) as deliberate decision-making: "the arousal of a problem or question, […] deliberation that involves the reorganization and 'direction', […] understanding of the requirements of the situation, […] weighing of alternatives and taking their consequences into consideration and, finally, […] choosing among alternative courses of action" (p. 309).

[2] The term *life plan* refers to the approach outlined by Rawls in "A theory of justice" (1971).

[3] For an interesting parallel between the two theoretical perspectives, see Rutherford (1995).

Figure 1. Bhaskar's stratified ontology



Source: Tauheed (2013a, p. 150).

Tauheed (2013a) elaborated on his construction by decomposing the d-structure into social-structure (s-structure) and human agency. The s-structure comprises r-structure and culture – in consonance with Archer's (1995) M/M approach[4]. The r-structure is determined by past social actions, in the form of resource allocation between agents, while the culture component represents skills, rituals, symbols, and conceptions of the world, accessible to all[5]. Agency interprets the agent's self-perception. "Agency […] is a psychological construct concerning people's belief in the extent of their ability to act according to their agendas" (Tauheed, 2013a, p. 153).

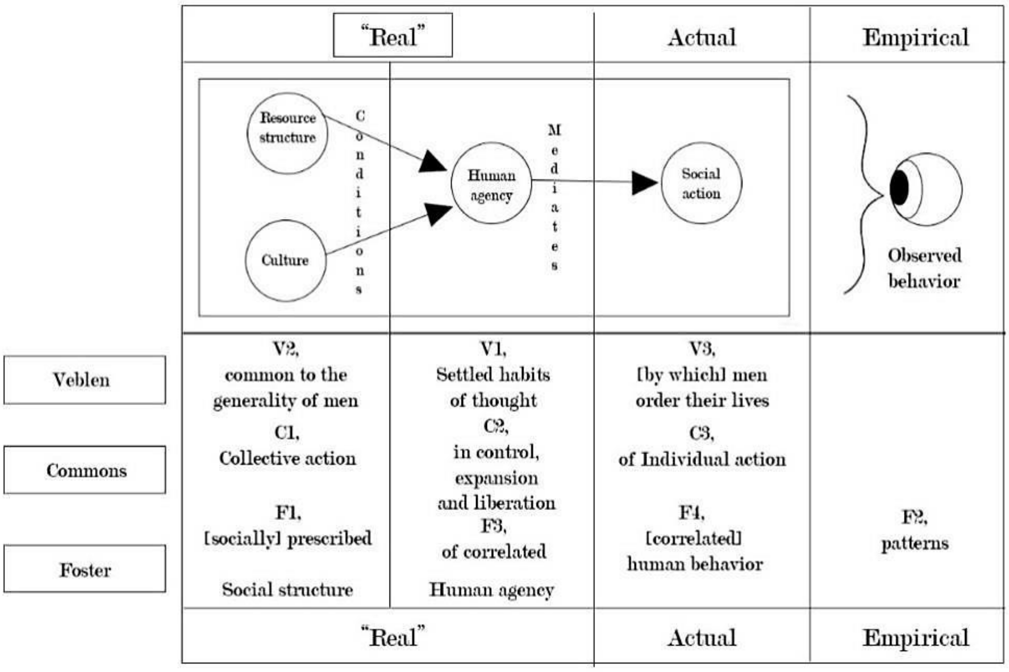
Regarding the analytical segregation between structure and agency, Archer (1995) claimed that "if the 'powers', 'tendencies', 'transfactuality' and 'generative mechanisms' inherent in social structures can exist unexercised (or unrecognized), in open systems like society, then there must be a disjunction between them and the everyday phenomenal experiences of actors" (p. 149). From the morphogenetic perspective, the time variable assumes a decisive role. The precedence of structures over actions and of actions over the transformed structure is the central conception of her approach. According to Archer, the possible and unpredictable results of an open system are a reflection of the interactions between structures and agents, and these consequently produce processes of morphogenesis or morphostasis.

Complementing the analytical structure for reconciling the concept of the institution within OIE, Tauheed (2013a) referred to *social action* as "the emergence of agency into the *actual* stratum" (p. 153).

"In situating the concepts of s-structure (r-structure and culture), agency, and social action, alongside Veblen, Commons, and Foster's definitions of institution, within the framework of Bhaskar's stratified ontology […], each of the former authors' definitions can be interpreted as being concerned with the conditioning of agents by s-structure, but with different foci. Whereas Commons's definition explains the process by which s-structure conditions an agent's present actions, Veblen's focuses on the psychological-social-cultural process and results of the conditioning of agents, and Foster's highlights the empirical patterns resulting from the process of the social conditioning of agents" (Tauheed, 2013a, p. 156).

[4] Tauheed (2013a) wrote: "The possibility of separating s-structure from agency, and vice-versa, via analysis of emergent properties and out-of-phase temporality, is the essence of the analytical dualism at the base of the M/M approach" (p. 157).
[5] Tauheed (2013a) clarified: "Resources may be material and/or ideational, natural and/or man-made, personal and/or social, public and/or private. The focus, in the r-structure sense, is on 'who has what'" (p. 153).

Figure 2. Veblen, Commons, and Foster's definition of institution overlaid on Bhaskar's stratified ontology



Source: Tauheed (2013a, p. 152).

Tauheed (2013a) argued that the three concepts are complementary. Additionally, he emphasized that an institution should be considered as a *process*. "[…] I articulate the critical institutionalist definition of an institution as a *structurally actualized emergent process* […]" (p. 149).

With the previous analysis, we succinctly embody the approach adopted by original institutionalists. To expand upon it and provide a background to institutional change, we begin with Almeida (2011):

"The construction of self-reinforcement by reconstitutive downward causation relies on institutions as a cognitive consonance. The significance of an institution for the behavior of a person takes place through what the person learned about how to interpret the meaning of that institution. As a result, how people build their institutional furniture, or practices, is also a matter of cognition. An institution just exerts influence in the behavior of a person when she is persuaded by and recognizes the institution as a source of information and reinforcement regarding such behavior" (p. 849)

Cognitive consonance relies upon mutually acceptable communication patterns, represented not only by the language used, but also by the values, references, and experiences. By incorporating the institution into their daily life, the agents become subjected to its influence.

The concept of *habit* assumes a fundamental role within the OIE literature. As a new habit is incorporated into the agent's day-to-day life, so are new preferences, interactions, and challenges. Hodgson (2009)[6] summarized this as follows: "the framing, shifting and constraining capacities of social institutions give rise to new perceptions and dispositions within individuals. Upon new habits of thought and behaviour, new preferences and intentions emerge" (p. 16).

In brief, habits act as fuel for the perpetuation of institutions within a society, just as they generate new institutions. Bush (1987) explained that socially prescribed behaviors are internalized by agents through the process of habit formation. Searle (2005) addressed the relevance of institutions in creating new power relationships (the creation of deontic powers involves the collective acceptance of constitutive rules)[7].

Bush (1987) presented an approach addressing the importance of a society's values to its institutional framework and noted that an investigation on the process of institutional change and the nature of institutions is inherently normative. He claimed that: "All inquiry involves interpretation, and interpretation requires judgment. When the subject matter under investigation is the value system of society, interpretations and their attendant judgments must be made about the value system" (p. 1078).

This structure is made up of *ceremonial* and *instrumental* value systems. The ceremonial system correlates behaviors within the institution through unfair exercise of power by one class over another, based on privilege and status. This argument validates associations between behaviors, such as "it is consistent with the requirements of national security […] blacks are inherently inferior to whites" (Bush, 1987, p. 1083), generating acceptance from

[6] Hodgson (2004) referred to James (1893), Veblen (1898a, 1898b) and Dewey (1922) to introduce the concept of habit. He also underlined: "The works of Dewey (1922) and James (1893) remain two of the classic and best accounts of the nature of habit as understood here" (p. 652).

[7] Searle (2005) clarified that: "The essential role of human institutions and the purpose of having institutions is not to constrain people as such, but, rather, to create new sorts of power relationships. Human institutions are, above all, enabling, because they create power, but it is a special kind of power" (p. 10). He defined deontic power as "[…] the power that is marked by such terms as: rights, duties, obligations, authorizations, permissions, empowerments, requirements, and certifications" (p. 10), and constitutive rules as "[…] in the form of constitutive rules X *counts as* Y *in* C […]" (p. 9).

authority, claiming absolute values. In contrast, the instrumental value system correlates behavior using judgment patterns through which tools and skills implement proven knowledge by evidence in community problem-solving processes (Bush, 1987).

Therefore, the same behavior presented in different social contexts may not support the same kind of relationship, because the value system that connects them is not the same (Bush, 1987). The process by which the activity, action, or finding *A* leads to *B* highlights the institution's value structure[8]. Bush claimed that progress is constrained by ceremonialism, precisely because it inhibits the free inquiry necessary for instrumental evaluation.

Bush further explained that the processes of solving collective problems are dynamic, imply transformations in habits of thought and behavior, and arise from questions and technological change. He argued that technological innovation implies a change in agents' behavior that generates new challenges for society, starting with stimuli and possibilities to find solutions to problems, a process labelled *cumulative causation* in Veblen[9].

According to Bush (1987), institutional changes can be either progressive or regressive. Progressive changes occur when instrumental patterns of behavior shift ceremonial ones for a given knowledge fund, a process in which technological innovations break down ceremonial barriers.

2.2. Institutions: New Institutional Economics

In this subsection, we present the core concepts of NIE, mainly focusing on North's (1990) work[10]. In addition, we incorporate Acemoglu, Johnson, and Robinson's (2004) analysis that clarifies the connection between power relations and institutions[11].

North (1990) argued that: "Are institutions formal or informal? […] I am interested both […] Institutions may be created, as was the United States Constitution; or they may simply evolve over time, as does the common law" (p. 3). Regarding the scope of the term *institutions*, North (1990) noted that: "Institutional constraints include both what individuals are prohibited from doing and sometimes, under what conditions some individuals are allowed to undertake certain activities. […] they are the framework within which human interaction takes place" (p. 4).

North highlighted the relevance of informal institutions in the evolution of institutional frameworks[12]. The outcome of a change, through the creation or revision of formal institutions, depends to a large extent on the culture of the society in question[13]. Accordingly, Denzau and North (1994) stated that: "The cultural heritage provides a means of reducing the divergence in the mental models that people in a society have and also constitutes a means for the intergenerational transfer of unifying perceptions." (p. 8).

Vested values and conduct cannot be changed as rapidly as formal rules. Thus, informal institutions play a key role in relationships between agents and in predicting preferences and behaviors. North (1990) emphasized the importance of informal institutions, as well as the difficulty of accurately analyzing their influence on behavior[14].

North (1990) discussed the relevance of agents' subjective and imperfect information processing capacities, and how this subjectivity in understanding reality influences decisions. Denzau and North (1994) explained that: "The mental models are the internal representations that individual cognitive systems create to interpret the environment […]" (p. 4); and further stated that: "If different individuals have similar models they are able to better communicate and share their learning" (p. 4). North (1990) placed an emphasis on ideology, commenting that: "the subjective and incomplete processing of information plays a critical role in decision-making. It accounts for ideology, based on subjective perceptions of reality, playing a major part in human beings' choices" (p. 23).

Additionally, North (1990) argued that the institutional infrastructure, which guides relations between agents, is not restricted to institutions, but also incorporates organizations that represent the materialization of a set of skills and strategies designed to operate in an institutional context[15]. He clarified that the features of an institutional matrix's increasing returns, generating the lock-in condition, come from the dependency of organizations that emerge out of the institutional structure and the resulting networking externalities. Organizations built according to the incentives provided within formal and informal institutions become dependent on them for performance (see also North, 2005).

The network of incentives provided by institutions results in the development of organizations with particular skills and knowledge, and the performance of these impact the consumers' decision-making processes. The issue at stake is not just the feasibility of projects, but also the subjective mental models and idiosyncratic cognitive capacities involved. North (1990) noted that: "The way in which knowledge develops influences the perceptions people have about the world around them and hence the way in which they rationalize, explain, and justify that world, which in turn influences the costs of contracting." (p. 76).

To elucidate the point, we offer an example regarding the potential impact of state protection. The *ex-ante* analysis incorporates the asymmetry of power among the agents directly involved in the transaction, but unknown bargaining powers after signing the contract. Supposing that judges tend to rule in favor of consumers as a mechanism

[8] This type of questioning, in reference to the relationship between *A* and *B*, supports the distinction that critical realism makes between necessity and contingency (see Sayer, 2000). Tauheed (2013b) clarified that: "In practice, as one applies critical institutional analysis, the questions one must ask are those about the causal power of d-structure (s-structure mediated through agency), and its ability to (re)produce the phenomena under investigation" (p. 844).
[9] For more details on the process of cumulative causation, see Hodgson (2003) and Veblen (1898a, 1904).
[10] For more information on North's work, see Ménard and Shirley (2014).
[11] Greif and Mokyr (2016) claimed that: "in the 'institutions as power' school of […] (NIE) […] Acemoglu and Robinson […] are the best-known spokesmen" (p. 30).
[12] There are interesting discussions on informal institutions, e.g., Greif and Mokyr (2016), Alesina and Giuliano (2015).
[13] North (1990) noted that: "Culture provides a language-based conceptual framework for encoding and interpreting the information that the senses are presenting to the brain." (p. 37).
[14] North (1990) argued that: "it is much easier to describe and be precise about the formal rules that societies devise than to describe and be precise about the informal ways by which human beings have structured human interaction. But although they defy, for the most part, neat specification and it is extremely difficult to develop unambiguous tests of their significance, they are important" (p. 36).
[15] Examples of institutions are the Federal Constitution and the Resolutions of the National Monetary Council, while of organizations are banks, credit societies and credit cooperatives.

of *doing justice* since these are assumed to be the most vulnerable party within a relationship[16]. Formal rules could create greater legal certainty for operators (assuming that the case was simply an application of contract clauses). However, if the possibility of a different interpretation exists, the transaction's payoff changes[17]. Regardless of what is considered correct or fair in this case, the institutional outcome would be uncertain[18]. As North (1990) noted: "relative price changes alter the incentives of individuals in human interaction" (p. 84).

In the process of designing institutions and their changes, North (1990) considered opposing interests: "Why does a fundamental change in relative prices affect two societies differently? […] the margin affected will be those where the immediate issues require solution [sic] and the solution will be determined by the relative bargaining power of the participants […]" (p. 101).

In the same perspective of conflicting interests, Acemoglu et al. (2004) analyzed the selection process of economic institutions[19]. Although the efficiency of a proposal or set of institutions could be considered *vis-à-vis* others, the decisive factor tends to be political power (*political power*$_t$ => *economic institutions*$_t$). They stated that: "Whichever group has more political power is likely to secure the set of economic institutions that it prefers" (p. 3).

According to these authors, the distribution of political power is endogenous. In their analytical structure, there are two components of political power: *de jure* and *de facto*. *De jure* political power comes from political institutions (*political institutions*$_t$ => *de jure political power*$_t$), while *de facto* power derives from two sources, as "[a] group of individuals, even if they are not allocated power by political institutions, [...] may nonetheless possess political power" (Acemoglu et al., 2004, p. 5). These are 1) the ability of the group to coordinate the collective issue and 2) economic resources (*distribution of resources*$_t$ => *de facto political power*$_t$).

3. METHODOLOGY

In this study, we primarily use the OIE and the NIE schools of thought as the underlying conceptual framework. The analytical process considering both approaches implies alignment in terms of the relevance of institutions for social results, allowing for a widening understanding of the analyzed issue.

On the OIE, we use Tauheed's (2013a) work, which reconciles the concepts of the institution in Veblen (1909), Commons (1934), and Foster (1981). For the methodology of critical institutionalism applied, Tauheed referenced Margaret Archer (morphogenetic approach), Roy Bhaskar (critical-realist philosophy), Thorsten Veblen – John Commons – Fagg Foster (OIE), and Charles Peirce – John Dewey (pragmatism). Additionally, regarding the assessment of the values systems (ceremonial vs. instrumental) and institutional change, we draw on Bush (1987).

To address the NIE, we focus on Douglass North's (1990) work – "Institutions, institutional change and economic performance" – along with other authors, especially through Denzau and North (1994). We underscore the concept of *mental models* as a building block in the development of a governance proposal. Furthermore, to complement the institutional dynamics analysis, we refer to Acemoglu et al. (2004).

Based on the literature review, we carry out a qualitative analysis whose results are:

1. Firstly, an evaluation of the values correlating the propositions within the institution of analysis. To this end, we devise: 1) a scenario in which the agent reaches a bad result after making a decision; 2) hypotheses that potentially explain this bad result; and 3) a questioning process that aims to organize and streamline the analysis.
2. Secondly, from the examination of instrumental or ceremonial values' predominance within the institution of analysis, the foundation for the governance policy proposal aimed at fostering efficiency within the NFS.

4. ANALYSIS AND DIAGNOSIS

4.1. Diagnosis: Applied perspective

We use the previously established analytical tools to examine the value structure underlying the proposed behavior correlation. The objective is to identify whether the adequate knowledge fund is applied to understand the problem. This examination would allow for the proposal of a governance policy that stimulates technological innovation through a process of cumulative causation.

Firstly, we present a simple practical example to illustrate the nature of questioning underlying the proposed analysis. The two following statements describe a result/an action: 1) credit to small enterprises can raise their scale of operation, and 2) subsidized credit for small enterprises (with a lower interest rate than that which would be practiced under market conditions) is necessary. One plausible explanation for connecting these two statements could be that small businesses are unable to pay market interest rates.

In line with Bush's reasoning, the inability of small enterprises to pay market interest rates would be a reasonable and sufficient argument to support a ceremonially warranted behavioral pattern. However, for a more accurate evaluation of behavior

[16] "According to most of the 741 magistrates who participated in Pinheiro's (2001) research, the 'politicization' of judicial decisions, although a reality in Brazilian justice, occurs only occasionally. […] a fifth of them see such behavior as frequent. [...] high enough that the 'politicization' of judicial decisions can be considered an important factor to explain why in some cases different judges come to different decisions on very similar or even equal cases" (Pinheiro, 2003, p. 37, translated by the author). Pinheiro (2003) referred to court decisions in distinct types of causes, such as those relating to labor rights, consumer rights, credit markets, and commercial operations.

[17] Pinheiro (2003) explained that: "Contracts are often a way of allocating risks *ex-ante*, and the uncertainty about whether this allocation will be respected *ex-post* greatly reduces the utility of contracts." (p. 40, translated by the author). Pinheiro provides a good example of *ex-post* judgment that disagreed with contractual clauses set *ex-ante* through exchange rate leasing contracts when the real devalued in 1999.

[18] As North (1990) argued: "The choices made reflect the entrepreneurs' subjective modelling of the environment. Therefore, the degree to which outcomes are consistent with intentions will reflect the degree to which the entrepreneur's models are true models. Because the models reflect ideas, ideologies, and beliefs that are, at best, only partially refined and improved by information feedback on the actual consequences of the enacted policies, the consequences of specific policies are not only uncertain but to a substantial degree unpredictable. Even the most casual inspection of political and economic choices, both throughout history and today, makes clear the wide gap between intentions and outcomes." (p. 104).

[19] See also North (2005). On financial regulation processes, see Calomiris (2009), and Rajan and Rancharam (2016).

causation, we turn to microfinance literature and the records of hands-on experiences. For this, we refer to the Bolivian microcredit experience and the case of Banco Compartamos in Mexico, both undermine the argument that small enterprises are unable to pay market interest rates. Consequently, based on that consideration, we question whether it would be possible to affirm that the connection between the above statements, correlating the provision of subsidized credit to small enterprises and their inability to pay market interest rates, is supported by instrumental values.

Now we turn our focus to the institution of analysis defined for this study. The financial services consumer (who is either already integrated into the formal market or is still outside) has received increased attention over recent years. In Brazil, this emphasis is evidenced by the National Strategy of Financial Education, which was introduced as state policy on a permanent basis in 2010 (ENEF, 2017). Thus, the next step in the analysis is to question what leads consumers to make decisions that do not produce results compatible with their life plans.

For example, we can assume that no one would want to be in default with creditors. In other words, in theory, no agent would intentionally act to enter their name into a record of debtors, for the specific purpose of *tarnishing* their creditworthiness. This outcome suggests incompatibility with the life plans of the great majority of consumers. As such, what would lead consumers into this situation of 1) contracted credit and 2) default. What argument correlates these two behaviors? Possible responsible factors include 1) inadequate technical ability, 2) external shock, or 3) having moral values incompatible with those defined by society, as would be the case if the consumer did not care about their reputation[20].

The second factor, an external shock, may result from a completely unexpected event, of which the possibility of occurrence is often not considered, such as an earthquake in Brazil, or the absence of an adequate insurance product. The latter can potentially be explained by four aspects: negligence, ignorance, lack of service availability, and impossibility to pay for insurance. Negligence can be associated with the moral values explanation (factor 3) and ignorance with inadequacy in technical ability (factor 1). The lack of service availability or enough income is labeled as *extreme cases* in this study, as specific approaches are needed, such as insurance for situations not currently viable for insurers or for extremely low-income agents.

Thus, our questioning suggests focusing on the factors *inadequacy of technical skill* and *moral values*. Other hypotheses may be considered for evaluating decisions that seemingly produce undesired effects for the consumer, such as purchasing a credit product when their actual need is to save, or signing a contract with unfavorable conditions because the agent either did not read or did not understand the clauses. These behaviors can be categorized as either incompatible moral values or inadequacy of technical skill. I should emphasize that moral values, for the analysis developed here, are related to behaviors that are in disagreement with those that are socially expected, such as justifying not reading the contract because of lack of time or any reason arising from the consumer's free will, rather than ignorance.

While consumer dissatisfaction can also stem from opportunistic operator behaviors, these irregularities fall outside the scope of this paper and involve a supervisory authority's action. Therefore, we must emphasize that the focus of this study entails agents' appropriate technical skills and moral values, factors that lead to the idea of financial services consumer autonomy. However, the objective of proposing a governance policy aims primarily at enhancing technical skills.

For this analysis, we use the concept of autonomy that Lalande (1999), as cited in Zatti (2007), defined as "the condition of a person or a cultural collectivity, which itself determines the law to which they submit" (p. 12, translated by the author). Zatti elaborated on this definition of autonomy:

"[…] the power to determine the own law and also the power or ability to perform. The first aspect is linked to freedom and power to conceive, fantasize, imagine, decide, and the second to the power or ability to do. For autonomy to exist both aspects must be present, and autonomous thinking must also be autonomous doing. [...] Situations such as ignorance, scarcity of material resources, bad moral character, etc., impose determinations that limit or nullify autonomy, being characterized, therefore, as heteronomy" (p. 12, translated by the author).

We underscore that, for deliberate decisions to be taken, with due responsibility, they need to be underpinned by sufficient knowledge and technical skills, as well as individual values[21]. Therefore, in order to make our reasoning clear, two propositions follow – the *institution of analysis*:

Proposition 1: Making deliberate decisions and acting according to life plans, assuming the responsibilities that arise therefrom.

Proposition 2: Developing financial services consumer autonomy.

Based on the previously presented theoretical background, we should question:

What value system predominates in supporting the correlation between these two behaviors?

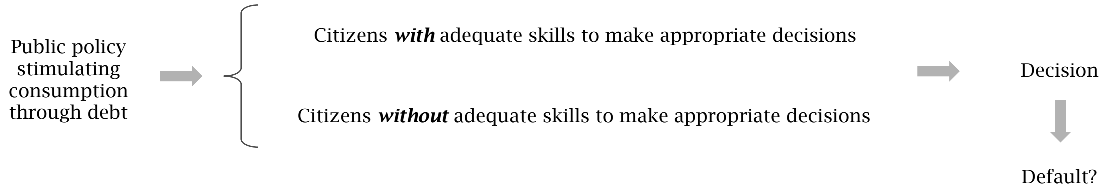
To reach a satisfactory analysis, firstly, we argue that both behaviors express a need for an adequate level of knowledge and an ability to apply it, allowing the results to generate responsibilities for the consumer. For example, if the government implements an incisive policy of stimulating consumption through the assumption of debt, involving citizens that may not have the skills needed to make appropriate decisions (e.g., low-income agents), high default rates could be reported. Accordingly, we ask the question:

Whose responsibility are the overdue balances?

[20] This does not refer to intentional negativation, but to an attitude of relative indifference/negligence. For example, the agent may be aware that there is a high chance of default and still choose to take on a debt to satisfy a desire for consumption.

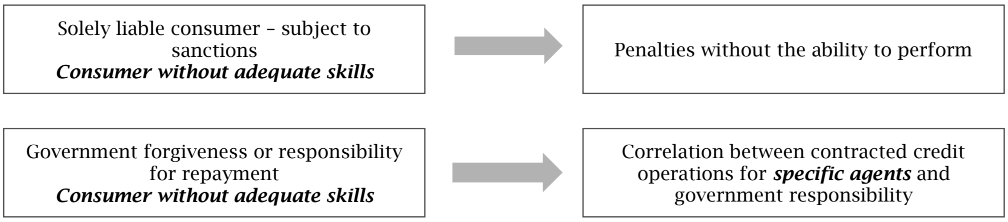
[21] According to Rawls (1971), "a legal system should recognize impossibility of performance as a defense, or at least as a mitigating circumstance. In enforcing rules, a legal system cannot regard the inability to perform as irrelevant. It would be an intolerable burden on liberty if the liability to penalties was not normally limited to actions within our power to do or not to do" (p. 237).

Figure 3. Decision making and agents' responsibility



If the consumer without adequate ability to make deliberate decisions is solely liable and subject to sanctions, they will be penalized without having the necessary skills to perform the activity. However, if the government forgives the debt or takes responsibility for repayment, this can strengthen the correlation between contracted credit operations for low-income agents and government responsibility.

Figure 4. Correlated behaviors



By stipulating or reinforcing that institution, compatible habits of thought and behavior can be promoted. From another perspective, if existing mental models interpreted reality in that way, they will be reinforced by the positive feedback of the social context. If no such prior understanding occurred, then the new feedback may change the mental models of low-income consumers and lead them to internalize the new institution.

The proposition of correlated behaviors implies that autonomous consumers can and should take responsibility for their decisions. This conception creates new problems and perspectives for the consumer, with new possible solutions, it is the *cumulative causation* process. Developing appropriate technical skills enhances the possibilities for decision-making quality and accountability, which tends to impact other areas of the consumer's life. Making decisions and taking responsibility creates habits of thought and provides feedback on existing mental models, thereby reinforcing or changing conceptions. Additionally, the increasing ability to make "good" decisions and the self-perception of being reliable hold the potential to promote more stability in the relationships, by strengthening the *agency* component. Underpinning this result, we highlight the possibility of reducing agents' bargaining power asymmetry.

The financial literacy of the Brazilian consumer

To finalize the diagnostic subsection, we map the technical skill level of the financial services consumer in Brazil and label it as financial literacy: "a combination of the awareness, knowledge, skills, attitudes and behaviours necessary to make sound financial decisions and ultimately achieve individual financial well-being" (OECD, 2020a, p. 43).

It is not a simple task to identify the financial literacy level of a society. For example, does the isolated fact that a household does not save reflect a lack of specific technical knowledge or a choice resulting from other factors within mental models? Collins, Morduch, Rutherford, and Ruthven's (2009) research on low-income families in Bangladesh, India, and South Africa, using the financial diary method, and highlight the financial dynamics of these families. Contrary to what one might expect, they did not just find the inflow of resources from work and immediate total spending, throughout the year, there are also transactions reflecting savings and credit behaviors. Therefore, we cannot assume in advance that the absence of saving behavior is a result of either a lack of knowledge or income.

The CBB report (2017) on consumer behavior entitled "Competencies in financial education: Description of survey results of the International Financial Education Network adapted and applied in Brazil"[22] explained: "A high percentage (38%) of respondents said they did not make any comparison before hiring a financial service, indicating an unhealthy consumer behavior regarding their financial decisions." (p. 48, translated by the author). The same report also argued that: "The Brazilian population has a high degree of confidence, greater than the knowledge – in fact – about finance [...]. This is interesting since high confidence in financial knowledge could influence the financial decision-making without basic care, such as comparing financial product rates." (p. 23, translated by the author).

Santos, da-Silva, and Gonzalez (2018), by studying the Brazilian market, noted that a low level of financial literacy increases the likelihood of using informal loans. Further, they found "a greater effect on the tendency of agents with low financial literacy to use informal lending sources than agents with a bad credit history" (p. 57, translated by the author). They also indicated that the results are in line with those obtained by the OECD, INFE, and Russia Trust Fund (2013), in that lower levels of financial literacy are associated with less awareness of alternatives, with agents being more susceptible to errors, suggesting that they tend to be more dependent on friends and relatives to access loans.

[22] Original title: *"Competências em Educação Financeira: Descrição de resultados da pesquisa da Rede Internacional de Educação Financeira adaptada e aplicada no Brasil"*.

A 2017 study conducted by the OECD, entitled "PISA 2015 results: Students' financial literacy", highlighted that financial literacy is now recognized globally as an essential life skill. It explored not only the degree of students' accumulated knowledge but also their ability to apply this knowledge in real-life situations. Different indicators illustrate the Brazilian performance *vis-à-vis* other participants. In the table entitled "Change between 2012 and 2015 in mean financial literacy performance" (15 countries, including Poland, China, Peru, and Russia)[23], despite the fact that the change in mean financial literacy for Brazil is not available (no data for 2012), it is possible to determine that Brazil received the worst score in 2015 (p. 177). In another table, "Mean performance in financial literacy, by students' socio-economic status" (p. 196), Brazil reached the second-lowest place for the bottom quartile (ahead of Peru) and was placed last in the second, third, and top quartiles[24].

Therefore, from the analysis undertaken in this subsection, we can argue that the indicated institutional proposal, labeled here as the *institution of analysis*, correlates behaviors according to the predominance of instrumental values[25].

4.2. Policy proposition[26]

Here, we analyze the referral proposal for the diagnosis reached in the previous subsection to identify ways of developing financial services consumer autonomy in the Brazilian market from an institutional perspective.

The focus of this study is on developing technical skills (i.e., financial literacy) that should impact other consumer's life areas. The OECD, INFE, and Russia Trust Fund report (2013) declared that: "Financial education is the *process* [emphasis added] by which individuals improve their understanding of financial products and concepts; […] develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, […] and to take other effective actions to improve their financial well-being and protection (OECD, 2005)." (p. 23).

We highlight the idea of a *process* in the concept of financial education. It is consistently *transverse* in intra- and inter-disciplinary approaches. We address the complexity of financial education in the broadest possible sense, without placing restrictions on instruments or literature. While adding the term *financial* to education indicates a relation to the financial world, this does not mean that the process of improving knowledge and consumer decisions can only take place through specific actions, related to the subject.

Willis (2008) questioned the effectiveness of financial education, contrasting education with alternative initiatives. She underscored that one explanation for the difficulty of empirically proving the effectiveness of this educational process could be its inadequacy. Then, asked: "But is it plausible that financial literacy programs would work?" (p. 8). Among the issues highlighted by Willis, innovation dynamics in the financial services market is significant for this analysis. She noted that even regulators can find it difficult to track changes, and when regulations enter into play after the due process of review and revision, they still refer to past markets.

However, we question whether in this case the fragility actually lies in the education process that links the educator with the consumer or the operator with the regulator. We again focus on the institutional environment and ask whether the practices and focuses are sufficient[27]. Within the scope of the consumer, we question how the process of approximation and understanding among regulators, operators, and consumers has been conducted (von Borowski Dodl, 2020).

In particular, we emphasize what the G20, OECD, and INFE (OECD, 2018) report exposed on the relevance of digital technologies and their impact on the economy in general, and the financial services sector specifically, in providing important opportunities to consumers already in the formal market and to those that have traditionally been excluded (through a variety of services and operators, such as virtual currencies and Fintechs). The report declared that: "These significant changes increase the need for *effective financial education* [emphasis added], financial consumer protection and financial inclusion policies that adapt rapidly to this changing environment" (p. 8).

In this sense, the effective comprehension and absorption of knowledge demand an adequate approach regarding the target audience. For example, if we realize that there are adults who need to operate financial transactions, we place them not within pedagogy, but andragogy[28], a process of learning in which people utilize their own experiences, identification, and understanding of the usefulness of knowledge.

Rocha (2012) noted that: "For Knowles, 1970, [the] father of andragogical practice in the academic community, without the possibility of autonomy adult learning will be restricted to [the] 'banking learning'[…], where the student is a repository of information, a passive listener." (p. 1, translated by the author).

Knowledge delivery is a stage of the learning process, but its internalization and maturation must also be considered for autonomy over consumption decisions. Therefore, an efficient financial education strategy must provide appropriate training for each audience, as well as a consistent and effective institutional framework, in a way that the main learning environment (i.e., correcting wrong practices and reinforcing correct decisions) be the agents' daily life. In other words, we do not focus on the availability of the information itself, but rather

[23] China's data refers to the four provinces participating in PISA: Beijing, Shanghai, Jiangsu and Guargdong.

[24] In the OECD's (2020a) report "PISA 2018 results: Are students smart about money?", Table IV.2.1 "Comparing countries'/economies' mean performance in financial literacy", Brazil is ranked 17th out of 20 countries/economies.

[25] On the financial education outlook in Brazil, see Amorim (2017), Central Bank of Brazil (2016), Central Bank of Brazil (2017), von Borowski Dodl (2020), OECD (2017), and OECD (2020a, 2020b).

[26] The approach to the opportunity and depth of the financial services digitalization's impact on the NFS and society as a whole results from José Renato Barros's comments and suggestions, a BCB server, who pioneered the development and use of technology in information businesses in Brazil.

[27] More on governance processes, see Grove, Clouse, and Schaffner (2018), Kim (2020), Moro Visconti (2019), and Yeung (2019).

[28] Martins (2013) noted that: "Andragogy corresponds to the science that studies best practices to guide adults to learn. One must consider that experience is the richest source for adult learning. These, in turn, are motivated to learn as they experience needs and interests that learning will satisfy in their lives." (p. 145, translated by the author). See also Teixeira (2005).

on the modes of communication, proximity, and other variables that make investments in financial education more effective and comprehensive.

Additionally, we emphasize that the argument on appropriate language, communication, and proximity among stakeholders not only relates to low-income individuals or those with reduced access to the formal knowledge market but also to investors with a greater degree of expertise. Miranda (2017) analyzed transaction costs that derive from excessive technicality and complexity within Brazilian capital markets.

The G20, OECD, and INFE (OECD, 2018, p. 12, also see OECD, 2020b) presented some relevant considerations for the promotion of agents' digital financial literacy through financial education strategies, such as:

"Support effective delivery of financial education through digital and traditional means and address the needs of target audiences through tailored approaches:

a) exploit the advantages of digital delivery: easier access to financial education, tailored to the audience, and [sic] which can better support money management skills while reinforcing core competencies;

b) design an appropriate delivery mix depending on the audience, taking into account the relevance of traditional delivery for priority groups and vulnerable populations".

Thus, to develop more efficient policies that promote financial literacy through tailored educational processes, designed for each specific audience with appropriate language, and institutions that are compatible with these objectives, we identify effective consumer participation in the governance structure underpinning the regulation process within the NFS as a necessary component (see von Borowski Dodl, 2020).

International institutional perspective

Within this subsection, we present a view exempt from the national context, on coordination and supervision over regulatory issues (mechanism related to the governance process). To this end, we use the OECD's (2012) report "Recommendation of the Council on Regulatory Policy and Governance" (RCRPG).

Through the RCRPG, the Regulatory Policy Committee published twelve recommendations. The second is of particular relevance to this study. It advocates that members:

"Adhere to principles of open government, including transparency and participation in the regulatory process to ensure that regulation serves the public interest and is informed by the legitimate needs of those interested in and affected by regulation. […] Governments should ensure that regulations are comprehensible and clear and that parties can easily understand their rights and obligations." (p. 4).

Transparency, clarity, participation, consideration of legitimate needs of those involved in regulation, and high-quality communication, all require the engagement of different stakeholders with knowledge on the mental models of specific groups. In reference to Principle 2, the RCRPG (OECD, 2012) declared that:

"Governments should co-operate with stakeholders on reviewing existing and developing new regulations by: Actively engaging all relevant stakeholders during the regulation-making process and designing consultation processes to maximize the quality of the information received and its effectiveness. Governments should have a policy that requires regulatory texts to be drafted using plain language. They should also provide clear guidance on compliance with regulations, making sure that affected parties understand their rights and obligations." (p. 8).

We refer to the potential exercise of *de facto* political power, based on the understanding that participation in institution building implies the ability to mobilize and coordinate efforts to resolve issues involving collective interests. Similarly, care should be given to the language used in communication, as the message needs to reach the target audience effectively. Thus, it is not enough to solely publicize the document, as it is also necessary to understand the mental models (having proximity – identification) of those who are expected to be compliant.

Consequently, the appropriate symbols, vocabulary, expressions, approaches, and other variables that make up good communication techniques should be considered and used adequately. In addition, idiosyncratic cognitive capacities should lead policymakers to structure public messages based on simple arguments. Therefore, we highlight effective *participation* and *communication* as fundamental for building a regulatory framework.

The governance structure of the national regulatory component

The next step requires clarifying the approach to governance in this study. According to the *Código das Melhores Práticas de Governança Corporativa* (Code of Best Practices of Corporate Governance) of the Instituto Brasileiro de Governança Corporativa (IBGC) (2015): "Corporate governance is the system by which companies and other organizations are run, monitored and encouraged, involving relationships between partners, the board of directors, the board of executive officers, the supervisory and control bodies and other stakeholders." (p. 20, translated by the author).

The most *abstract* aspect in this analysis involves regulatory issues in the broadest sense. However, regarding specifically the strategic management of the NFS regulation, we focus on its governance structure. For greater efficiency in the relationships, we emphasize the relevance of reducing asymmetries across agents' bargaining powers. This involves enhancing consumers' cognitive abilities and mental models that improve self-confidence based on effective skills (thereby strengthening the *agency* component on solid foundations) and promoting their active participation in institution building.

Denzau and North (1994) explained that: "In fact, no two individuals have exactly the same experiences and accordingly each individual has to some degree unique perceptions of the world. Their mental models would tend to diverge for this reason *if there were no ongoing communication with other individuals with a similar cultural background* [emphasis added]." (p. 8).

As discussed earlier, participation and communication are important factors in the design of an appropriate regulatory framework. Specifically, regarding consumer participation in the governance structure that underpins the regulation process within the NFS, we highlight two aspects. Referring to the use of financial services, we note that the services offered are inserted into the context in which mandatory supervision and regulation are under public power monopoly, represented in this study by the CMN-BCB[29]. There is no substitute for regulators' provided service. From this perspective, the consumer represents the citizen, with interests that must be protected by the state[30].

The consumers of financial services submit themselves to NFS institutions compulsorily[31], and in doing so, those institutions influence agents' habits and preferences. Their mental models receive information from the interactions between agents and the institutional matrix. To develop consumer autonomy, therefore, it seems reasonable that they are effectively inserted in the process of institutional construction.

However, for consumers' participation in this process to elevate from offering suggestions and produce effective contributions, it is necessary that their propositions not only be considered but that also refer to the exercise of political power. Precisely, that their participation becomes institutionalized and enable *de jure* political power, resulting in their representation within the NFS's strategic body.

Analogous to a market operator, whose strategic body is personified by the board of directors, the NFS is oriented by the National Monetary Council. It is currently composed of the Minister of Economy (who also acts as the chairperson), the Ministry of Economy's Special Secretary of Finance, and the Governor of the BCB[32]. The CMN's composition has changed since its inception in 1964. The current structure was established in 2019, following government-conducted changes driven by the 2018 presidential election. From 1994 to 2018, the CMN was formed by the Minister of Finance, the Minister of Planning, Budget, and Management, and the Governor of the BCB.

The board of directors "is the collegiate body responsible for the decision-making process of an organization regarding its strategic direction. It plays the role of guardian of the principles, values, corporate purpose and governance system of the organization, being its main component" (IBGC, 2015, p. 39, translated by the author)[33]. The IBGC (2015) proclaimed that: "The board of directors should ensure that each stakeholder receives an appropriate benefit commensurate with its link with the organization and the risk to which it is exposed." (p. 40, translated by the author).

The rationale within the NFS would be that a CMN member with knowledge of the consumer's reality, their weaknesses, mental models, and levels of cognitive ability would add expertise to the process of transforming their behavior – improving their decision-making quality. Technically, we associate the development of consumer autonomy, through a change in the NFS governance structure, with a progressive institutional change.

5. CONCLUSION

In this study, we work with the conception that habits of thought and subjective mental models are not only used in identical moments as they were developed. We also highlight the existing incentives in social contexts and the possible restrictions that may emerge when implementing new laws and emphasize that publicizing a rule does not guarantee its conversion into an institution.

We mainly use the OIE and the NIE schools of thought as theoretical reference. This perspective allows for broadening the extent and depth of understanding while focusing on key aspects. From the literature review, our qualitative analysis aims at, firstly, evaluating the normative content of propositions within the *institution of analysis* and, secondly, providing a basis for a governance policy proposition. We begin by conducting a questioning on what drives consumers to make financial decisions that generate "bad" results – incompatible with their life plans.

We present an example concerning credit operations; however, the core insight stems from the reasoning developed through the analysis, not from the product specificity. The next step considers the propositions within the institution of analysis and the approach to the accountability aspect. On the latter, we focus on the commitment in which one of the agents does not have the appropriate skills to make deliberate decisions. The lack of adequate literacy (and consequent autonomy) can promote, for example, either unfair penalties or opportunistic behaviors.

Proceeding to the analysis, we address the financial literacy of the Brazilian consumer and the policy proposition, considering contributions from the international perspective. Following, we focus on the governance structure of the national regulatory component. We emphasize the importance of effective communication and formal consumer participation in the structuring of institutions, underscoring the difference between the exercise of *de facto* and *de jure* political power.

A system in which stakeholders engagement happens within a more level playing field, and is supported by steady and appropriate communication approaches, tends to consistently foster the *agency* component. In this regard, we highlight the opportunity for more effective (and legitimate) processes of morphogenesis or morphostasis.

Finally, the conjunction of the theoretical apparatus and the empirical approach outlined in

[29] There are other entities responsible for the NFS's supervision/regulation activities. For this study, however, we focus on the CMN/BCB's responsibilities. For more details on the organizational structure of the NFS, see Central Bank of Brazil (https://www.bcb.gov.br/estabilidadefinanceira/sfn).

[30] Article 5 Item. XXXII of the Constitution of the Federative Republic of Brazil dictates that: "the State shall promote, in accordance with the law, consumer protection" (Presidência da República, 1988, translated by the author).

[31] Financial services providers not included in the NFS can be considered substitutes from certain perspectives, such as credit operations granted by Civil Society Organizations of Public Interest (OSCIPs). However, the complexity of services combined with a supervised environment is unique to the NFS.

[32] Central Bank of Brazil (https://www.bcb.gov.br/en/about/cmnen).

[33] Johnson, Scholes, and Whittington (2011) specified that: "The first statutory responsibility of a board is to ensure that an organization meets the wishes and purposes of key stakeholders. However, the identity of these stakeholders varies. [...] Such distinctions lead to differences in how companies operate, how an organization's purposes are planned and how strategies are developed, and the role and composition of boards." (p. 118, translated by the author).

this paper can potentially contribute to building more efficient and consistent solutions to existing governance problems, hence improving the effectiveness of policy initiatives. Furthermore, although the exclusive focus on the Brazilian financial market represents a limitation regarding the breadth of its results, the diagnosis process carried out in this study can be easily reproduced.

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