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STATE-OWNED ENTERPRISES' PERFORMANCE: THE ROLES OF PUBLIC CORPORATE GOVERNANCE CODES AND POLITICAL IDEOLOGY

Tese apresentada à Escola Brasileira de Administração Pública e de Empresas para obtenção do título de Doutor

LEONARDO HENRIQUE LIMA DE PILLA

Rio de Janeiro - 2024

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ESTE É UM TRABALHO ORIGINAL ONDE FOI VERIFICADA A NÃO EXISTÊNCIA DE PLÁGIO E DE UTILIZAÇÃO DE INTELIGÊNCIA ARTIFICIAL, NÃO EXPLICITADA, NO CORPO DO TRABALHO ATESTADO PELO ALUNO(A) E ORIENTADOR(A). ESTE DOCUMENTO NÃO CONFERE TÍTULO. PARA TAL DEVERÃO SER CUMPRIDOS OS REQUISITOS DO PROGRAMA DE PÓS-GRADUAÇÃO, INCLUINDO A DEFESA PÚBLICA DO TRABALHO FINAL

ABSTRACT

This dissertation presents three independent articles discussing determinants of the financial and social performance of state-owned enterprises (SOEs), particularly focusing on the roles of public corporate governance codes (PCGC) and of incumbents' political ideology. The first article sheds light on whether PCGCs can induce SOEs to improve financial performance. The study examines the effects of the 2016 Brazilian Law of SOEs (BLS), which is a comprehensive and mandatory PCGC enforceable to SOEs in all government levels (national and subnational). The empirical examination of a 2010-2023 panel of Brazilian listed firms, including 28 SOEs controlled by national and subnational governments, shows that the BLS increased SOEs' financial performance as measured by return on assets. The second article discusses how incumbents' political ideology shapes SOEs' financial performance. The analysis of a 2019–2022 panel of 317 SOEs controlled by 27 subnational governments in Brazil shows that the more right-leaning the incumbent, the greater the SOEs' financial performance. However, the association of incumbents' ideologies with SOEs' financial performance is weaker when right-leaning incumbents' parties predominantly display non-policy behaviors (e.g., by prioritizing electoral outcomes or office occupation). Lastly, the third article illuminates how state-ownership shapes corporate social performance (CSP). By examining a 12-year panel of 150 Brazilian listed firms, including 41 SOEs, the study empirically demonstrates that state ownership is positively associated with the social dimension of corporate social performance (CSP), but only when the state is the majority shareholder, and thus able to strongly influence SOEs' goals. Moreover, the more right-leaning is the political ideology of the government, the weaker becomes the moderating effect of majority state ownership. Collectively, the three articles contribute to the literature by providing a multifaceted understanding of important institutional and political factors that shape SOEs' performance, both regarding its financial and social dimensions. Particularly, the first article corroborates the strand of research showing that PCGCs can mitigate typical SOEs' agency conflicts, illustrating how the institutional context matter for SOEs' performance. The second and third articles expand research about the role of political contingencies, such as incumbents' ideology—a commonly overlooked gap in current research—, on influencing SOEs' financial and social performance.

Keywords: State-owned enterprises; performance; political ideology; public corporate governance codes.

RESUMO

Esta tese apresenta três artigos independentes que discutem determinantes do desempenho financeiro e social das empresas estatais (SOEs), concentrando-se particularmente nos papéis dos códigos de governança corporativa pública (PCGC) e da ideologia política dos incumbentes. O primeiro artigo investiga se os PCGC podem induzir as SOEs a melhorar o desempenho financeiro. Examinam-se os efeitos da Lei das Estatais no Brasil (BLS), de 2016, que é um PCGC abrangente e obrigatório, aplicável às SOEs em todos os níveis de governo (nacional e subnacional). O exame empírico de um painel de empresas brasileiras listadas entre 2010 e 2023, incluindo 28 SOEs controladas por governos nacionais e subnacionais, mostra que o BLS aumentou o desempenho financeiro das SOEs, medido pelo retorno sobre os ativos. O segundo artigo discute como a ideologia política dos incumbentes influencia o desempenho financeiro das SOEs. A análise de um painel de 2019-2022 de 317 SOEs controladas por 27 governos subnacionais no Brasil mostra que quanto mais à direita no espectro ideológico for o incumbente, maior será o desempenho financeiro. No entanto, a associação da ideologia do incumbente com o desempenho financeiro das SOEs é mais fraca quando os partidos dos incumbentes apresentam predominantemente comportamentos não centrados em plataformas programáticas (por exemplo, dando prioridade aos resultados eleitorais ou à ocupação de cargos). Por último, o terceiro artigo ilumina como a propriedade estatal molda o desempenho social corporativo (CSP). Ao examinar um painel de 150 empresas brasileiras listadas durante 12 anos, incluindo 41 SOEs, o estudo demonstra empiricamente que a propriedade estatal está positivamente associada à dimensão social do CSP, mas apenas quando o estado é o acionista majoritário, e, portanto, capaz de influenciar fortemente os objetivos das SOEs. Além disso, quanto mais à direita for a ideologia política do incumbente, mais fraco se torna o efeito moderador da propriedade estatal majoritária. Coletivamente, os três artigos contribuem para a literatura ao fornecer uma compreensão multifacetada de importantes fatores institucionais e políticos que influenciam o desempenho das SOEs, tanto no que diz respeito à sua dimensão financeira como social. Em particular, o primeiro artigo mostra que os PCGC podem mitigar os conflitos de agência típicos das SOEs, ilustrando como o contexto institucional é importante para seu desempenho. O segundo e o terceiro ampliam a investigação sobre o papel das contingências políticas, como a ideologia dos incumbentes—uma lacuna frequentemente não abordada na literatura—, no desempenho financeiro e social das SOEs.

Palavras-chave: Empresas estatais; desempenho; ideologia política; códigos de governança corporativa pública.

TABLE OF CONTENTS

GENERAL INTRODUCTION

Despite the occurrence of different waves of privatization and liberalization reforms in the last decades, state-owned enterprises (SOEs) continue to be important economic and social providers in both developed and emerging economies (Bruton et al., 2015; Grossi et al., 2015; OECD, 2017). Their presence is even spreading in several countries, especially in local governments (Aars & Ringkjøb, 2011; Andrews et al., 2020; Rackwitz & Raffer, 2024). SOEs have been increasingly combining different levels of state and private ownership and control (Andrews et al., 2020; Bruton et al., 2015; Grossi et al., 2015), as well as a diverse set of financial objectives and public interest goals. In this context, despite of important institutional reforms in SOEs landscape, the enduring tensions between SOEs' efficiency and political control (Aharoni, 1981; Ramamurti, 1987; Seidman, 1954) continue to be important topics discussed in both the public administration (Aars & Ringkjøb, 2011; Bernier et al., 2020; Vining et al., 2021) and management fields (Aguilera et al., 2021; Musacchio & Lazzarini, 2014).

A robust body of literature on SOEs highlights the existence of long-standing and typical SOEs' governance challenges, such as: principal-agent misalignment that implies deficient monitoring (Boardman & Vining, 1989; La Porta & López-de-Silanes, 1999); not clearly defined social and financial goals (Bai & Xu, 2005; Ramamurti, 1987); diversion of SOEs` goals by politicians for their own electoral or economic benefit (Shleifer, 1998; Shleifer & Vishny, 1994); soft budget constraints (Kornai, 1986; Lin & Tan, 1999); and complex public accountability (Aharoni, 1981; Seidman, 1954). In turn, a more recent strand of research emphasizes the role played by institutional factors and political contingencies on shaping the setting of goals pursued by SOEs, as well as the "willingness and ability" of governments to intervene in their management, which ultimately may affect SOEs' performance on both the social and financial dimensions (Aguilera et al., 2021, p. 2; Cuervo-Cazurra et al., 2014; Lazzarini & Musacchio, 2018; Vining et al., 2021).

In this context, this dissertation, which is composed of three independent articles, aims to expand existing scholarship regarding institutional and political factors that may shape SOEs' performance. We first focus on the effects of public corporate governance codes (PCGC) on SOEs' financial performance (Article 1). Then, we examine the role of the political ideology of incumbents on SOEs financial (Article 2) and social (Article 3) performance.

Article 1 observes that national and subnational governments both in developed and emerging countries have increasingly issued PCGCs that constitute or complement the legal and regulatory framework under which SOEs operate (OECD, 2021). These codes prescribe rules or

standards for the supervision and management of SOEs (Papenfuß & Wagner-Krechlok, 2023) and aim to overcome SOEs' governance challenges, whereas concurrently addressing SOEs' needs of democratic legitimacy and political control. Research have examined the diffusion, implementation, and quality of PCGCs worldwide (Bernier et al., 2020; Cuomo et al., 2016; OECD, 2020, 2023, 2024; Papenfuß & Wagner-Krechlok, 2023; World Bank, 2020). However, scarce empirical attention has been devoted to understanding their effects on SOEs` financial performance. This is concerning because SOEs are established with the purpose of being as financially sustainable as possible in the provision of goods and services, or in the pursuit of public interests (Andrews et al., 2020; Rackwitz & Raffer, 2024). To address this gap, the article investigates the effects of the 2016 Brazilian Law of SOEs (BLS), which is a comprehensive and mandatory PCGC enforceable to SOEs in all government levels (national, state and municipal), and shows that the BLS caused increases in SOEs' financial performance measured as return on assets.

Article 2 observes that a continuing debate revolves in the literature around whether the political ideology of incumbents is linked to the creation of SOEs (Alonso et al., 2022; Andrews et al., 2020; Tavares & Camões, 2010). However, research has only started to examine the connection between incumbents' political ideology and SOEs' financial performance (Aguilera et al., 2021). This is concerning because SOEs tend to operate beyond political cycles. Successive governments, with different executive branch compositions, tend to exert distinct pressures on SOEs' financial performance over time, which may vary in terms of the strength and objectives according to their political ideologies. To address this gap, Article 2 hypothesizes and empirically demonstrates that the more right leaning the incumbent, the greater the SOEs' financial performance. However, the association of incumbents' ideologies with SOEs' financial performance is weaker when incumbents' political parties display non-policy behaviors (e.g., by prioritizing electoral outcomes or office occupation). A 2019–2022 panel of 317 SOEs controlled by 27 subnational governments in Brazil was analyzed.

Lastly, Article 3 observes that, although the effects of state ownership on firms' outcomes depend on how governments influence the goals of SOEs (Aguilera et al., 2021; Lazzarini & Musacchio, 2018), scant scholarly attention has been devoted to understanding what circumstances shape governmental influence on SOEs' corporate social performance (CSP) (Faller & zu Knyphausen-Aufseß, 2018). The study contends that, compared to non-SOEs, SOEs face additional institutional and legitimacy pressures that lead them to act in socially responsible ways, resulting in higher social and environmental CSP. However, these pressures are moderated by two other factors that determine the strength of governmental influence: whether the state has

a majority shareholding and the incumbent government's political ideology. A 12-year panel of 150 Brazilian listed firms, including 41 SOEs, is analyzed and demonstrates that state ownership is positively associated with the social dimension of CSP but only when the state is the majority shareholder, and thus able to strongly influence SOEs' goals. Moreover, the more right-leaning the government, the weaker becomes the moderating effect of majority state ownership. This is because political ideology determines how governments influence the tradeoffs between SOEs' economic and social goals.

Together, the three articles make several contributions to the literature. From an agency theory perspective, Article 1 corroborates the idea that PCGCs can help SOEs to overcome typical agency conflicts (Dixit, 2002), whereas concurrently providing mechanisms for democratic legitimacy and processes of political control and public administration oversight (Papenfuß & Wagner-Krechlok, 2023, p. 699). By a neo-institutional prism, we expand the scholarly discourse on the role of a mandatory PCGC, understood as a formal and coercive institutional pressure, in inducing improvements on SOEs' financial performance. Articles 2 and 3 findings further extant scholarship, which has neglected the effects of incumbents' political ideology on SOEs' financial and social performance, despite examining how political ideology is associated with public administration choices (e.g., contracting out, privatization, and corporatization).

Conflicts of Interest Statement

The author declares having no conflicts of interest. The author currently works for the Brazilian Federal Court of Accounts (*Tribunal de Contas da União*, TCU), contributing to an organizational unit which audit specific Federal SOEs in Brazil. It is important to note that the research and findings presented in the articles remain entirely independent of the author's affiliation with TCU. The databases used for the research comprises only secondary public information, or those provided in a Licensed Bloomberg Terminal, and has not been influenced by any external factors related to the author's employment. The content of the articles is the sole responsibility of the author and does not necessarily reflect the opinions of the institutions he is affiliated with.

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ARTICLE 1: STATE-OWNED ENTERPRISES, PUBLIC CORPORATE GOVERNANCE CODES, AND FINANCIAL PERFORMANCE: EVIDENCE FROM BRAZIL

ABSTRACT

Governments have increasingly issued public corporate governance codes (PCGC) prescribing rules or standards for the supervision and management of state-owned enterprises (SOEs). These codes aim to overcome SOEs' long-standing governance challenges, such as deficient monitoring and diversion of goals, whereas concurrently addressing SOEs' needs of democratic legitimacy and political control. Research have examined the diffusion, implementation, and quality of PCGCs worldwide. However, scarce empirical attention has been devoted to understanding their effects on SOEs` financial performance. This is concerning because SOEs are established with the purpose of being as financially sustainable as possible in the provision of goods and services, or in the pursuit of public interests. Thus, research should advance on examining whether PCGCs' induce improved financial performance. Herein, we investigate the effects of the 2016 Brazilian Law of SOEs (BLS), which is a comprehensive and mandatory PCGC enforceable to SOEs in all government levels (national, state and municipal). We examine a 2010-2023 panel of Brazilian listed firms, including 28 SOEs controlled by national and subnational governments, and show that the BLS caused increases in SOEs' financial performance measured as return on assets. We contribute to the literature by corroborating that PCGCs mitigate typical SOEs' agency conflicts. The study has policy implications by showing that mandatory governance regulations can foster financial sustainability of SOEs.

Keywords: State-owned enterprises; public corporate governance codes; financial performance.

INTRODUCTION

National and subnational governments both in developed and emerging countries have increasingly issued public corporate governance codes (PCGC) that constitute or complement the legal and regulatory framework under which state-owned enterprises (SOEs) operate (OECD, 2021). These codes prescribe rules or standards for the supervision and management of SOEs (Papenfuß & Wagner-Krechlok, 2023) and aim to overcome long-standing and typical SOEs' governance challenges, such as: principal-agent misalignment that implies deficient monitoring (Boardman & Vining, 1989; La Porta & López-de-Silanes, 1999); not clearly defined social and financial goals (Bai & Xu, 2005; Ramamurti, 1987); diversion of SOEs` goals by politicians for their own electoral or economic benefit (Shleifer, 1998; Shleifer & Vishny, 1994); soft budget constraints (Kornai, 1986; Lin & Tan, 1999); and complex public accountability (Aharoni, 1981; Seidman, 1954).

PCGCs are commonly based on guidelines and recommendations issued by international entities, such as the Organization for Economic Cooperation and Development, the World Bank, and the Development Bank of Latin America (CAF, 2021; OECD, 2015; World Bank, 2014). These entities' specialized standards consider the fact that state-ownership implies specific governance issues that are different from privately owned firms (Bruton et al., 2015; Musacchio & Lazzarini, 2014; Vining et al., 2021). For example, democratic legitimacy and processes of political control and public administration oversight, which derive from governments being owners of SOEs and from the need to pursue public interests, "must be taken into consideration when devising governance standards for SOEs" (Papenfuß & Wagner-Krechlok, 2023, p. 699).

In general terms, PCGCs comprise comprehensive sets of governance and management mechanisms, including: definition of the role of the state as an owner; setting of goals and scope of state-ownership; oversight by governmental bodies; assurance of

operational autonomy of SOEs; rules for appointments, independence, and composition of boards; routines for executive monitoring and remuneration; implementation of internal and external controls, transparency, and accountability. In this context, a strand of academic research and technical literature have examined the diffusion, implementation, and quality of PCGCs worldwide (Bernier et al., 2020; Cuomo et al., 2016; Mensi-Klarbach et al., 2021; OECD, 2020, 2023, 2024; Papenfuß & Wagner-Krechlok, 2023; World Bank, 2020).

However, scarce empirical attention has been devoted to understanding the actual effects of a PCGC, understood as a broad set of interconnected governance and management mechanisms, on SOEs' financial performance. A few studies find positive effects (Oliveira et al., 2020; Reddy et al., 2011), but the conclusions are not unanimous because the effects seem to depend on other factors, such as the monitoring of the implementation of the PCGC (Coelho et al., 2024). Therefore, considering both the scarcity and ambiguity in extant empirical findings, research on the overall impact of a PCGC implementation on SOEs' financial performance still needs to advance. Addressing this need is important because SOEs aim to being as financially sustainable as possible in the provision of public goods and services, or in the pursuit of specific public interests that justify their existence (Andrews et al., 2020; Rackwitz & Raffer, 2024). Moreover, without evidence on PCGC actual effects, there might be drawbacks in their actual implementation. Thus, disentangling the potential PCGCs actual financial effects on SOEs is relevant not only for scholarship but also for policy purposes.

To address this gap, our study aims to respond the following research question: Can the implementation of a comprehensive PCGC impact SOEs' financial performance? To answer this question, we investigate the financial performance effects of the 2016 Brazilian Law of SOEs (BLS), which is a comprehensive and mandatory PCGC enforceable to all SOEs in the country. Among other reasons, we use Brazil as our empirical setting because the BLS has been recognized as being reasonably aligned with the OECD's Guidelines on Corporate

Governance of SOEs (OECD, 2020) and thus its content represents a good approximation of what is typically portrayed in a PCGC. Moreover, given that the BLS is a mandatory PCGC and the time frame for its implementation was the same for all SOEs in the country (from June 2016 to June 2018), irrespective of the government level, there are clear time references for defining pre-treatment, adaptation, and post-treatment time periods, allowing for the use of a differences-in-differences model, which is commonly not feasible in other empirical settings and that is suitable for the examination of a potential causal relationship.

Our panel spans the years 2010-2023 and is comprised of data from 346 Brazilian listed firms, including 28 SOEs controlled by national and subnational governments, with a total of 3,665 firm-year observations. The study of Brazilian listed SOEs, which had previously adhered to more consolidated governance practices applicable to all listed firms, is relevant for the scholarly discussions on SOEs because it allows us to more accurately capture the specific effects of the BLS, and not simply the implementation of other general governance and management practices common to all firms.

Using the differences-in-differences method, we empirically evidence that the BLS have increased SOEs' profitability, as measured by return on assets (ROA). Our results are robust for several specifications. For example, considering that BLS was enacted by the national legislative, to rule out endogeneity of the independent variable, we run robustness checks considering only the effects of the BLS on subnational SOEs. We also run models with time and unit placebo approaches to demonstrate the robustness of our causality claims, as well as models with a matched dataset using the propensity score matching method. More importantly, our models consider the political ideology of governments, as well as economic growth, in the set of control variables, which has not yet been done in previous research on the topic (Coelho et al., 2024; Oliveira et al., 2020; Reddy et al., 2011). These variables have been recognized as important factors shaping the temptations of governments to intervene in SOEs'

management (Aguilera et al., 2021; Lazzarini & Musacchio, 2018) and may help to disentangle existing ambiguity in literature. We also control for firm size, leverage and tangibility, along with year, unit and industry-year effects, making our design especially rigorous. Finally, the results are robust for an alternative dependent variable that measures the effects of the BLS on SOEs' cashflows (the free cashflow to assets ratio).

From an agency theory perspective, we contribute to the literature by corroborating the idea that PCGCs can help corporatized public administration (PA) entities, such as SOEs, to overcome typical agency conflicts (Dixit, 2002), whereas concurrently addressing democratic legitimacy and processes of political control and public administration oversight (Papenfuß & Wagner-Krechlok, 2023, p. 699). By a neo-institutional prism, we expand the scholarly discourse on the role of a mandatory PCGC, understood as a formal and coercive institutional pressure, in inducing improvements on SOEs' financial performance. Our study expands not only the burgeoning strand of research about the implementation of PCGCs (Coelho et al., 2024; Oliveira et al., 2020; Papenfuß & Wagner-Krechlok, 2023; Reddy et al., 2011), but also sheds light on the importance of mandatory governance regulation, especially in emerging countries, where oversight institutions are weaker and PA entities more likely to game voluntary regulations (Osemeke & Adegbite, 2016; Wanyama et al., 2009).

THEORETICAL BACKGROUND

Extant research show that corporatized PA entities such as SOEs lead to better efficiency in the provision of public goods and services in comparison to their typical public sector counterparts, such as governmental departments and executive agencies (Lindlbauer et al., 2016; Voorn et al., 2017, 2022). The main reason is that corporatization shields organizations from politization, opening room for more professionalism (Bourdeaux, 2008). Moreover, corporatization may reduce agency costs inherent in typical bureaucratic bodies,

may better align with the interests of the different stakeholders, and may foster flexibility in decision-making, which generates efficiency gains (Lindlbauer et al., 2016).

Nevertheless, literature in both the management and public administration fields show that SOEs' financial performance are significantly influenced by how governance mechanisms are implemented, especially due to the typical agency conflicts of public sector entities (Dixit, 2002) and due to the potential diversion of organizational goals by politicians and politically connected directors and executives (Shleifer, 1998; Shleifer & Vishny, 1994). For example, PA scholars have found that corporatized PA has high initial failure rates, such as the dissolution of the entity (Voorn et al., 2017), which are associated with the levels of political control exercised by governments (Andrews, 2022). Political connectedness has been viewed as negatively affecting the efficiency of these entities because of increased employment (Menozzi et al., 2012), which illustrates the typical tensions between social and financial goals. Management scholars also show that SOEs face increased principal-agent conflicts derived from the multiplicity of goals (Aharoni, 1981; Ramamurti, 1987), from the lack of incentives for executives to improve financial performance (Boardman & Vining, 1989; La Porta & López-de-Silanes, 1999), and from deficient monitoring by the boards of directors (La Porta & López-de-Silanes, 1999; Megginson & Netter, 2001). Therefore, it is reasonable to expect that corporate governance mechanisms, such as those present in a PCGC, constitute a relevant topic for understanding SOEs' efficiency and hence their financial sustainability.

In general terms, a corporate governance code is "a set of best practices regarding the board of directors and other governance mechanisms", and it is designed "to address deficiencies in the corporate governance system" by defining a set of rules aimed at improving transparency and accountability among top managers and directors (Zattoni & Cuomo, 2008, p. 3). Although this type of document commonly targets all firms in a given institutional context, irrespective of their ownership type, the literature emphasizes that specialized

governance codes may be issued targeting particular types of firms, especially SOEs (Cuomo et al., 2016).

State-ownership implies specific governance issues that are different from privately owned firms (Bruton et al., 2015; Musacchio & Lazzarini, 2014; Vining et al., 2021). For example, democratic legitimacy and processes of political control and public administration oversight should be considered for the case of SOEs (Papenfuß & Wagner-Krechlok, 2023, p. 699). In this context, several governments around the world, both at the national and subnational levels, have issued PCGCs, specifically designed for the case of SOEs and following recommendations and guidelines from international entities, such as the Organization for Economic Cooperation and Development, the World Bank, and the Development Bank of Latin America (CAF, 2021; OECD, 2015; World Bank, 2014).

We expect that a PCGC can improve financial performance of SOEs in a given context because its provisions may induce SOEs' board of directors to control the behavior and performance of SOEs' executives more actively and independently. Governance code provisions are widely recognized as having the potential to reduce agency conflicts (Aguilera & Cuervo-Cazurra, 2009; Cuomo et al., 2016; Zattoni & Cuomo, 2008). Hence, in the case of SOEs, PCGCs may foster the implementation of a diverse set of mechanisms, such as: a minimum percentage of independent directors in the board; the creation of board committees on SOEs (e.g., audit and nomination); requirements for a clear definition of management goals and reporting; clear rules about transactions with related parties, especially with the controlling shareholder (i.e., the government); implementation of risk management and internal control practices in SOEs.

Furthermore, a PCGC typically establishes specific formal channels through which the state owner can define the public interests that should be pursued by SOEs, reducing the uncertainty about the tradeoffs between social and financial goals (Bai & Xu, 2005). It also

restricts nomination and appointments of politicians and senior public officials as SOEs' directors and executives, which contributes to reducing diversion of goals for their own electoral benefits (Shleifer & Vishny, 1994, 1994). Finally, a clearer legal and regulatory framework, enforceable by governmental audit and market oversight boards, helps to reduce conflicts between the government (controlling shareholder) and private investors (Young et al., 2008), as well as to temper the temptation of governments to intervene more fiercely in SOEs' management in times of economic recessions (Lazzarini & Musacchio, 2018) or due to political ideology inclination (Aguilera et al., 2021).

PCGCs are commonly issued in a "comply-or-explain" basis, allowing SOEs to not comply with specific provisions, depending on the context, but requiring the disclosure of a justification (Cuomo et al., 2016; Papenfuß & Wagner-Krechlok, 2023). Thus, non-compliance should be justified, which makes the case for even non-mandatory PCGCs to play a role in shaping financial performance of SOEs. However, the literature recognizes that codes of governance may also be implemented by means of a mandatory regulation (Aguilera & Cuervo-Cazurra, 2009; Cuomo et al., 2016). Indeed, there is research defending that mandatory governance codes tend to be more effective, especially in emerging countries, where oversight institutions are weaker and firms may game voluntary rules more frequently (Osemeke & Adegbite, 2016; Wanyama et al., 2009).

Nevertheless, scarce empirical attention has been devoted to understanding the actual effects of the implementation of PCGCs on SOEs' financial performance. A study about New Zealand's SOEs showed that financial performance improved after the implementation of a non-mandatory code of governance (Reddy et al., 2011). An investigation of Brazilian listed SOEs showed that the volatility of their share prices decreased after the implementation of a mandatory PCGC (Oliveira et al., 2020). In turn, a more recent study poses that a significant

positive effect in Brazil's SOEs only happened when coupled with other monitoring mechanisms reinforcing the implementation of the PCGC (Coelho et al., 2024).

Therefore, although it can be reasonably expected that PCGCs improve SOEs' financial performance, empirical research is still very scarce and ambiguous, creating the need of scholarship to advance on empirically examining the topic. In the next subsection, we describe Brazil's institutional setting regarding SOEs, as well as the implementation of the Brazilian Law of SOEs (BLS), which is a mandatory PCGC enforceable to all SOEs in the country. Following, we present, in Section IV, our hypothesis about the effects of the BLS, understood as a typical PCGC. The hypothesis is grounded both in the theoretical framework presented in this section and in the institutional setting presented in the next section.

INSTITUTIONAL BACKGROUND: BRAZIL AND THE IMPLEMENTATION OF ITS PCGC

Brazil is the largest country in Latin America, and as of 2024 it is the eighth largest economy in the world by gross domestic product (IMF, 2024). The country has a population of about 205 million people and is a federation composed of 26 politically and administratively autonomous states, plus the Federal District. Each state is also divided into municipalities (a total of 5563 municipal governments in the country). It is a developing country plagued by economic and social inequality challenges. SOEs have played a historical important role in Brazilian public administration and economy by addressing social issues, providing public goods and services, pursuing public interests and fostering economic development (Costa, 2008; Musacchio & Lazzarini, 2014).

The Federal Constitution of 1988 establishes that the state both at the national or subnational levels can only run economic activities through SOEs when justified by "national security imperatives" or "relevant collective interests". Brazil's legal system is based on the

Civil Law tradition, and all levels of government can establish SOEs through the enactment of a law (i.e., with the approval of the respective legislative branch) that should formally define the public interests to be pursued by the SOE. Under certain circumstances, both governments and majority owned SOEs can also own minority shareholdings in other firms. The Constitution also prescribed that a specific law enacted by the Federal legislative would define the legal and regulatory framework applicable to SOEs in the whole country. However, despite of the fact that all governments in Brazil have traditionally owned SOEs for decades, the Brazilian Law of SOEs (BLS) was enacted only in June 2016, and fully enforceable to all SOEs in which the state has a majority shareholding (i.e., the state has control rights) beginning in July 2018.

Prior to the BLS, national and subnational SOEs in Brazil were embedded in a legal and regulatory framework that mixed both public administration and general corporations' legislation. For example, all SOEs were expected to comply with higher-order public administration norms defined in the Constitution, such as: the "principles of legality, impersonality, morality, publicity and efficiency"; the obligation to hire employees through competitive examinations; the need to include their investment plans in the annual public budget; the obligation to comply with the public administration procurement legislation; and the oversight of a governmental body (a Ministry at the national level or a Secretariat at the subnational level). SOEs also followed other legislation applicable to public organizations, such as the Anticorruption Act (Law 12.846/2013), the Administrative Improbity Act (Law 8.429/1992) and the Conflicts of Interests Prevention Act (Law 12.813/2013), as well as those applicable to private enterprises, such as the Brazilian Law of Corporations (Lei 6.404/1976), the Civil Code (Lei 10.406/2002) and the general securities and stock exchange regulations.

However, prior to the BLS there were no specific SOEs' governance and management regulations consolidated as a typical PCGC. For example, there were almost no restrictions for a government to appoint politicians or public officials as board members or executives of SOEs, nor specific regulations about the role of the state as an owner. Moreover, there were no clear guidance on how the public interests that justify the existence of an SOE were supposed to be pursued, and how the balance between social goals and financial sustainability were to be addressed. Several other governance mechanisms, such as the implementation of audit committees, internal controls and risk management practices, standards of transparency and accountability were not clearly defined for SOEs prior the BLS.

After the implementation of the BLS, although the general legal and regulatory framework continued to be fully applicable to SOEs, specific public corporate governance and management mechanisms were added to this general framework. As highlighted in a recent review of its implementation (OECD, 2020), the BLS contains a set of rules regulating the relationship between the state, as the controlling shareholder, and its SOEs more clearly. It induces a more objective separation of the mandates of senior public officials, such as Ministries and Secretaries, and of SOEs' board members (directors). Moreover, it fosters transparency of the public policy goals pursued by the SOEs and reinforces that the government cannot directly intervene in the decisions made by SOEs' boards. The BLS defines that any public policy obligation or responsibility to be borne by an SOE – and that would not typically be applicable to an equivalent privately owned enterprise – should be previously and clearly defined in a law, bylaws, regulation, or contract with the state owner. As highlighted by the OECD (2020), this provision limits the board's capacity to establish by itself (e.g., when pressured by the government) public policy goals that are not already explicit for the SOE in previous and formal documents. The idea of this regulatory architecture is to ensure that SOEs respond to the public administration needs and to adequate levels of political control, whereas

concurrently restraining the typical diversion of SOEs' goals to address electoral or economic goals of incumbents.

In other words, this comprehensive set of provisions seeks to concurrently mitigate agency conflicts and ensure democratic legitimacy by, on the one hand, restricting the appointment of politically connected directors and executives and, on the other hand, requiring a clear and previous definition of SOE's public policy goals through a law, the bylaws, regulation, and/or contract with the state owner. The BLS establishes a more stringent transparency and accountability framework, such as the need of publication by each SOE of the Annual Letter on Corporate Governance and Public Policies, and annual evaluation of SOEs executives' performance. It also guarantees full jurisdiction of governmental audit bodies, such as the Courts of Accounts (e.g., *Tribunais de Contas*, in Portuguese), as well as the executive branch internal control bodies (e.g., *"Controladoria-Geral"*, in Portuguese), that can execute performance, conformity and financial audits in any SOE.

Other relevant governance and management provisions present in the BLS that aim to mitigate agency conflicts are: the need to create audit and nomination committees; restrictions on the appointments of politicians and senior public officials as members of the board or as executives of SOEs; the creation of minimum requirements of transparency, such as annual and quarterly financial statements following applicable financial standards; the need of financial statements to be examined by independent auditors registered at the Brazil's securities regulatory body (*Comissão de Valores Mobiliários* – CVM); the obligation that executives publish an annual letter addressing public policy goals pursued by the SOE, along with the detailed description of the corporate governance practices adopted; the obligation for executives to adopt risk management and internal control practices.

The BLS has been enacted in 2016 following one of the most important corruption scandals in Brazil's history that was brought to light in 2014 and has had significant social,

economic, and political consequences for the country. The so-called "Operation Car Wash" investigation uncovered an extensive transnational bribery scheme involving the largest and most important Brazilian SOE, the national oil and gas giant, Petrobras. The Brazilian public prosecutors indicted hundreds of individuals, including politicians, board members and executives. Therefore, the BLS implementation was coupled with strong societal pressures on governments to change the governance and management of SOEs in the country (OECD, 2020).

Lastly, it is important to note that the implementation of the BLS started in June 2016, when the law was enacted, but it was fully enforceable only from July 2018. That is, the BLS had a two-year period of *vacatio legis* during which SOEs were supposed to adapt their governance and management practices to comply with the new regulations. Thus, in Brazil's institutional setting there are clear and unequivocal reference points in time that allow for comparisons between pre-treatment (prior the BLS), adaptation, and post-treatment (post the BLS) periods that have distinct legal and regulatory frameworks for SOEs. This institutional characteristic allows for the use of a differences-in-differences model in our investigation, which is commonly not feasible in other empirical settings. This is the main reason the BLS, as a mandatory PCGC in Brazil, is appropriate and valuable for our purposes. Another reason to use Brazil as our empirical setting is that the BLS has been recognized as being reasonably aligned with the OECD's Guidelines on Corporate Governance of SOEs (OECD, 2020). Thus, it is reasonable to expect that the content of the BLS represents a good approximation of what is typically portrayed in a PCGC, sustaining the generalizability of our findings.

HYPOTHESIS DEVELOPMENT

We expect that the implementation of a mandatory PCGC in Brazil, which is represented by the BLS and comprehends a broad set of governance and management practices

enforceable to all SOEs in the country, positively impacts their financial performance. A mandatory governance code tends to be more effective in an emerging country, such as Brazil, than non-mandatory ones (Osemeke & Adegbite, 2016; Wanyama et al., 2009). Moreover, there is evidence that not only the BLS has been satisfactorily implemented, but also that it is aligned with the usual guidelines and standards issued by international standard-setters, such as the OECD (OECD, 2020). Thus, grounded on the theoretical and institutional backgrounds respectively described in Sections II and III, we formulate the hypothesis below.

H1. *Financial performance of SOEs in Brazil is stronger after the implementation of the Brazilian Law of SOEs than prior to its enactment.*

DATA AND METHODS

Sample

To test the hypothesis, we analyze a dataset of 346 listed Brazilian firms, of which 28 have majority national or subnational state ownership at least in one period. The unbalanced panel spans the years 2010–2023 and comprises 3,665 firm-year observations. Although Brazil is an emerging economy, its financial markets have experimented significant institutional strengthening in the last decades, especially regarding the adoption of both international financial reporting standards (IFRS) and corporate governance mechanisms by listed firms (Black et al., 2023; Sampaio et al., 2020). Thus, the study of Brazilian listed SOEs, which had previously adhered to more consolidated governance practices applicable to all listed firms, is relevant for the scholarly discourse on SOEs because it allows us to more accurately capturing the specific effects of the BLS, and not simply the implementation of other general governance practices common to all firms. The reason we selected the year 2010 as our starting point in time is that this was the first year in which the adoption of IFRS was required by Brazilian listed firms, ensuring the quality and comparability of financial information. Our sample allows for the use of differences-in-differences models, in which privately-owned firms' financial

performance are used as the baseline for assessing potential changes in SOEs' financial performance deriving from the BLS implementation. This approach would not be possible with non-listed SOEs.

Dependent Variable

We adopt *Return on Assets* (*ROA*) as our measure of financial performance of SOEs and privately-owned firms. It is calculated as *Net Income* divided by *Total Assets*. *ROA* is extensively used in research examining SOEs financial performance (Aguilera et al., 2021; Coelho et al., 2024; Lazzarini & Musacchio, 2018; Reddy et al., 2011). To avoid our results being driven by outliers, as well as considering the wide ROA variation, we follow extant research and winsorize *ROA* at the 1% and 99% percentiles (Lazzarini & Musacchio, 2018). We present robustness checks without winsorization.

Given that *ROA* reflects the profitability of SOEs and other firms, it does not fully capture the effects on free cashflows, which is another very important dimension of financial sustainability of SOEs (e.g., sustainable cashflows avoid the need of the government to transfer financial resources to SOEs). For this reason, we run robustness checks showing the effects of the BLS in a cashflow-based measure, which is the *Free Cash Flow to Assets Ratio* (*FCFAR*). It reflects the firms' capacity of generating cashflows relative to its size (*Total Assets*).

Independent Variable

As shown next in the "Econometric Design" subsection, we employ a differences-in-differences model. Thus, we operationalize a dummy variable reflecting whether a firm has majority state ownership: *SOE_Maj* equals 1 if the state owns more than 50% of a firm's capital, thus exercising control rights and being fully subject to the BLS, and 0 otherwise. We manually searched the websites of national and subnational governments and firms to identify the existence of majority state ownership. In total, 28 firms are majority-owned, with 10 controlled by the Brazilian national government and 18 by subnational governments. Then, we

created a categorical variable entitled *BLS_Periods* that equals 0 if the year is in the 2010-2015 period (the "before" period, baseline), 1 if the year is in the 2016-2018 period (the "implementation" period), and 2 if the year is greater or equal to 2019 (the "post" period). The rationale for these periods is that 2015 was the last fiscal year in which the BLS did not exist, the years 2016-2018 were the fiscal years in which the BLS was being implemented by SOEs and hence not fully in force during the whole year, and 2019 was the first year in which the BLS was fully enforceable during the whole year. With the *SOE_Maj* and *BLS_Periods* variables we can implement the interaction term used in the differences-in-differences models.

We also run robustness checks using a more traditional differences-in-differences approach. We created the Post2016, Post2017 and Post2018 variables, reflecting whether the year was equal or greater than, respectively, 2016, 2017 and 2018. Then, we interacted these variables with SOE_Maj to run the robustness checks models.

Control Variables

Table 1 presents details of and reasons for using the control variables in our models. These variables have been systematically adopted in other empirical studies aimed at investigating performance of SOEs or firms in general. In sum, it is worth noting that our models consider the political ideology of governments, as well as economic growth, in the set of control variables, which has not yet been done in previous research on the topic (Coelho et al., 2024; Oliveira et al., 2020; Reddy et al., 2011). These variables have been recognized as important factors shaping the temptations of governments to intervene in SOEs' management (Aguilera et al., 2021; Lazzarini & Musacchio, 2018) and may help to disentangle existing ambiguity in literature. We also control for firm size, leverage and tangibility, along with year, unit and industry-year effects, making our design especially rigorous. A lagged version of the dependent variable is used as an additional control for autocorrelation.

Table 1: Control Variables Used in Econometric Models.

Variable	Description	Source*	Reason for use	Reference
Size	Natural log. of total assets	A	Firm size affects engagement in CSR.	(Aguilera et al., 2021; Coelho et al., 2024; Lazzarini & Musacchio, 2018; Musacchio & Lazzarini, 2014; Reddy et al., 2011; Sampaio et al., 2020)
Leverage	Average total assets divided by average total common equity	A	The risk level influences firms' CSR engagement.	
Tangibility	Net fixed assets divided by total assets	A	Measures capital intensity, and is commonly used in state ownership research to control for possible reasons for state involvement in specific types of firms or industries.	
GDP Variation	Annual Gross Domestic Product (GDP) growth	B	Economic growth rates may affect firms' financial performance, especially for SOEs because the government may be more tempted to intervene in firm management in times of recession.	(Lazzarini & Musacchio, 2018)
National Government Ideology	Score of the national government on the left–right-leaning spectrum	C	The national government's political ideology has the potential to affect the performance of all firms in the country, especially SOEs.	(Aguilera et al., 2021; Ioannou & Serafeim, 2012; Jackson & Apostolakou, 2010)
Subnational Government Ideology	Score of the subnational (state) government on the left–right-leaning spectrum	C	The subnational government's political ideology has the potential to affect the performance of all firms in its jurisdiction, especially SOEs.	(Aguilera et al., 2021; Ioannou & Serafeim, 2012; Jackson & Apostolakou, 2010)
SOE_Min	SOE_Min equals 1 if the state has a minority shareholding, and 0 otherwise	D	Although the BLS is fully enforceable only to majority-owned SOEs (SOE_Maj), governmental influence may shape the performance of firms in which the state has minority shareholdings.	(Bruton et al., 2015; Lazzarini & Musacchio, 2018; Vining et al., 2021)
SOE_Maj_Fed	SOE_Maj_Fed equals 1 if SOE is of the national level (Federal Government), and 0 otherwise	E	State capacity is a variable widely recognized as an important factor affecting the performance of SOEs. For example, because of a more robust capacity, the Federal government implemented a sophisticated monitoring system for its SOEs, including a governance measure (IG-Sest).	(Aguilera et al., 2021; Coelho et al., 2024; Lazzarini & Musacchio, 2018; OECD, 2020)

* Sources of data: A: Licensed Bloomberg Terminal; B: IPEA/IBGE; C: Bolognesi et al. (2023); D: BNDES; E: search in government websites and financial statements.

Econometric Design

The econometric model to test our hypothesis is specified as follows:

$$ROA_{it} = \beta_1 SOE\_Maj_{it} + \beta_2 BLS\_Period_t + \beta_3 SOE\_Maj_{it} \times BLS\_Period_t + \delta^k CONTROLS + \alpha_i + \mu_t + \gamma_{ts} + \varepsilon_{it} \quad (1)$$

Where ROA_{it} stands for return on assets of firm i at time t; SOE_Maj_{it} indicates if firm i is majority state-owned at time t; *BLS_Period* indicates the period of the observation (before BLS, adaptation period, or after BLS), δ is a vector of coefficients for the different control variables of the study (k is the number of control variables); *CONTROLS* is a vector of control variables (see Table 1); α_i, μ_t and γ_{ts} respectively represent firm, year and industry-year fixed effects; and ε_{it} is the error term.

RESULTS

Table 2 presents the descriptive statistics and pairwise correlations for the variables used in our econometric models. None of the correlations among the independent and control variables exceeds 0.75, indicating that multicollinearity is not a serious issue.

Table 2: Descriptive Statistics and pairwise correlations.

Variables	Mean	Std. Dev.	Min	Max	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) ROA	3.25	12.86	-136.22	40.23	1.00								
(2) FCFA	0.02	0.10	-0.40	0.31	0.39	1.00							
(3) SOE_Maj	0.06	0.24	0	1	0.04	0.03	1.00						
(4) SOE_Min	0.07	0.25	0	1	-0.00	-0.03	-0.07	1.00					
(5) Ideo. (nat)	5.53	2.39	2.97	8.11	0.01	-0.02	-0.01	-0.04	1.00				
(6) Ideo. (sub)	6.70	1.50	1.92	8.57	-0.03	0.02	-0.04	0.01	0.01	1.00			
(7) GDP var.	1.55	3.02	-3.55	7.53	0.06	-0.07	0.00	-0.01	-0.22	0.04	1.00		
(8) Size	6.77	2.04	-6.28	12.70	0.44	0.19	0.21	0.07	-0.07	-0.05	0.05	1.00	
(9) Leverage	4.95	40.17	1	1884.35	-0.04	0.00	0.01	-0.01	0.03	0.01	-0.02	0.01	1.00
(10) Tangib.	23.88	22.61	0	95.46	0.03	-0.07	-0.08	0.13	-0.03	-0.02	-0.01	0.06	-0.02

Table 3 presents our main panel data regressions results for the differences-in-differences (DiD) models. Models 1 to 6 present the results for the DiD using a variable that reflects the three distinct periods: the pre-treatment (baseline), the BLS adaptation period (2016-2018), and the post implementation period (2019-2023). All these six models show that, whereas being a majority SOE (*SOE_MAJ*) negatively affects the financial performance of the

firms in the dataset, the full implementation of the BLS (*BLS_Post*) had a significant positive impact for majority SOEs, reducing the financial performance gap in relation to other firms. Model 4 represents the main specification, with year, firm and industry-year effects, and shows that the BLS reduced the negative effects of state-ownership on performance (model 4: $\beta = 2.30$, $p < 0.05$). Model 5 shows that the effect remains relevant even when considering the non-winsorized dependent variable (model 5: $\beta = 6.21$, $p < 0.10$).

The BLS was passed in the legislative branch of the national level, and enforceable to all SOEs in the country, including the subnational ones (at the state and municipal levels). As explained in Section III, the implementation of the BLS was coupled with both the need of the national government to change their SOEs landscape and the social pressures derived from corruption scandals in a national SOE (Petrobras). Thus, one could argue that the changes in financial performance was not derived from the BLS itself, but from other endogenous factors in the national government. To rule out the possibility of this endogeneity concern, Model 6 shows that the effects of the BLS on SOEs financial performance remains relevant even when considering only the subnational majority SOEs in the interaction term, instead of all majority SOEs (model 6: $\beta = 2.12$, $p < 0.10$). This result shows that the effects can be reasonably attributable to the BLS, given it was not issued by subnational governments.

Lastly, Models 7, 8 and 9 show that, irrespective of the year of reference for the DiD models (2016, 2017 and 2018), the results remain significant and consistent (model 7: $\beta = 1{,}43$, $p < 0.10$; model 8: $\beta = 1.81$, $p < 0.05$; model 9: $\beta = 1.57$, $p < 0.10$).

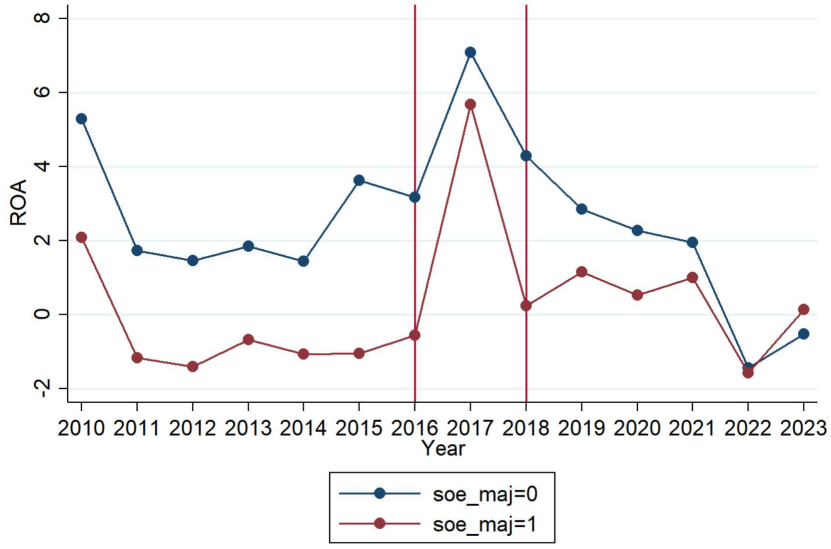
Table 3: Panel data regression results for the main dependent variable (ROA).

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Diff-in-Diff Interactions									
SOE_MAJ x BLS_Adapt. (2016-2018)	0.57	0.58	0.71	0.07	2.44				
	(0.76)	(0.76)	(0.90)	(1.15)	(3.55)				
SOE_MAJ_Sub x BLS_Adapt. (2016-2018)						-0.11			
						(1.22)			
SOE_MAJ x BLS_Post (2019-2023)	**1.27***	**1.26***	**2.05****	**2.30****	**6.21***				
	(0.74)	(0.74)	(0.88)	(1.02)	(3.24)				
SOE_MAJ_Sub x BLS_Post (2019-2023)						**2.12***			
						(1.27)			
SOE_MAJ x Post 2016							**1.43***		
							(0.83)		
SOE_MAJ x Post 2017								**1.81****	
								(0.82)	
SOE_MAJ x Post 2018									**1.57***
									(0.82)
Indep. and control variables									
SOE_MAJ	-0.95*	-0.95*	-2.37***	-3.10***	-9.82***	-2.90***	-3.12***	-3.19***	-2.96***
	(0.57)	(0.57)	(0.81)	(1.05)	(3.15)	(1.09)	(1.07)	(1.05)	(1.06)
BLS Implementation (2016-2018)	-0.01	7.81***	5.20**	9.02*	14.85*	9.03*			
	(0.60)	(2.48)	(2.61)	(4.84)	(8.17)	(4.83)			
BLS Post (2019-2023)	-0.00	5.42***	2.70	1.73	-1.15	1.73			
	(0.61)	(1.80)	(1.76)	(2.53)	(4.15)	(2.53)			
Post 2016							1.74		
							(2.53)		
Post 2017								1.74	
								(2.53)	
Post 2018									1.74
									(2.53)
Roa (one-year lagged)	0.77***	0.77***	0.40***	0.39***	-0.02**	0.39***	0.39***	0.39***	0.39***
	(0.04)	(0.04)	(0.08)	(0.08)	(0.01)	(0.08)	(0.08)	(0.08)	(0.08)
SOE_MIN	-0.64	-0.61	-1.61	-1.11	-1.02	-1.08	-1.06	-1.09	-1.08
	(0.57)	(0.57)	(0.98)	(1.11)	(2.14)	(1.11)	(1.12)	(1.12)	(1.11)
SOE_MAJ_FED	-1.42	-1.43	-0.16	-0.94	1.71	-3.61**	-0.78	-0.82	-0.91
	(1.08)	(1.07)	(1.29)	(1.59)	(2.93)	(1.56)	(1.58)	(1.59)	(1.58)
Political Ideology (Nat. Gov,)	0.22**	-0.08	0.05	-0.18	0.37**	-0.18	-0.18	-0.18	-0.18
	(0.11)	(0.14)	(0.10)	(0.19)	(0.18)	(0.19)	(0.19)	(0.19)	(0.19)
Political Ideology (Subnat. Gov,)	-0.02	-0.04	0.10	0.12	0.03	0.12	0.11	0.10	0.11
	(0.08)	(0.08)	(0.12)	(0.12)	(0.37)	(0.12)	(0.12)	(0.12)	(0.12)
GDP Variation	0.20***	1.54***	1.31***	1.63***	2.75**	1.63***	1.62***	1.62***	1.62***
	(0.05)	(0.35)	(0.33)	(0.61)	(1.16)	(0.61)	(0.61)	(0.61)	(0.61)
Size	0.77***	0.78***	2.61	2.94	11.81**	2.93	2.91	2.92	2.92
	(0.20)	(0.20)	(1.75)	(1.87)	(5.90)	(1.87)	(1.87)	(1.87)	(1.87)
Leverage	0.00	0.00	-0.00	-0.00	-0.01	-0.00	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tangibility	0.01	0.01	-0.05**	-0.02	-0.03	-0.02	-0.02	-0.02	-0.02
	(0.01)	(0.01)	(0.02)	(0.02)	(0.04)	(0.02)	(0.02)	(0.02)	(0.02)
Constant	-6.40***	-14.71***	-23.64*	-28.23*	-96.64**	-28.23*	-27.95*	-27.99*	-28.07*
	(1.48)	(2.88)	(13.47)	(15.70)	(46.98)	(15.70)	(15.69)	(15.68)	(15.69)
Observations	3,665	3,665	3,665	3,665	3,665	3,665	3,665	3,665	3,665
Groups	346	346	346	346	346	346	346	346	346
R-squared	0.72	0.72	0.23	0.33	0.17	0.33	0.33	0.33	0.33
Year FE	N	Y	Y	Y	Y	Y	Y	Y	Y
Firm FE	N	N	Y	Y	Y	Y	Y	Y	Y
Industry x Year FE	N	N	N	Y	Y	Y	Y	Y	Y
Winsorized DV	Y	Y	Y	Y	N	Y	Y	Y	Y

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The results of our DiD models are illustrated in Figure 1. While before the BLS implementation state-ownership implied a negative gap in *ROA*, in the post implementation period (2019-2023) there is a perceptible smaller difference attributable to state-ownership. That is, considering non-SOEs as the baseline, SOEs are performing financially better after the implementation of the BLS than before, which renders supports to our hypothesis.

Figure 1: Predictive margins for the interactions between *SOE_MAJ* and *years*.



Robustness Checks

Table 4 presents the result of placebo checks aiming at ruling out the possibility that the same results could have been obtained using other groups of treated units (different from majority SOEs) or distinct time references in the DiD models. Model 1 shows that when considering fictitious implementation (2013-2015) and post (2016-2023) periods, the results become non-significant, corroborating the idea that indeed the implementation of the BLS caused the changes observed in SOEs' ROA, and not that this is due to an increasing trend or any other factors attributable to time. Models 2, 3 and 4 corroborate this conclusion by checking the results using respectively the years 2013, 2014, 2015 as the time references for the post periods in the DiD models. None of the coefficients are statistically significant.

Models 5 and 6 present the results for two different groups of firms randomly assigned to "placebo groups" (i.e., fictitious SOEs). These two groups were defined with an equivalent number of SOEs present in the dataset. The coefficients of the interaction term between the placebo groups and the post indicator are not statistically significant. It is interesting to note that the negative association of majority state ownership and performance remained in Models 1 to 4, but not in Models 5 and 6. This is consistent with agency conflicts negatively affecting majority SOEs and corroborates the robustness of our results.

Table 4: Time and unit placebo checks for regressions with ROA as DV.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Time Placebos – Diff-in-Diff variables						
SOE_MAJ x BLS Implem. Placebo (2013-2015)	-0.18					
	(0.94)					
SOE_MAJ x BLS_Post Placebo (2016-2023)	1.34					
	(1.01)					
SOE_MAJ x Post 2013		0.88				
		(0.90)				
SOE_MAJ x Post 2014			0.81			
			(0.95)			
SOE_MAJ x Post 2015				0.79		
				(1.00)		
SOEs Placebos – Diff-in-Diff variables						
SOE_MAJ Placebo 1 x BLS Implem. (2016-2018)					0.69	
					(2.07)	
SOE_MAJ Placebo 1 x BLS_Post (2019-2023)					1.66	
					(2.78)	
SOE_MAJ Placebo 2 x BLS Implem. (2016-2018)						0.12
						(1.25)
SOE_MAJ Placebo 2 x BLS_Post (2019-2023)						0.12
						(1.05)
Indep. and control variables						
SOE_MAJ	-3.03**	-3.01**	-2.90**	-2.83**		
	(1.23)	(1.24)	(1.21)	(1.14)		
SOE_MAJ Placebo 1					8.92	
					(10.26)	
SOE_MAJ Placebo 2						0.11
						(1.32)
BLS Implem. Placebo (2013-2015)	16.30**					
	(6.98)					
BLS_Post Placebo (2016-2023)	1.74					
	(2.53)					
Post 2013		1.74				
		(2.53)				
Post 2014			1.74			
			(2.53)			
Post 2015				1.74		
				(2.53)		
BLS Implementation (2016-2018)					9.04*	8.99*
					(4.84)	(4.87)
BLS Post (2019-2023)					1.74	1.72
					(2.53)	(2.55)
Roa (one-year lagged)	0.39***	0.39***	0.39***	0.39***	0.39***	0.39***
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
SOE_MIN	-1.06	-1.02	-1.03	-1.04	-1.04	-1.02
	(1.12)	(1.11)	(1.11)	(1.11)	(1.12)	(1.11)
SOE_MAJ_FED	-0.80	-0.84	-0.79	-0.83	-3.22**	-3.24**
	(1.59)	(1.59)	(1.58)	(1.57)	(1.54)	(1.55)
Political Ideology (Nat. Gov,)	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18
	(0.19)	(0.19)	(0.19)	(0.19)	(0.19)	(0.19)
Political Ideology (Subnat. Gov,)	0.11	0.12	0.12	0.11	0.13	0.12
	(0.12)	(0.12)	(0.12)	(0.12)	(0.11)	(0.12)
GDP Variation	1.62***	1.62***	1.62***	1.62***	1.62***	1.62***
	(0.61)	(0.61)	(0.61)	(0.61)	(0.61)	(0.61)
Size	2.91	2.90	2.91	2.91	2.91	2.90
	(1.87)	(1.87)	(1.87)	(1.87)	(1.87)	(1.87)
Leverage	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tangibility	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Constant	-27.97*	-27.98*	-27.99*	-27.98*	-28.95*	-28.18*
	(15.69)	(15.70)	(15.70)	(15.70)	(15.72)	(15.72)
Observations	3,665	3,665	3,665	3,665	3,665	3,665
Groups	346	346	346	346	346	346
R-squared	0.33	0.33	0.33	0.33	0.33	0.33

All models with year, firm and year-industry fixed effects, and winsorized dependent variable.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1.

Table 5 presents the panel data regression results using an alternative dependent variable that reflects the capacity of a firm to generate free cashflow relative to its total assets. We employ the free cashflow to total assets ratio (FCFA). As shown in Model 1, the coefficient of interaction between majority SOE and the post BLS period is positive and statistically significant (model 1: $\beta = 0.05$, $p < 0.05$), which shows that the BLS impacted not only the profitability of SOEs but also its cashflows. Although Model 2 shows no significance in the alternative interaction between majority SOE and the post 2016, Models 3 and 4 consistently corroborate the BLS effects on SOEs' FCFA after 2017 and 2018 (model 3: $\beta = 0.04$, $p < 0.05$; model 4: $\beta = 0.04$, $p < 0.01$).

Table 5: Panel data regression results for the alternative dependent variable (FCFA).

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Diff-in-Diff Interactions							
SOE_MAJ x BLS Implem. (2016-2018)	0.01						
	(0.02)						
SOE_MAJ x BLS_Post (2019-2023)	**0.05****						
	(0.02)						
SOE_MAJ x Post 2016		0.03					
		(0.02)					
SOE_MAJ x Post 2017			**0.04****				
			(0.02)				
SOE_MAJ x Post 2018				**0.04*****			
				(0.01)			
Placebo Checks - Diff-in-Diff Interactions							
SOE_MAJ x BLS Implem. Placebo (2013-2015)					-0.04**		
					(0.02)		
SOE_MAJ x BLS_Post Placebo (2016-2023)					0.01		
					(0.02)		
SOE_MAJ Placebo 1 x BLS Implem. (2016-2018)						-0.01	
						(0.03)	
SOE_MAJ Placebo 1 x BLS_Post (2019-2023)						0.01	
						(0.02)	
SOE_MAJ Placebo 2 x BLS Implem. (2016-2018)							0.01
							(0.01)
SOE_MAJ Placebo 2 x BLS_Post (2019-2023)							-0.00
							(0.01)
Indep. and control variables							
SOE_MAJ	0.03**	0.03**	0.03**	0.03***	0.05**		
	(0.02)	(0.02)	(0.01)	(0.01)	(0.02)		
BLS Implementation (2016-2018)	0.03					0.03	0.03
	(0.08)					(0.08)	(0.08)
BLS Post (2019-2023)	0.01					0.01	0.01
	(0.07)					(0.07)	(0.07)
Post 2016		0.01					
		(0.07)					
Post 2017			0.01				
			(0.07)				
Post 2018				0.01			
				(0.07)			
BLS Implem. Placebo (2013-2015)					0.08		
					(0.10)		
BLS_Post Placebo (2016-2023)					0.01		
					(0.07)		
SOE_MAJ Placebo 1						0.02	
						(0.03)	
SOE_MAJ Placebo 2							0.00
							(0.02)
FCFA (one-year lagged)	0.23***	0.23***	0.23***	0.23***	0.23***	0.23***	0.23***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
SOE_MIN	-0.00	0.00	-0.00	-0.00	0.00	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
SOE_MAJ_FED	-0.03*	-0.03	-0.03*	-0.03*	-0.02	0.02	0.02
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Political Ideology (Nat. Gov,)	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Political Ideology (Subnat. Gov,)	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**	0.00**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
GDP Variation	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Size	-0.01**	-0.01**	-0.01**	-0.01**	-0.01**	-0.01**	-0.01**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Leverage	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tangibility	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	-0.00	0.00	-0.00	-0.00	0.00	0.00	0.00
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Observations	3,377	3,377	3,377	3,377	3,377	3,377	3,377
Groups	326	326	326	326	326	326	326
R-squared	0.22	0.22	0.22	0.22	0.22	0.22	0.22

All models with year, firm and year-industry fixed effects, and winsorized dependent variable.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

As our final robustness check, we implement DiD models after matching firms according to their pre-treatment characteristics by using propensity score matching. By matching observations with similar pre-treatment traits before running the DiD analysis, we minimize the two sources of bias (differential baseline and differential treatment effect) and make the conditional ignorability assumption to hold more reasonably. The dependent variable used in the matching method was majority state ownership (*SOE_MAJ*) in 2015, the year immediately before the enactment of BLS. The selected matching variables were leverage, tangibility and size in each of the years in the 2010-2015 period. The matched sample was obtained with nearest neighbor technique without replacement and has standardized mean bias and median bias of 9.0% and 8.9% respectively, against 43,6% and 53,3% of the unmatched sample. The balance in the matched sample is satisfactory as the standardized bias for all variables are below the typical threshold of 25%, as demonstrated graphically in Figure 2. A total of 21 majority SOEs (6 national and 15 subnational) were paired with 21 non-SOEs.

Figure 2: Standardized bias in matched and unmatched variables.

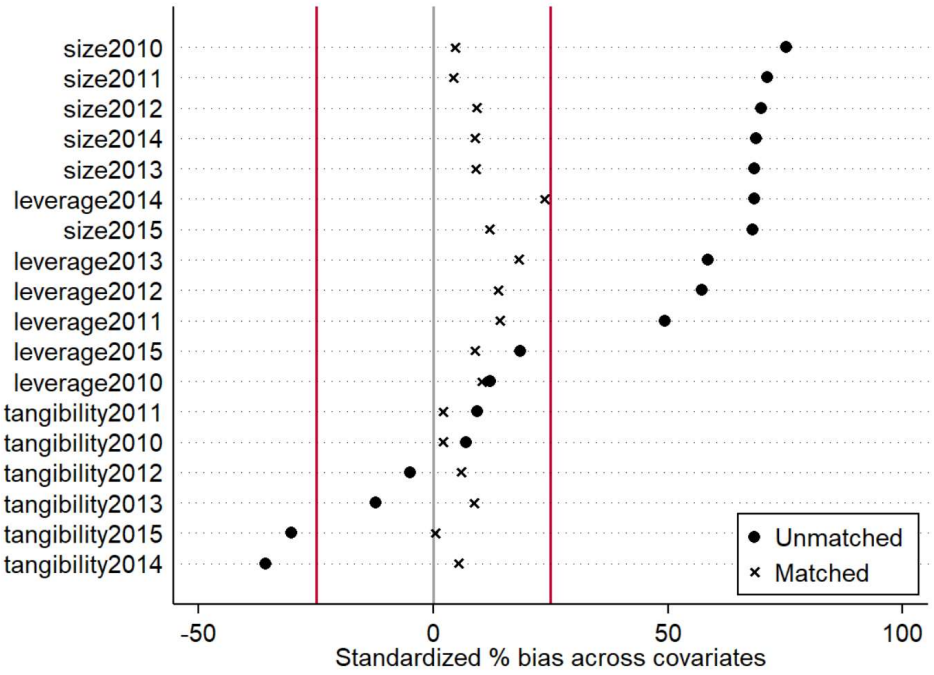


Table 6 presents the results of the DiD estimations in the matched sample. Models 1 to 4 show that the coefficient of the interaction between majority SOEs and the post period is positive and statistically significant in all specifications respectively with no fixed effects, with only year fixed effects, with year and firm fixed effects, and with all of them plus industry-year fixed effects (model 1: $\beta = 1.48$, $p < 0.05$; model 2: $\beta = 1.42$, $p < 0.05$; model 3: $\beta = 2.22$, $p < 0.05$; model 4: $\beta = 2.67$, $p < 0.10$). Although Model 5 shows no significance in the alternative interaction between majority SOE and the post 2016, Models 3 and 4 consistently corroborate the BLS effects on SOEs' ROA after 2017 and 2018 (model 6: $\beta = 2.56$, $p < 0.10$; model 7: $\beta = 2.19$, $p < 0.10$). Lastly, to run a time placebo check, we generated an alternative matched sample using 2013 as the pre-treatment time reference. Model 8 shows not statistically significant coefficients for the interaction between majority SOE and the fictitious post BLS period.

In conclusion, the robustness checks presented in this section are consistent with the main results and present strong support for our hypothesis.

Table 6: Panel data regression results for the matched samples.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Diff-in-Diff Interactions								
SOE_MAJ x BLS Implem. (2016-2018)	1.19	1.19	1.35	0.50				
	(1.06)	(1.06)	(1.27)	(1.44)				
SOE_MAJ x BLS_Post (2019-2023)	**1.48****	**1.42****	**2.22****	**2.67***				
	(0.66)	(0.67)	(0.93)	(1.34)				
SOE_MAJ x Post 2016					1.82			
					(1.17)			
SOE_MAJ x Post 2017						**2.56***		
						(1.31)		
SOE_MAJ x Post 2018							**2.19***	
							(1.22)	
Placebo Interactions								
SOE_MAJ x BLS Implem. Placebo (2013-2015)								-2.04**
								(0.92)
SOE_MAJ x BLS_Post Placebo (2016-2023)								-0.59
								(1.46)
Indep. and control variables								
SOE_MAJ	0.10	0.12	-2.71*	-4.19**	-3.71**	-4.20**	-3.87*	0.06
	(0.45)	(0.45)	(1.47)	(1.92)	(1.82)	(2.04)	(1.92)	(2.00)
BLS Implementation (2016-2018)	-0.88	5.77	5.10	7.18				
	(0.98)	(5.16)	(4.67)	(6.29)				
BLS Post (2019-2023)	-0.18	4.05	3.07	5.84				
	(0.58)	(3.59)	(3.23)	(5.26)				
Post 2016					6.28			
					(5.51)			
Post 2017						6.01		
						(5.37)		
Post 2018							5.92	
							(5.29)	
BLS Implem. Placebo (2013-2015)								7.22
								(14.78)
BLS_Post Placebo (2019-2023)								1.76
								(3.18)
Roa (one-year lagged)	0.61***	0.61***	0.42***	0.35***	0.36***	0.36***	0.36***	0.20***
	(0.05)	(0.05)	(0.09)	(0.11)	(0.10)	(0.11)	(0.11)	(0.07)
SOE_MIN	0.42	0.47	0.03	-0.48	0.06	-0.26	-0.42	-2.60**
	(0.75)	(0.77)	(1.59)	(2.76)	(2.80)	(2.75)	(2.82)	(1.05)
SOE_MAJ_FED	-0.47	-0.49	0.43	0.96	1.64	1.21	1.07	-0.73
	(0.70)	(0.69)	(2.17)	(3.18)	(3.23)	(3.19)	(3.24)	(1.73)
Political Ideology (Nat. Gov,)	0.07	-0.25	-0.17	0.74	0.73	0.74	0.74	-0.15
	(0.14)	(0.24)	(0.23)	(0.55)	(0.54)	(0.54)	(0.54)	(0.31)
Political Ideology (Subnat. Gov,)	0.08	0.08	0.16	0.32	0.27	0.26	0.29	0.10
	(0.12)	(0.11)	(0.17)	(0.20)	(0.19)	(0.18)	(0.18)	(0.20)
GDP Variation	0.05	1.16	1.17*	1.56	1.58	1.56	1.57	0.80
	(0.06)	(0.73)	(0.65)	(1.34)	(1.36)	(1.34)	(1.34)	(1.05)
Size	0.26***	0.26***	1.30	0.95	0.91	0.96	0.95	-1.35
	(0.09)	(0.09)	(1.23)	(2.06)	(2.08)	(2.05)	(2.08)	(1.77)
Leverage	-0.12***	-0.12***	-0.10***	-0.31	-0.34	-0.33	-0.32	-0.02
	(0.01)	(0.01)	(0.01)	(0.21)	(0.21)	(0.22)	(0.22)	(0.02)
Tangibility	-0.00	-0.00	-0.03	-0.00	0.00	-0.00	0.00	-0.05
	(0.01)	(0.01)	(0.04)	(0.02)	(0.03)	(0.03)	(0.02)	(0.03)
Constant	-1.58	-8.05	-10.53	-21.46	-21.11	-21.09	-21.27	5.95
	(1.35)	(5.29)	(10.13)	(17.79)	(18.04)	(17.74)	(17.86)	(12.86)
Observations	578	578	578	578	578	578	578	628
Groups	42	42	42	42	42	42	42	48
R-squared	0.48	0.49	0.55	0.72	0.72	0.73	0.72	0.71
Year FE	N	Y	Y	Y	Y	Y	Y	Y
Firm FE	N	N	Y	Y	Y	Y	Y	Y
Industry-Year FE	N	N	N	Y	Y	Y	Y	Y
Winsorized DV	Y	Y	Y	Y	Y	Y	Y	Y

Winsorized dependent variable.
Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

DISCUSSION AND CONCLUSION

This study presents robust evidence on the role of PCGCs to help the public sector to overcome long-standing and typical SOEs' governance challenges such as: principal-agent misalignment that implies deficient monitoring (Boardman & Vining, 1989; La Porta & López-de-Silanes, 1999); not clearly defined social and financial goals (Bai & Xu, 2005; Ramamurti, 1987); diversion of goals by politicians and politically connected executives for their own electoral or economic benefit (Shleifer, 1998; Shleifer & Vishny, 1994); soft budget constraints (Kornai, 1986; Lin & Tan, 1999); and complex public accountability (Aharoni, 1981; Seidman, 1954). Our empirical analysis shows that the financial performance of SOEs in Brazil became stronger after the implementation of the Brazilian Law of SOEs than it was prior to its enactment. This is especially relevant for PA scholarship because corporatized entities, such as SOEs, are intended to be as financially sustainable as possible in the provision of goods and services, and in the pursuit of public interests (Andrews, 2022; Andrews et al., 2020).

Our research shows that PCGCs can improve financial performance of SOEs in a given context by inducing SOEs' board of directors to control the behavior and performance of SOEs' executives more actively and independently. In general, PCGCs foster the implementation of a diverse set of mechanisms, such as: a minimum percentage of independent directors in the board; the creation of board committees on SOEs (e.g., audit and nomination); requirements for a clear definition of management goals and reporting; clear rules about transactions with related parties, especially with the controlling shareholder (i.e., the government); implementation of risk management and internal control practices in SOEs.

More importantly, PCGCs typically establish specific formal channels through which the state owner can define the public interests that should be pursued by SOEs, reducing the uncertainty about the tradeoffs between social and financial goals. They also restrict nomination and appointments of politicians and senior public officials as SOEs' directors and

executives, which contributes to reducing diversion of goals for electoral purposes. Lastly, a clearer legal and regulatory framework, enforceable by governmental audit and market oversight boards, helps to reduce conflicts between the government (controlling shareholder) and private investors (Young et al., 2008), as well as to temper the temptation of governments to intervene more fiercely in SOEs' management in times of economic recessions (Lazzarini & Musacchio, 2018) or due to political ideology inclination (Aguilera et al., 2021).

Our study contributes to the literature in several ways. From an agency theory perspective, we corroborate that PCGCs help corporatized PA entities, such as SOEs, to overcome typical agency conflicts (Dixit, 2002), whereas concurrently addressing democratic legitimacy and processes of political control and public administration oversight (Papenfuß & Wagner-Krechlok, 2023, p. 699). The study also confirms that specialized codes of governance can be effective in addressing specific characteristics of organization depending on ownership or controlling type (Cuomo et al., 2016; Zattoni & Cuomo, 2008).

Our empirical design includes important control variables that have not been considered in previous research on the topic (Coelho et al., 2024; Oliveira et al., 2020; Reddy et al., 2011), such as political ideology and GDP growth. Thus, we help to advance and disentangle the scarce and ambiguous empirical findings in the topic, while presenting a robust causality approach. By a neo-institutional prism, we expand the scholarly discourse on the role of a mandatory PCGC, understood as a formal and coercive institutional pressure, in inducing improvements on SOEs' financial performance. This finding is important especially for emerging countries contexts where oversight institutions are weaker and PA entities more likely to game voluntary regulations (Osemeke & Adegbite, 2016; Wanyama et al., 2009). Moreover, we expand the burgeoning strand of research about the diffusion and implementation of PCGCs (Coelho et al., 2024; Papenfuß & Wagner-Krechlok, 2023; Reddy et al., 2011).

The main limitation of our study is that it analyses the effects of the BLS only on listed SOEs and in a single country basis. Although we believe that this decision allows us to more accurately capturing the specific effects of the BLS, and not simply the implementation of other general governance and management practices common to all firms, further studies should include non-listed SOEs and a cross-national perspective.

Additionally, our empirical analysis was designed to capture the overall impact of the BLS, as a broad set of governance and management rules, on SOEs' financial performance. Moreover, we assume a reasonable level of compliance of SOEs with the BLS, although we did not test the heterogeneity in compliance. Thus, our design is not capable to identify what specific provisions of the BLS are more important and/or are driving more or less strongly the effects, nor the levels of compliance that suffice to induce financial performance improvements. Thus, it constitutes a limitation that should be further addressed by future studies.

Lastly, we did not examine the implications of the BLS on other dimensions of SOEs' performance, such as social and environmental performance, nor the impacts on the fulfilment of the public interests that justify the existence of SOEs. These topics constitute a promising avenue for further investigations.

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ARTICLE 2: FINANCIAL PERFORMANCE OF STATE-OWNED ENTERPRISES: DOES POLITICAL IDEOLOGY PLAY A ROLE?

ABSTRACT

Corporatization in the public sector entails decentralizing the provision of public goods and services to more autonomous entities, including state-owned enterprises (SOEs). Research indicates that the decision to corporatize is driven, among other factors, by the pursuit of financial sustainability in public organizations. A continuing debate revolves around whether the political ideology of incumbents is linked to the creation of SOEs. However, limited attention has been given to understanding if incumbents' ideology shapes SOEs' financial performance and, hence, financial sustainability. This is concerning because SOEs operate beyond political cycles, facing pressures from ideologically different governments over time. Herein, we investigate whether the incumbents' ideologies shape SOEs' financial performance. We hypothesize that the more right leaning the incumbent, the greater the SOEs' financial performance. However, given that incumbents' decisions are influenced by their political parties' goals and behaviors, the effects of ideology may be nonlinear. Thus, we investigate whether the association of incumbents' ideology with SOEs' financial performance is weaker when incumbents' political parties display non-policy behaviors (e.g., by prioritizing electoral outcomes or office occupation). We analyze a 2019–2022 panel of 317 SOEs controlled by 27 subnational governments in Brazil. The data comprising 1,116 SOE-year observations confirm our hypotheses. Our research contributes to scholarship on the drivers of public organizations' financial performance and sheds light on the role of political contingencies, such as incumbents' ideology and party predominant behaviors regarding SOEs' financial performance—a commonly overlooked gap in current research.

Keywords: Corporatization; State-Owned Enterprises; Financial Performance; Political Ideology.

INTRODUCTION

State-owned enterprises (SOEs) combine different levels of state and private ownership and control (Andrews et al., 2022; Grossi et al., 2015), as well as a diverse set of financial objectives and public interest goals. Public administration (PA) scholars highlight that governments, especially when faced with fiscal challenges, consider corporatization as a solution to alleviate public budgets, such as creating corporations to be as financially sustainable as possible (Lindlbauer et al., 2016; Rackwitz & Raffer, 2024). Therefore, financial performance is important for the corporatization phenomenon, driving the creation and proliferation of SOEs (Andrews et al., 2020). PA research has also explored the role of executive branch officials' political ideology as a contingency factor shaping corporatization (Alonso et al., 2022). Some scholars suggest that right-leaning ideologies are associated with more corporatization implemented through partnerships with the private sector (Alonso et al., 2022; Tavares & Camões, 2010). Conversely, others find no evidence of an association of ideology with corporatization (Andrews et al., 2020).

Despite acknowledging the role of financial sustainability as a determinant of corporatization and the role of political ideology as a potential contingency, research has only started to examine the connection between incumbents' political ideology and SOEs' financial performance (Aguilera et al., 2021). This underexplored topic is theoretically interesting because there is evidence that political ideology shapes private sector corporations' tradeoffs between financial and social goals (Briscoe et al., 2014; Gupta et al., 2017; Jiang et al., 2018). Therefore, there is theoretical reasons to expect that the same happens, perhaps even more strongly, in the case of SOEs, particularly when considering their public interest goals and shared ownership (Aguilera et al., 2021).

Furthermore, the gap is concerning because SOEs tend to operate beyond political cycles. Successive governments, with different executive branch compositions, tend to exert

distinct pressures on SOEs' financial performance over time, which may vary in terms of the strength and objectives according to their political ideologies. In this context, this study answers the following research question: Is incumbents' political ideology associated with SOEs' financial performance?

We anticipate that incumbents will be more or less prone to influence SOEs' management according to their views on the state's role in addressing economic and social issues. The more right leaning the incumbent, the greater the pressures on SOEs' financial performance. This is because the political right pursues less state intervention and places "lower emphasis on a welfare state" (Aguilera et al., 2021, p. 3), which leads them to focus on financial and economic outcomes in public organizations. Therefore, we hypothesize that the more right leaning the incumbent, the greater the SOEs' financial performance.

Additionally, incumbents' decisions are also potentially linked to their political parties' goals and behaviors (Wolinetz, 2002), which suggests that incumbents' ideologies might not be the only political contingency shaping SOEs' financial performance. When an incumbent's party predominantly presents non-policy behaviors (e.g., the party prioritizes the maximization of votes or the occupation of offices over the pursuit of its ideological goals), it is reasonable to expect that the strength of the ideological incumbent's influence on SOEs' financial performance will be affected. Therefore, our additional hypothesis is that when the incumbent's political party's behavior is not policy driven, the association between the incumbent's political ideology with SOEs' financial performance is weaker.

To test our hypotheses, we examine an unbalanced 2019–2022 panel of 317 SOEs of 27 Brazilian subnational governments (states)—a relevant context because of its trajectory of PA corporatization through the creation of SOEs. The 1,116 SOE-year observations are distributed across 18 industries. Our empirical setting benefits from the fact that Brazil is a federation with

significant political and ideological heterogeneity across state governments that also maintains legal and institutional uniformity.

The results of our empirical analysis confirm the hypothesized association between incumbents' political ideology and SOEs' financial performance, as well as the moderating role played by the incumbent's political party's behaviors. We use panel data analysis, including a comprehensive set of control variables and heteroskedastic errors, as well as industry and year fixed effects. In our main models, our dependent variable is operationalized as "Profit Before Subventions," which represents the financial performance of SOEs without any support from the government. The results hold with different robustness checks, such as: using a winsorized dependent variable; controlling for autocorrelation; using a restricted dataset with only SOEs that have non-negative equity and that are not being liquidated; and using alternative dependent variables, such as "Return on Equity" and "Return on Contributed Capital."

Our study makes important contributions to PA scholarship. We expand research about the financial performance of public organizations, such as SOEs (Aharoni, 1981; Vining et al., 2021), by evidencing that incumbents' political ideologies shape SOEs' financial performance. Our findings further extant scholarship, which has neglected the effects of incumbents' ideology on public sector organizations' financial performance during their life cycle, despite examining how political ideology is associated with public administration choices (e.g., contracting out, privatization, and corporatization). Furthermore, we shed light on a nonlinear pattern that has not been assessed in the PA literature: the incumbent party's non-policy behavior moderates the association of the incumbent's ideology with SOEs' financial performance. Our research is grounded in a consolidated political science typology of political parties' behaviors (Muller & Strom, 1999; Strom, 1990; Wolinetz, 2002). Neglecting the importance of this political contingency variable—generally overlooked in current empirical

studies that assume linear effects—may hinder our understanding of the effects of ideology on public administration outcomes.

The remainder of this paper is organized as follows: Section 2 presents the underlying theoretical background and hypotheses development; Section 3 describes the dataset used in the empirical analysis of the hypotheses and the methods employed in the empirical strategy; Section 4 describes the results of the econometric models and the robustness checks; and Section 5 discusses the findings and presents the conclusions, including the final remarks, contributions, and limitations of the study.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

SOEs are becoming increasingly relevant social and economic providers around the globe in both developed and developing countries (OECD, 2017) and at national and subnational levels (Andrews et al., 2022). In recent years, SOEs' presence is also spreading out across levels of government, especially at the European local level, in the context of the ongoing corporatization phenomenon in public administration (Alonso et al., 2022; Andrews et al., 2020, 2022; Berge & Torsteinsen, 2022; Da Cruz & Marques, 2012). Consequently, although the study of SOEs is not a novelty (Rubin, 1988; Seidman, 1954), PA scholars have increasingly devoted attention to it (Aars & Ringkjøb, 2011; Bernier & Hafsi, 2007; Vining et al., 2021).

Among other reasons why governments corporatize, PA research highlights that governments faced with fiscal challenges seek solutions that have the potential to alleviate public budgets, such as creating corporations intended to be as financially sustainable as possible (Andrews et al., 2020; Lindlbauer et al., 2016; Rackwitz & Raffer, 2024). For instance, an SOE—as a type of PA corporation—can raise its own revenues and partner with the private sector to operate and invest without overburdening the public budget (Tavares & Camões, 2010). SOEs can also benefit from the private sector's expertise and flexibility in providing

goods and services more efficiently (Da Cruz & Marques, 2012). Therefore, although SOEs have different public and social purposes that justify their existence, financial performance is an important factor for the corporatization phenomenon, which leads to the creation and proliferation of SOEs.

In this context, PA scholars show that corporatized entities such as SOEs lead to better efficiency in the provision of public goods and services in comparison to their typical public sector counterparts, such as governmental departments and executive agencies (Lindlbauer et al., 2016; Voorn et al., 2017, 2022). The main reason is that corporatization makes the new entities more autonomous from politics, which is replaced to a certain degree by professionalism (Bourdeaux, 2008). Moreover, corporatization may reduce agency costs, better align with the interests of the different stakeholders, and foster flexibility in decision-making, which generates efficiency gains (Lindlbauer et al., 2016). Nevertheless, it has been found that corporatized PA has high failure rates, such as the dissolution of the entity (Andrews, 2022; Voorn et al., 2017), which are associated with the levels of political control exercised by governments (Andrews, 2022). In addition, political connectedness negatively affects the performance of these entities (Menozzi et al., 2012). Thus, the PA literature agrees that corporatization does not completely shield public entities from political interference and therefore highlights the importance of political variables in shaping SOEs' performance.

A robust body of management, finance, and economic literature indicates that SOEs are more likely to have lower financial performance than similar firms owned exclusively by the private sector because they are subject to political pressures that shape the tradeoffs between their financial and non-financial objectives. State ownership leads SOEs to pursue social welfare and/or industrial policy purposes in addition to financial objectives, which impairs profitability (Bai & Xu, 2005; Shirley & Nellis, 1991). Additionally, SOEs' managers tend to pursue political objectives and consequently divert organizational resources and/or outcomes

to the detriment of efficiency and financial performance (La Porta & López-de-Silanes, 1999; Shleifer, 1998; Shleifer & Vishny, 1994). These diverse research findings reaffirm the relevance of political factors in determining SOEs' outcomes.

Nonetheless, empirical evidence on how political ideology is associated with SOEs' creation or financial performance is still scarce in the PA literature (Andrews et al., 2020). Political ideology can be understood as an interrelated set of attitudes, behaviors, and values about the goals of society and how they should be achieved, and is commonly portrayed as a left–right continuum (Aguilera et al., 2021). Thus, it is expected that incumbents' ideologies may shape their decisions about the tradeoffs between public sector organizations' financial and social goals. A few PA studies indicate that right-leaning incumbents tend to partner with the private sector when creating SOEs (e.g., by establishing specific purposes mixed SOEs) more often than their left-leaning counterparts (Alonso et al., 2022; Tavares & Camões, 2010). However, these studies are limited to analyzing the role of political ideology within the realm of the corporatization decision, neglecting the effects of ideology over the life cycle of the corporatized entity. This is concerning because SOEs tend to operate beyond political cycles. Successive governments with different executive branch compositions tend to exert distinct pressures on SOEs' financial performance over time, which may vary in terms of strengths and objectives according to their political ideologies.

This gap in the PA literature is also theoretically instigating because management research suggests that political ideology shapes private corporation's tradeoffs between financial and social goals. Jiang et. al. (2018) found that firm managers in China who hold a more left-leaning political ideology (i.e., those who are stronger in their socialist position) are more likely to support corporate socially responsible activities in their firms, while those with a less left-leaning ideology are more likely to pursue financial outcomes. In a similar vein, Xu et al. (2021) show that more liberal U.S. firms have stronger corporate social performance than

conservative ones. The rationale is that left-leaning managers tend to exhibit more concern and care about environmental and social issues (Murtha & Lenway, 1994), hence they typically steer their firms toward more socially responsible activities (Briscoe et al., 2014; Xu et al., 2021). In this context, there is no reason to expect that SOEs would be an exception, particularly when considering their public interest goals and shared ownership.

We contend that incumbents' political ideology matters for SOEs' strategic choices about the tradeoffs between financial objectives and public interest goals. First, when the state is the majority shareholder of an SOE, the incumbents will appoint the majority of its directors and executives (OECD, 2017). Incumbents "may prefer managers and directors similar to themselves in terms of political ideology" (Aguilera et al., 2021, p. 3) and may also "be tempted to appoint politicians or politically connected executives as CEOs" (Musacchio et al., 2015, p. 120). Thus, when incumbents are left leaning, they will tend to appoint more left-leaning executives. Conversely, when incumbents are right leaning, they will more likely appoint more right-leaning executives.

Second, the political left is considered more prone to supporting state intervention in economic and social issues, and striving for "political ideals like egalitarianism, a fair distribution of wealth and income, and the enactment and maintenance of a welfare state" (Aguilera et al., 2021, p. 3), which may lead to a lower emphasis on public organizations' financial outcomes. Thus, it is reasonable to expect a left-leaning incumbent to be more likely to pressure SOEs' managers to focus more fiercely on public interest goals than on financial performance (Briscoe et al., 2014; Jiang et al., 2018; Murtha & Lenway, 1994; Xu et al., 2021). Conversely, the political right pursues less state intervention, and places "lower emphasis on a welfare state" (Aguilera et al., 2021, p. 3), which may lead to focusing more on financial and economic outcomes in public organizations.

Corroborating this line of reasoning, empirical evidence in PA research shows that English "left-wing controlled local governments exhibit a marked aversion to private sector involvement in service provision and a clear preference for in-house service provision" (Alonso & Andrews, 2020, p. 743). Furthermore, Spanish "right-wing controlled regional governments exhibit a clear preference for corporatization strategies that actively involve the private sector, such as Public–Private Partnerships and Public Finance Initiatives" (Alonso et al., 2022). Portuguese local governmental evidence suggests that ideological concerns drive local governance structure choices (Tavares & Camões, 2010). These findings are not unanimous, because another study finds that "systemic entrepreneurial activity within English local governments does not depend on left-wing or right-wing political control" (Andrews et al., 2020, p. 482). Nevertheless, this evidence indeed indicates that political ideology may play a role in shaping the decision-making process that leads to corporatization (e.g., creation of SOEs). Hence, there is reason to expect that incumbents' ideologies may shape the financial and non-financial performance of corporatized entities over their life cycle (Aguilera et al., 2021; Menozzi et al., 2012) such as SOEs. In this context, our first hypothesis is:

> ***H1****: The more right leaning the incumbent, the greater the SOEs' financial performance.*

However, the association between the incumbent's political ideology and SOEs' financial performance may be nonlinear, which might partly explain the abovementioned inconsistent findings. Incumbents' decisions are often intimately linked to their political parties' goals and behaviors (Wolinetz, 2002). Given that parties are systematically involved in electoral competition and coalition formation (Muller & Strom, 1999), the pressures exerted by them on incumbents' decisions reflect not only ideological traits, but also parties' actual goals and behaviors in the political arena. These pressures exist because incumbents' decisions are influenced by elected party officials or by those under their control. Public officials are

commonly recruited through political parties, which also hold them accountable (Muller & Strom, 1999).

According to a typology adopted in the political science field (Strom, 1990), there are three broad categories of political parties that differ from each other in terms of their predominant types of goals and behaviors. The first category—the policy-seeking party—aims to maximize its role in the definition and implementation of public policies. Policy-driven goals may imply that parties take stronger policy positions and exert pressures more fiercely on specific policy dimensions over their incumbents (Muller & Strom, 1999; Wolinetz, 2002). The second category—the office-seeking party—in turn, pursues control over political offices (Strom, 1990). This kind of party behavior is explained by the fact that "a party might strive to capture executive office because its leaders simply want the spoils (perquisites)" or because "they think they can gain favor with the voters by exploiting the advantages of incumbency." (Muller & Strom, 1999, p. 6) Potential office benefits also include "government contracts, preferential treatment, and whatever other rents accrue to political parties" (Muller & Strom, 1999, p. 6). Finally, the third category—the vote-seeking party—wants to maximize its electoral support to control the government (Strom, 1990; Wolinetz, 2002).

Although these three main categories of behaviors and goals may coexist and even be instrumental within a single party (Muller & Strom, 1999), it is common that one or two of them evolve to be more salient than the others, shaping in different ways both the parties' behaviors and the pressures they exert over incumbents (Bolognesi et al., 2023; Strom, 1990). Consequently, we expect that the association of incumbents' political ideology with SOEs' financial performance will be stronger or weaker depending on the predominant types of goals and behaviors of each incumbent's party.

Political parties that are more policy driven tend to prioritize their ideological beliefs and values and to be less likely to compromise them (Wolinetz, 2002). Conversely, political

parties that are more focused on non-policy goals (e.g., maximization of votes, office, or both) tend to be more flexible with their ideological traits (Wolinetz, 2002). Consequently, we can expect that the hypothesized influence exerted on SOEs' financial performance by the political ideology of the incumbent whose political party's predominant behavior is not policy driven may be lower than those pressures exerted by a similar ideological counterpart whose party's predominant behavior is policy driven. In this context, our second hypothesis is:

> ***H2:*** *When the incumbent's political party's behavior is not predominantly policy driven, the association between the incumbent's political ideology with SOEs' financial performance is weaker*.

DATA AND METHODS

Sample

To test our hypotheses, we analyzed a dataset composed of 317 Brazilian SOEs controlled by 27 subnational governments (states). The unbalanced panel spans 2019–2022 and includes 1,116 SOE-year observations. We focus on Brazil because its political and administrative organization as a federative state is unique and valuable for our topic. Brazil is a democratic country with regular elections since 1988, which provides heterogeneity in terms of the political ideologies of its incumbents at the subnational level. Although the dataset is from a single country, it allows for comparison of the effects of heterogeneous political ideology on SOEs owned by different governments within the same broader national institutional-legal framework. Brazil also fits with our purpose because SOEs have been traditionally used by governments to pursue public interest goals or foster development.

Moreover, given that extant research on corporatization and SOEs is almost predominantly based on European single-industry empirical settings (Alonso et al., 2022; Andrews et al., 2020; Berge & Torsteinsen, 2022; Da Cruz & Marques, 2012; Rackwitz & Raffer, 2024; Tavares & Camões, 2010), our results enrich the literature because they present

an emerging Latin American economy's context and include SOEs on a multi-industry perspective (18 different industries).

Data on SOEs used in this research were obtained from the Brazilian National Treasury Secretariat's website and refers to a survey conducted by the federal government about state-level SOEs in Brazil in which each Brazilian state provided annual information about its own SOEs (2018–2022) (Brazil, 2022).

Dependent Variables

Our main measure of financial performance is operationalized as the SOEs' annual profit before any subventions received from the government ("Profit Before Subvention"—PBS). This indicator represents the actual annual financial outcome achieved by the SOE without any financial support from the government. It is calculated as net income minus subventions.

We also use two additional dependent variables as robustness checks. The first is the "Return on Equity" (ROE), calculated as PBS divided by "Total Equity." ROE is a measure of profitability extensively used in management and finance research to assess the financial performance of firms. The second is "Return on Contributed Capital" (RCC), calculated as PBS divided by "Contributed Capital." These two alternative dependent variables allow us to check whether the results of our estimations hold for different measures of SOEs' financial performance. The reason for not using these two alternative variables as our main dependent variables is that they have fewer observations (respectively, 897 and 538 observations) than the PBS. Nonetheless, they serve as important robustness checks.

Independent Variable

We operationalize the incumbent's political ideology by using the position of the government executive branch chief's political party in a left–right continuum (Aguilera et al., 2021), at the moment of taking office (eventual party changes during the term were analyzed

individually). As Bolognesi et al. (2023) highlight, “the differentiation of political parties between left and right is often based on their stance on the unidimensional role of state intervention in the economy... and the defense of social equality as a natural or constructed phenomenon” (p. 4). Prior literature also classifies Brazilian political parties on a left–right continuum (Power & Zucco, 2009; Tarouco & Madeira, 2015; Zucco, 2011).

We adopt Bolognesi et al.’s (2023) ideological classification of Brazilian political parties for three main reasons. First, their study was developed in the same time horizon as the data in our dataset. Second, its overall left-to-right ordering of parties’ ideologies is in line with other studies on Brazilian parties (Power & Zucco, 2009; Tarouco & Madeira, 2013, 2015; Zucco, 2011), despite some differences attributable to time and methods employed in each study. Third, it is based on a survey of experts with strong credentials in assessing parties’ ideologies (Benoit & Laver, 2006).

Bolognesi et al. (2023) developed a 0–10 scale to classify political parties according to their ideologies: far-left, 0–1.5; left, 1.51–3; center-left, 3.01–4.49; center, 4.5–5.5; center-right, 5.51–7; right, 7.01–8.5; and far-right, 8.51–10. As our main dependent variable (“Political Ideology”), we use the ideology scores in our main models, instead of these categories.

Additionally, we also grouped both the first and last quartiles of observations found in the Political Ideology variable to create, respectively, “Lower quartile (more left leaning)” and “Upper quartile (more right leaning)” dummy variables. By grouping observations in which the governments are more left or right leaning, we can more accurately distinguish the effects of each type of ideology. We then use these dummies as a different approach for the independent variable.

We manually searched governmental websites to find the political party affiliations of executive branch chiefs of subnational (state) governments during 2010–2022. The main source of information was the Brazilian Electoral Court website, that publishes the elections results.

Subsequently, we matched them with Bolognesi et al.'s (2023) political ideology scores and included them as a numeric variable (Political Ideology) in our dataset.

Moderating Variable

We retrieved our moderating variable also from Bolognesi et al.'s study (2023), which identified the three categories of behaviors of Brazilian political parties in 2018: policy-seeking, office-seeking, or vote-seeking behaviors. Following a model proposed by Muller and Strom (1999) and Wolinetz (2002), Bolognesi et al. (2023) presented a figure with a triangle for each of the political parties in Brazil that showed their typical behaviors. Each category of behavior (policy-, office-, or vote-seeking) was illustrated within a scale represented from the center of the triangle toward each of its vertices. By visualizing the triangles, we coded a dummy variable ("Non-Policy") that received a "1" whenever the party did not display a very high level of policy-seeking behavior (independently of the other types of behaviors). That is, if the party has a low or a moderate policy-seeking behavior, it was coded as "Non-Policy". This was accomplished by checking in the triangles of Bolognesi et al.'s (2023) study whether policy-seeking behavior scored clearly high, near the correspondent vertex of the party's triangle.

Control Variables

Table 1 presents details of and reasons for using the control variables in our models. We also implemented dummy variables that serve as controls for industry and year fixed effects.

Econometric Design

The econometric model to test our hypotheses is specified as follows (Equation 1):

$$DV_{it} = \beta_1 POL\_IDEO_{it} + \beta_2 NONPOLICY_i + \beta_3 POL\_IDEO_{it}\ X\ NONPOLICY_i + \delta^k CONTROLS + \alpha + \mu + \varepsilon_{it} \quad (1)$$

where DV_{it} stands for the dependent variable (*PBS*, *ROE*, or *RCC*) of SOE *i* at time *t*; POL_IDEO_{it} indicates the political ideology of the incumbent in a state that is the owner of SOE *i* at time *t*; $NONPOLICY_i$ is a dummy variable indicating whether the SOE *i* is owned by a government whose incumbent's party's behavior is non-policy driven; δ is a vector of

coefficients for the different control variables of the study (k is the number of control variables); *CONTROLS* is a vector of control variables; α and μ respectively represent industry and year fixed effects; and ε_{it} is the error term.

Table 3: Control Variables Used in Econometric Models

Variable	Description	Source	Reason for use
Mixed SOE	Dummy variable indicating whether the SOE is a mixed company or 100% owned by the state	STN	The presence of private capital in the SOE may affect its financial performance. Moreover, being listed in stock exchanges implies more robust corporate governance mechanisms, control, and transparency, which may affect performance (Aguilera et al., 2021; Andrews et al., 2020; Bruton et al., 2015; Lazzarini & Musacchio, 2018; Vining et al., 2021).
Listed SOE	Dummy variable indicating whether the SOE is listed in a Stock Exchange	STN	
Equity	The total equity of the SOE (in R$ millions)	STN	The size of the SOE may affect its financial performance (Aguilera et al., 2021; Lazzarini & Musacchio, 2018).
Number of Employees	Number of SOE employees	STN	
Financially Independent SOE	Dummy variable indicating whether the SOE is formally recognized by the government as being independent on governmental subventions	STN	Being formally recognized as dependent on governmental subventions may intensify the soft budget constraints effects that are typical for SOEs (Kornai, 1986), and ultimately impact financial performance.
SOE in Termination	Dummy variable indicating whether the SOE is being terminated/liquidated by the government	STN	Liquidation in progress may affect financial performance of the SOE.
Audit Committee	Dummy variable indicating whether the SOE has an Audit Committee	STN	Governance mechanisms and internal controls are associated to SOEs' financial and non-financial performance (Bruton et al., 2015; Calza et al., 2016; Grossi et al., 2015; Khan et al., 2013).
State Fiscal Situation	The ratio between the State's primary *superavit* and its net current revenues	STN	The fiscal situation of the states and its dependence on Federal transfers, along with the socio-economic conditions under which the population lives, may affect the temptation of governments to intervene in SOEs' management and ultimately affect their tradeoffs between social and financial performance (Andrews et al., 2020; Lazzarini & Musacchio, 2018).
State Dependence on Federal Transfers	The percentage of the State's revenue that does not refer to Federal transfers (ratio of the own State's revenues)	STN	
State Human Development Index	Indicates the State's Human Development Index (HDI)	IpeaData	
State Population	The number of inhabitants in the state (in millions)	IpeaData	The size of the state may be associated with the state capacity and ultimately affect financial and non-financial performance of SOEs (Aguilera et al., 2021; Alonso et al., 2022; Bruton et al., 2015; Lazzarini & Musacchio, 2018).

RESULTS

Table 2 presents the descriptive statistics and pairwise correlations for the variables used in our econometric models. None of the correlations among independent, moderating, and/or control variables exceeds 0.75. As shown in Table 3, the observations of the dataset refer to SOES managed by incumbents from parties with thirteen different political ideology scores. The Lower Quartile (more left leaning) has 315 observations, of which 151 are from a party classified as non-policy, whereas the Upper Quartile (more right leaning) has 378 observations of which 309 are from four parties classified as non-policy. Given the size and characteristics of the dataset, to test if multicollinearity is an issue, we calculated the VIF after estimating the main model with OLS with industry and year effects. All variables have a VIF smaller than 20 and the mean VIF is 2.69

Table 4: Descriptive Statistics and Correlations

Variables	Mean	Std. Dev.	Min.	Max.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) PBS	24.27	480.42	−4719.91	5048.60	1.00												
(2) Pol. Ideology	6.51	1.96	1.92	8.57	0.05	1.00											
(3) Non-Policy	0.67	0.47	0	1	-0.08	0.39	1.00										
(4) Mixed SOE	0.68	0.47	0	1	0.15	-0.01	0.04	1.00									
(5) Listed SOE	0.03	0.18	0	1	0.46	0.09	-0.04	0.13	1.00								
(6) Equity	762.15	3080.83	−7977.26	35306.45	0.39	0.01	-0.13	0.00	0.43	1.00							
(7) Indep. SOE	0.56	0.50	0	1	0.23	0.02	-0.12	0.25	0.17	0.18	1.00						
(8) SOE in Term.	0.12	0.33	0	1	-0.12	0.12	0.12	0.00	-0.07	-0.10	-0.17	1.00					
(9) Audit Comm.	0.38	0.49	0	1	0.21	-0.01	-0.25	0.07	0.23	0.29	0.43	-0.27	1.00				
(10) # Employees	0.86	2.56	0	28109	0.21	0.05	-0.19	-0.02	0.39	0.46	0.15	-0.12	0.32	1.00			
(11) Fiscal Situation	0.07	0.06	−0.15	0.3	0.02	0.23	0.05	-0.05	0.00	0.09	0.00	0.11	-0.05	0.04	1.00		
(12) Dep. Transfers	0.69	0.15	0.27	0.94	0.02	0.28	-0.16	-0.06	0.13	0.18	0.17	0.04	0.17	0.15	0.20	1.00	
(13) State HDI	0.76	0.04	0.68	0.86	0.03	0.32	0.04	-0.11	0.15	0.14	0.19	0.01	0.21	0.10	0.02	0.51	1.00
(14) State Pop.	10087.67	10668.98	540	46991	0.02	0.02	-0.37	-0.23	0.09	0.32	0.14	-0.02	0.22	0.23	0.20	0.65	0.42

Table 5: Tabulation of Political Ideology Scores and Non-Policy

	Non-Policy		
Political Ideology Scores	**No**	**Yes**	**Total**
1.92	**5**	**0**	**5**
2.97	**141**	**0**	**141**
3.92	**18**	**0**	**18**
4.05	**0**	**151**	**151**
7.01	0	163	163
7.09	0	84	84
7.11	130	0	130
7.78	0	46	46
8.11	**0**	**107**	**107**
8.13	**69**	**0**	**69**
8.2	**0**	**41**	**41**
8.33	**0**	**61**	**61**
8.57	**0**	**100**	**100**
Total	363	753	1,116

Models 1–4 of Table 4 present our main panel data feasible generalized least square (FGLS) regressions results. Model 1 shows that the coefficient of our main independent variable (Political Ideology—scale) is positive and significant (Model 1: $\beta = 3.12$, $p < 0.01$). That is, the greater the political ideology score of the government (i.e., the more right leaning it is), the greater the SOEs' financial performance, as measured by "Profit Before Subventions." This result is corroborated by the coefficient of the Upper Quartile (more right leaning) dummy variable in Model 3, which is also positive and significant (Model 3: $\beta = 25.38$, $p < 0.01$). In other words, when the incumbent's ideology score is in the fourth quartile of the Political Ideology variable (nearer the right-leaning extreme of the ideology continuum), the greater the Profit Before Subventions. The coefficient of the Lower Quartile (more left-leaning) dummy variable in Model 2 is negative, but not significant.

Model 4 of Table 4 shows a negative and significant coefficient for the interaction term between the incumbent's political ideology and their party's non-policy behavior (Model 4: $\beta = -14.01$, $p < 0.01$). It is worth noting that, even in this model that include the interaction terms, the coefficient of the "Political Ideology" (scale) variable remains significant and positive.

All of these results remain unchanged and clear in Models 5, 6, and 7, which include important robustness checks. As a corporation's financial performance shows a tendency to persist over time (Roberts & Dowling, 2002), we include in Model 5 a specification that controls for panel-specific autocorrelation. In Model 6, we winsorize the Profit Before Subvention variable with 5% at both extremes to minimize the possibility of the results being driven by specific outliers. Finally, in Model 7 we run the estimation on a restricted dataset that excludes all SOEs with negative equity and that are currently in liquidation (termination).

Table 6: FGLS Regression Results for the Main Dependent Variable

	Main Specifications				**Robustness Checks**		
DV = Profit Before Subvention (R$ millions)	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Political Ideology (scale)	**3.12*****			**11.46*****	**10.78*****	**5.17*****	**19.95*****
	(1.03)			(2.95)	(2.62)	(0.72)	(3.44)
Lower Quartile (more left leaning dummy)		-4.95					
		(3.84)					
Upper Quartile (more right leaning dummy)			**25.38*****				
			(4.25)				
Non-Policy Party Behavior	-38.86***	-36.37***	-32.83***	45.56***	26.72**	40.45***	81.64***
	(4.99)	(4.65)	(5.08)	(13.45)	(12.97)	(4.34)	(14.63)
Political Ideology (scale) X Non-Policy				**-14.01*****	**-13.00*****	**-8.68*****	**-23.80*****
				(3.27)	(2.99)	(0.90)	(3.73)
Mixed SOE	5.14	5.86	-1.03	4.84	-9.31*	9.15***	13.26***
	(4.50)	(4.89)	(4.19)	(4.61)	(4.82)	(1.52)	(4.53)
Listed SOE	596.91***	603.59***	555.41***	564.86***	601.17***	154.53***	635.92***
	(57.84)	(55.59)	(64.04)	(65.96)	(91.98)	(17.67)	(69.55)
Equity	0.05***	0.05***	0.05***	0.06***	0.04***	0.01***	0.04***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Financially Independent SOE	29.47***	26.50***	30.14***	24.76***	31.89***	24.44***	26.00***
	(4.34)	(4.42)	(4.51)	(3.84)	(3.75)	(1.35)	(3.67)
SOE in Termination	-1.10	0.64	-11.16*	3.68	-2.07	7.13***	
	(5.85)	(5.61)	(6.20)	(7.54)	(5.42)	(1.82)	
Audit Committee	8.39**	10.66***	7.34*	7.04**	6.02**	20.21***	10.34***
	(3.78)	(3.88)	(4.43)	(3.57)	(2.67)	(1.62)	(3.73)
Number of Employees	-0.08	-0.62	-0.89	-0.87	1.39	1.29	-1.16
	(2.49)	(2.55)	(2.49)	(2.82)	(3.64)	(0.87)	(2.76)
State Fiscal Situation	58.56*	77.44**	-1.31	-2.13	-54.98***	6.38	-31.84
	(32.01)	(32.02)	(34.78)	(32.51)	(17.68)	(8.14)	(24.58)
State Dependence on Federal Transfers	16.94	22.77	3.65	33.06**	131.56***	10.81**	100.68***
	(15.38)	(15.83)	(17.80)	(16.65)	(13.57)	(4.96)	(21.35)
State Human Development Index	-125.33***	-96.49**	-62.79	-121.42***	-146.59***	29.81**	-163.30***
	(42.91)	(42.90)	(48.21)	(40.84)	(31.96)	(14.45)	(49.68)
State Population	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	97.43***	88.45***	66.52**	46.53	44.41*	-49.85***	9.97
	(29.65)	(32.10)	(33.84)	(29.62)	(25.50)	(10.19)	(33.09)
Observations	1,116	1,116	1,116	1,116	1,105	1,116	836
Number of Groups	317	317	317	317	306	317	252
Control for Autocorrelation Structure (AR1)					Y		
Winsorized DV (5% at both tails)						Y	
Restricted Dataset							Y

Standard errors in parentheses. All models are estimated with sector and year fixed effects. *** p<0.01, ** p<0.05, * p<0.10

The consistency of the results is corroborated even when we use alternative dependent variables. Although the coefficient of political ideology is not significant when the DV is ROE in Model 1 of Table 5, it is significant when the DV is ROCC (Model 3: $\beta = 0.14$, $p < 0.01$). The interaction term is significant for both alternative dependent variables (Model 2: $\beta = -0.08$, $p < 0.01$; Model 4: $\beta = -0.27$, $p < 0.01$)

Therefore, our results support H1 and empirically demonstrate that the more right leaning the incumbent's ideology, the greater the SOEs' financial performance. The results supported that the association between incumbents' political ideology with SOEs' financial performance is weaker when the incumbent's party's behavior is not policy driven (H2).

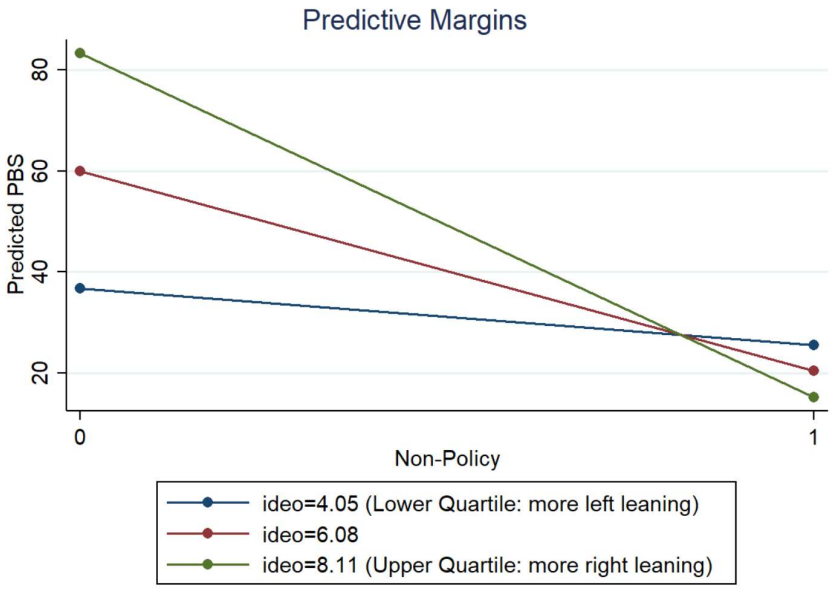
Table 5: FGLS Regression Results for the Alternative DVs

	DV = ROE		**DV = ROCC**	
	Model 1	Model 2	Model 3	Model 4
Political Ideology (scale)	0.00	**0.03****	**0.14*****	**0.41*****
	(0.01)	(0.02)	(0.03)	(0.06)
Non-Policy Party Behavior	0.04	0.46***	-0.00	1.58***
	(0.04)	(0.12)	(0.12)	(0.36)
Political Ideology (scale) X Non-Policy Party Behavior		**-0.08*****		**-0.27*****
		(0.02)		(0.06)
Mixed SOE	0.27***	0.21***	1.00***	1.31***
	(0.04)	(0.04)	(0.16)	(0.16)
Listed SOE	0.02	0.06	-0.21	-0.63***
	(0.06)	(0.07)	(0.23)	(0.16)
Equity	-0.00	-0.00	0.00**	0.00***
	(0.00)	(0.00)	(0.00)	(0.00)
Financially Independent SOE	0.94***	0.83***	1.18***	1.57***
	(0.06)	(0.06)	(0.14)	(0.13)
SOE in Termination	0.09*	0.22***	0.50***	0.60***
	(0.05)	(0.04)	(0.17)	(0.18)
Audit Committee	0.15***	0.24***	0.24**	0.14
	(0.04)	(0.03)	(0.11)	(0.09)
Number of Employees	0.01***	0.00	-0.07*	-0.11***
	(0.00)	(0.00)	(0.04)	(0.02)
Fiscal Situation	0.62*	0.81**	2.43**	6.37***
	(0.35)	(0.34)	(1.07)	(0.75)
State Dependence on Federal Transfers	-0.58***	-0.53***	0.80*	1.19***
	(0.16)	(0.15)	(0.42)	(0.35)
State Human Development Index	1.48***	1.27***	-0.61	-1.63**
	(0.37)	(0.37)	(0.95)	(0.81)
State Population	0.00***	0.00	0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Constant	-1.99***	-1.79***	-3.13***	-4.52***
	(0.26)	(0.29)	(0.70)	(0.65)
Observations	897	897	538	538
Number of Groups	277	277	287	287

Standard errors in parentheses. All models are estimated with sector and year fixed effects.
The alternative DVs are winsorized at 5% at both tails.
*** p < 0.01, ** p < 0.05, * p < 0.10

Figure 2 vividly illustrates the association between the incumbent's political ideology and SOE financial performance, as well as the moderating effect of a non-policy behavior of the incumbent's party. As shown, the positive difference in SOEs' financial performance when incumbents are more right leaning vanishes when the party's behavior is concomitantly not policy driven.

Figure 1: Predictive Margins



DISCUSSION AND CONCLUSIONS

This paper contributes to the burgeoning scholarship on the impact of political contingencies on the decisions and performance of public sector organizations (Alonso et al., 2022; Alonso & Andrews, 2020; Andrews, 2022; Menozzi et al., 2012; Tavares & Camões, 2010). This is a relevant topic because public organizations are typically designed to operate beyond political cycles. Successive governments with different executive branch compositions tend to exert distinct pressures on public organizations' performance over time according to their political ideologies, which may vary in terms of strengths and objectives. We address this topic by exploring how incumbents' political ideologies and parties' objectives shape SOEs' financial performance once they are created.

We hypothesized and empirically demonstrated that incumbents' political ideology is associated with SOEs' financial performance. Consistently with previous research, the results show that the more right-leaning the incumbent's political ideology, the greater the SOEs' financial performance (Aguilera et al., 2021). We also shed light on the role of an important political contingency that makes this association nonlinear: the incumbent's political ideology

and SOEs' financial performance association is moderated by the incumbent's party's behavior. For example, the results show that a more right-leaning incumbent whose party's behavior is not policy driven may exert lower pressures on SOEs' financial performance than a similar right-leaning counterpart whose political party's predominant behavior is, instead, policy driven. The reason is that, while right-leaning ideologies may imply policy preferences linked to better financial performance in public organizations like SOEs, the impact is less perceptible when the incumbent's party displays non-policy goals (e.g., prioritizing maximization of votes or occupation of offices rather than policy outcomes).

It is imperative to emphasize that SOEs' performance should not be evaluated only in terms of its financial dimension. SOEs are inherently intended to pursue public interests, social objectives or economic development goals. Thus, in certain occasions, an increased financial performance is not the main objective. A thorough appreciation of the whole performance of SOEs should also include the effectiveness in pursuing their public interests' goals. However, based on the assumption that SOEs strive to be as financially sustainable as possible (Andrews et al., 2020; Lindlbauer et al., 2016), we believe that understanding the main determinants of financial performance, such as the political ideology of incumbents, is of scholarly interest.

In this context, our findings altogether have important implications for theory and policy. We expand a long-standing stream of research about the financial performance of public organizations, such as SOEs (Aharoni, 1981; Ramamurti, 1987; Shleifer & Vishny, 1994; Vining et al., 2021), by suggesting that incumbents' political ideologies shape SOEs' financial performance. This finding constitutes a relevant advancement in extant scholarship that has neglected the effects of the incumbent's ideology on public sector organizations' financial performance, despite examining how political ideology is associated with public administration choices (e.g., contracting out, privatization and corporatization) (Alonso et al., 2022; Alonso & Andrews, 2020; Tavares & Camões, 2010).

Furthermore, grounded in a consolidated political science typology of political parties' goals and behaviors (Muller & Strom, 1999; Strom, 1990; Wolinetz, 2002), we shed light on a nonlinear pattern that had not been previously grasped in PA literature: an incumbent's political party's non-policy behavior moderates the association of the incumbent's ideology with SOEs' financial performance. This finding constitutes a possible explanation for the difficulty in reaching a consensus on whether and how political ideology shapes public organizations' decisions and performance (Andrews et al., 2020). Neglecting the importance of this political contingency—generally overlooked in current empirical studies that assume linear effects—may hinder the effects of political ideology on public administration outcomes.

Finally, given that extant research on corporatization and SOEs is almost exclusively based on European single-industry empirical settings (Alonso et al., 2022; Andrews et al., 2020; Berge & Torsteinsen, 2022; Da Cruz & Marques, 2012; Rackwitz & Raffer, 2024; Tavares & Camões, 2010), our research focuses on an emerging Latin American economy's context and includes SOEs on a multi-industry perspective.

Concerning policy implications, our study corroborates the idea that SOEs are permeable to the influence of governments (OECD, 2017), and that political control exerted by incumbents may significantly impact their performance over their life cycle (Aharoni, 1981; Menozzi et al., 2012; Musacchio & Lazzarini, 2014). This may in turn emphasize the importance of institutional arrangements and policies aimed at strengthening both the pursuit of public interests and of SOEs' financial sustainability (OECD, 2022).

There are, nonetheless, some limitations in our study. First, although our dataset allowed for testing the moderating effects of Non-Policy Party Behavior on the association of political ideology and financial performance, the variability of non-policy behavior in the lower and upper quartiles of observations is not large. Thus, future studies with larger samples (e.g., municipalities) should further the examination. Second, our study does not consider the other

types of behaviors (vote-seeking and office-seeking). It is not clear whether the incumbent's political party having one or more types of behaviors may affect the way political ideology influences SOEs' financial performance.

Despite the considerable heterogeneity across subnational governments in our empirical setting, which allowed for testing our hypotheses, this study considers only a single country. Therefore, to enhance external validity, future studies should include cross-country samples, encompassing a greater diversity of environments where political ideology may operate in different ways. Additionally, our dataset contains ideology information only at the incumbents' level. Hence, future research should investigate the effects of ideology at the individual level, considering the potential role of executives and directors in SOEs' outcomes. Finally, our study only addresses performance in its financial dimension, without considering the effects of incumbents' ideology on social outcomes or the achievement of public interests of SOEs. Thus, future research should address the multiple dimensions of SOEs' performance.

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ARTICLE 3: IS THE STATE A SOCIALLY RESPONSIBLE SHAREHOLDER? STATE-OWNED ENTERPRISES, POLITICAL IDEOLOGY, AND CORPORATE SOCIAL PERFORMANCE

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ABSTRACT

The effects of state ownership on firms' outcomes depend on how governments influence the goals of state-owned enterprises (SOEs). Yet scant scholarly attention has been devoted to understanding what circumstances shape governmental influence on SOEs' corporate social performance (CSP). Addressing this gap is important because SOEs are becoming increasingly more hybrid, and must thus balance multiple private and public stakeholders' financial and social goals. We contend that, compared to non-SOEs, SOEs face additional institutional and legitimacy pressures that lead them to act in socially responsible ways, resulting in higher social and environmental CSP. However, these pressures are moderated by two other factors that determine the strength of governmental influence: whether the state has a majority shareholding and the incumbent government's political ideology. We examine a 12-year panel of 150 Brazilian listed firms, including 41 SOEs, and demonstrate that state ownership is positively associated with the social dimension of CSP but only when the state is the majority shareholder, and thus able to strongly influence SOEs' goals. Moreover, the more right-leaning the government, the weaker becomes the moderating effect of majority state ownership. This is because political ideology determines how governments influence the tradeoffs between SOEs' economic and social goals.

Keywords: Corporate Social Performance; State-Owned Enterprises; Political Ideology.

INTRODUCTION

Management research shows that the effects of state ownership on firms' outcomes depends on how the government influences their goal setting (Aguilera et al., 2021; Lazzarini & Musacchio, 2018). The literature observes that governmental pressure on state-owned enterprises (SOEs) to pursue social goals may impair their efficiency, leading to poorer financial outcomes (Boardman & Vining, 1989; La Porta & López-de-Silanes, 1999). In turn, despite burgeoning investigation of how state ownership influences firms' corporate social performance (CSP), there is little convergence on the signs and strengths of that association (Faller & zu Knyphausen-Aufseß, 2018). This is intriguing because the same factors that make SOEs pursue social goals, thus impairing their financial performance, might boost their engagement in corporate social responsibility (CSR) activities, leading to greater CSP.

CSR entails "businesses bearing a responsibility to society and a broader set of stakeholders beyond its shareholders" (Wang et al., 2016, p. 534). It can be understood as the range of economic, legal, ethical, and discretionary actions that firms take to address diverse social issues (Carroll, 1979), such as consumerism, environmental challenges, discrimination, inequality, product safety, and labor relationships (Aguilera et al., 2007; Aguinis & Glavas, 2012; Carroll, 1979). CSP encompasses the outcomes of CSR activities (Ioannou & Serafeim, 2012; Wood, 1991), measured on broad social and environmental dimensions (Aguinis, 2011; Ioannou & Serafeim, 2012).

Understanding how state ownership influences firms' engagement in social and environmental CSR activities and, hence, their CSP is of concern to management scholars because SOEs remain relevant economic and social providers (OECD, 2017) and are also becoming more hybrid (Bruton et al., 2015), by increasingly resorting to capital from the private sector (e.g., by listing in stock exchanges). This hybridization inevitably requires SOEs to balance and trade off financial and social goals to meet the expectations of public- and

private-sector investors and other stakeholders (Wang et al., 2016). With CSP increasingly used as a criterion for investment decisions and social evaluations of firms (Berg et al., 2022), studies are needed to advance our understanding of how state ownership influences CSP.

Some scholars hypothesize and empirically show that state ownership is positively associated with CSP, arguing that the public nature of SOEs imposes institutional pressure to increase CSP (Calza et al., 2016; Chun, 2009; Dam & Scholtens, 2012; Earnhart & Lizal, 2006; Lau et al., 2016; Lopatta et al., 2017; Ntim & Soobaroyen, 2013; Sahasranamam et al., 2020; Zaid et al., 2020). Conversely, other researchers hypothesize and evidence that state ownership has a negative or neutral effect on CSP because SOEs have less efficient corporate governance mechanisms (Shah, 2011) or because governments may avoid some CSR activities to further specific political and bureaucratic goals (Zhang et al., 2010). Another theoretical basis for a negative correlation is that SOEs have legitimacy and receive support or even protection from the government agencies that founded them, meaning that SOEs have little need to seek preferred status and associated resources from the government by increasing CSP (Marquis & Qian, 2014).

The literature thus lacks consensus (Jain & Jamali, 2016; S. Li & Lu, 2020), especially because a non-negligible portion of empirical evidence supports a negative and/or nonsignificant association between state ownership and CSP (Chun, 2009; Dam & Scholtens, 2012; Lin & Nguyen, 2022; Sahasranamam et al., 2020; Wang & Jin, 2007; Zhang et al., 2010). A potential cause of heterogenous empirical findings is that SOEs might experience distinct levels of governmental influence, with different consequences for financial and social outcomes (Lazzarini & Musacchio, 2018). However, what conditions affect SOEs' CSP has not yet been systematically examined (Faller & zu Knyphausen-Aufseß, 2018; Jain & Jamali, 2016).

To address this gap, we focus not only on the direct association between state ownership and CSP but also on the moderating variables affecting the extent to which SOEs are induced by governments to pursue CSP goals. We specifically analyze how the state holding majority ownership and the incumbent government's political ideology temper or intensify the effects of state ownership on the social and environmental dimensions of CSP. Majority ownership gives the government control and facilitates interfering in firm management (Bruton et al., 2015; Musacchio et al., 2015; Vining et al., 2021), while the government's political ideology is a driver of SOEs' financial performance because it affects tradeoffs between economic and social goals (Aguilera et al., 2021).

Focusing on the years 2010–2021, this paper examines an unbalanced panel of 150 listed Brazilian firms, of which 41 are majority- or minority-owned by the national or subnational government. Brazil is a relevant empirical context for two main reasons. First, it is a democracy with regular elections (since 1988). Second, as a federative state, Brazil is composed of subnational governments with different party coalitions and political ideologies. Thus, with data from a single country, we can compare how heterogenous political ideologies of different governments affect SOEs within a broader institutional–legal framework. Our empirical design addresses endogeneity concerns, and the results for the complete dataset hold for a matched sample built with coarsened exact matching (CEM; Blackwell et al., 2009). The conclusions also hold for different estimation methods, such as dynamic panel data analysis (Arellano & Bond, 1991) and a fractional dependent variable approach (Villadsen & Wulff, 2021).

We found no robust evidence of an association between state ownership and the CSP environmental dimension. However, we empirically show that state ownership is positively associated with the CSP social dimension when a government is the majority shareholder: by exercising control rights, government can more easily influence SOEs to pursue social goals.

Moreover, the results show that the government's political ideology moderates the effect of majority state ownership on the CSP social dimension. Specifically, that association is weaker when a right-leaning government is the majority shareholder. Right-leaning governments are less prone to state interventionism in broad social and economic issues (Aguilera et al., 2021; Ioannou & Serafeim, 2012; Jackson & Apostolakou, 2010), pressuring SOEs to pursue more financially oriented objectives, rather than social goals.

To summarize, this research provides a comprehensive framework of the association between state ownership and CSP, disentangling divergent extant findings. By integrating current strands of research that explore how political ideology (Di Giuli & Kostovetsky, 2014; Gupta et al., 2017; Ioannou & Serafeim, 2012; Jiang et al., 2018) and state ownership (Calza et al., 2013; Dam & Scholtens, 2012; Faller & zu Knyphausen-Aufseß, 2018; Lin & Nguyen, 2022; Sahasranamam et al., 2020) affect CSP, the contribution of this study is not only that it provides additional evidence of the positive correlation between majority state ownership and the social dimension of CSP but also, and more importantly, that this correlation is moderated by the government's political ideology. This contribution is of scholarly relevance because, although institutional and legitimacy pressures derived from state ownership tend to be stable, governments with different ideologies that control SOEs may succeed each other over time. Therefore, neglecting the interaction with the incumbent government's political ideology may hinder how majority state ownership affects CSP. This approach responds to previous calls to examine the interaction of variables from different levels (e.g., organizational and governmental) to explain CSP heterogeneity (Aguilera et al., 2007; Aguinis & Glavas, 2012; Faller & zu Knyphausen-Aufseß, 2018; Wood, 2010) and helps to understand the nonlinear patterns that otherwise may remain unnoticed. Finally, another important contribution is to demonstrate that the effects of state ownership may differ for CSP's social and environmental dimensions.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

A survey by the Organisation for Economic Cooperation and Development (OECD, 2017) showed that central governments of countries all around the world (excluding China) were full or majority owners of firms valued at over USD 2.4 trillion and employing 9.2 million people. China alone had SOEs valued at USD 29.2 trillion and employing over 20 million people. As of 2017, there were over 750 listed majority- and minority-owned SOEs around the globe. Hence, SOEs are not only present throughout the world but also important economic and social players, deserving scholarly attention. Given the very nature of state-linked organizations pursuing broader economic and social goals, it is reasonable to expect that SOEs will tend to behave in socially responsible ways, which may lead to higher CSP on both the social and environmental dimensions. This section presents theoretical arguments for this expectation, as well as circumstances in which it may be tempered or exacerbated.

Given SOEs' economic importance, the effects of state ownership on financial performance have been thoroughly researched in recent decades (Aguilera et al., 2021; Bai & Xu, 2005; Boardman & Vining, 1989; Rezende & Fontes Filho, 2013; Lazzarini & Musacchio, 2018; Megginson & Netter, 2001; Shleifer & Vishny, 1994). However, management scholars have only recently started investigating in depth the effects on firms' CSP (Calza et al., 2016; Chun, 2009; Dam & Scholtens, 2012; Lin & Nguyen, 2022; Shah, 2011; Zaid et al., 2020; Zhou, 2019).

A few studies propose that state ownership has a negative or neutral impact on CSP through less efficient corporate governance (Shah, 2011) or governments avoiding some CSR activities to further specific political and bureaucratic goals (Zhang et al., 2010). SOEs may also be less motivated to quickly respond to stakeholders' CSP pressures, compared to counterparts dependent on the market for survival (Shah, 2011). Moreover, because SOEs have legitimacy and receive support from the government that founded them, they have little need

to seek preferred status and associated resources from the government by achieving higher CSP (Marquis & Qian, 2014).

Conversely, other studies argue that state ownership positively influences CSP. They share the assumption that profit is not the main driver of the state-owner, who typically pushes more social-oriented goals (Calza et al., 2016; Chun, 2009; Dam & Scholtens, 2012; Lin & Nguyen, 2022; Sahasranamam et al., 2020; Zu & Song, 2009). Similarly, governments have incentives to pursue social stability and can appoint SOE executives who will implement their social policies (Lopatta et al., 2017; Zhou, 2019). In addition, governments face public pressure to disclose information on their firms' social actions, which fosters high CSP (Zaid et al., 2020; Zhou, 2019).

From an institutional theory standpoint, Sahasranamam et al. (2020) argue that historical, social, and economic factors, especially in developing countries, "led government firms to be viewed as both economic and social providers of local communities" (p. 1170). Accordingly, SOEs likely face normative pressures to continue acting as social providers. Lau et al. (2016) also contend that state ownership pushes firms to greater CSP "as it is deemed necessary for a state firm to be a role model for its counterparts" (p. 78). State ownership thus generates institutional pressures on SOEs through a normative and implicit duty to perform in socially responsible ways.

Drawing on this literature, we contend that SOEs face higher institutional pressure than their private-sector counterparts, which pushes them to achieve higher CSP. As organizations directly linked to the state, SOEs respond to formal and informal norms that force them to act in socially responsible ways, or at least avoid socially irresponsible behaviors (Campbell, 2007). This additional institutional burden may derive, for instance, from SOEs' historic roles as social and economic providers, especially in emerging and post-transition economies (Sahasranamam et al., 2020). As stakeholder expectations tend to be stable (Mishina et al.,

2012), it is reasonable to expect that these perceived roles persist over time, becoming a source of institutional pressure.

From an institutional perspective, firms are societal institutions granted legitimacy that allows them to operate in markets (Davis, 1973). However, if central stakeholders in society (e.g., consumers, suppliers, employees, investors, and creditors) lose confidence that a firm will pursue its intended goals or behave as it is expected to, legitimacy may be lost (Wood, 1991). It is reasonable to expect that SOEs' legitimacy is influenced by the very nature of state ownership. For instance, public administration scholars have demonstrated that social evaluation of public organizations includes a moral dimension encompassing protection of public interests and being "compassionate, flexible and honest" (Carpenter & Krause, 2012, p. 26). It also comprises a procedural dimension involving perceptions of how organizations follow commonly accepted rules and norms, regardless of the quality of their decisions. Given their intimate link to the state, SOEs are subject to a unique set of normative criteria in social evaluations, from which their legitimacy and reputation are derived. The need to protect their legitimacy and reputation pressures SOEs to engage in socially responsible behaviors, thus increasing their CSP.

To summarize, regardless of whether the state is a majority or minority shareholder, SOEs face pressure to act in socially responsible ways because they are evaluated according to normative principles and assumptions typical for public organizations. Therefore, we propose the following hypothesis:

> *Hypothesis 1. State ownership is positively associated with the social and environmental dimensions of CSP.*

Despite the above theoretical arguments for a positive state ownership–CSP association, several empirical studies have found a nonsignificant or even negative relationship (Chun, 2009; Dam & Scholtens, 2012; Lin & Nguyen, 2022; Sahasranamam et al., 2020; Wang

& Jin, 2007; Zhang et al., 2010). This demands further scrutiny of the specific circumstances that may temper or intensify the pressures derived from state ownership.

The level of state ownership varies greatly, allowing for lower or higher levels of governmental influence. Such influence is higher when a government is the majority shareholder and, hence, exercises control rights on the firm. In this case, the government is visibly involved in or responsible for appointing most firm directors and executives, conducting business operations, and/or making strategic decisions at firm level. Because the public typically equates such SOEs with public sector organizations, societal pressures to act in socially responsible ways are likely to be greater. Thus, majority ownership is an important circumstance to consider.

Previous empirical research also highlights the need to consider the percentage of state ownership to more accurately assess its effects on firms' CSP (Sahasranamam et al., 2020). Studies have shown that a higher level of government control brings a greater impact on firms' financial performance (Bruton et al., 2015; Inoue et al., 2013; Musacchio et al., 2015; Vining et al., 2021). Therefore, we expect the positive effects of state ownership on CSP to strengthen when a government is the majority shareholder. We thus propose the following hypothesis:

> *Hypothesis 2. When a government is the majority shareholder of an SOE, the positive effects of state ownership on CSP's social and environmental dimensions are intensified.*

We further argue that the incumbent government's political ideology may temper or intensify the effects of majority state ownership on CSP. As majority shareholder, the government will be more or less prone to influence SOEs' management according to its view of the state's role in addressing economic and social issues (Aguilera et al., 2021).

We follow Aguilera et al. (2021) and Xu et al. (2021) by defining political ideology as an interrelated set of attitudes, behaviors, and values about the goals of society and how they

should be achieved. As Aguilera et al. (2021, p. 3) highlight, political ideology "captures the political beliefs of those in power" and is typically "portrayed as a left-right distinction." The "left" political ideology is considered more prone to supporting state intervention in economic and social issues, and striving for "political ideals like egalitarianism, a fair distribution of wealth and income, and the enactment and maintenance of a welfare state." By contrast, the political "right" pursues less state intervention and place "lower emphasis on a welfare state" (Aguilera et al., 2021, p. 3).

Jiang et. al. (2018) found that Chinese managers with a more socialist political ideology (i.e., left-leaning) are more likely to support firms' social responsibilities, while those with a more right-leaning political ideology are more likely to support firms' focus on economic goals. Similarly, Xu et al. (2021) evidenced that US firms have stronger CSP when led by more liberal (vs. conservative) CEOs. Because left-leaning managers tend to exhibit more concern and care about environmental, social, and governance (ESG) issues (Murtha & Lenway, 1994), they typically steer their firms toward more social responsibilities (Briscoe et al., 2014; Xu et al., 2021).

In addition, when the government is the majority shareholder, it appoints the majority of SOE directors and executives (OECD, 2017). Irrespective of being at the national or subnational level, governments "may prefer managers and directors similar to themselves in terms of political ideology" (Aguilera et al., 2021, p. 3) and may also "be tempted to appoint politicians or politically connected executives as CEOs" (Musacchio et al., 2015, p. 120). Thus, when the government is left-leaning (right-leaning), it tends to appoint more left-leaning (right-leaning) executives. This means that the pressures naturally deriving from state ownership to achieve greater CSP are likely exacerbated by politically connected directors and executives appointed by a left-leaning government owner, since these executives will likely advocate for the SOE to intervene more actively in economic and social issues. Conversely, the positive

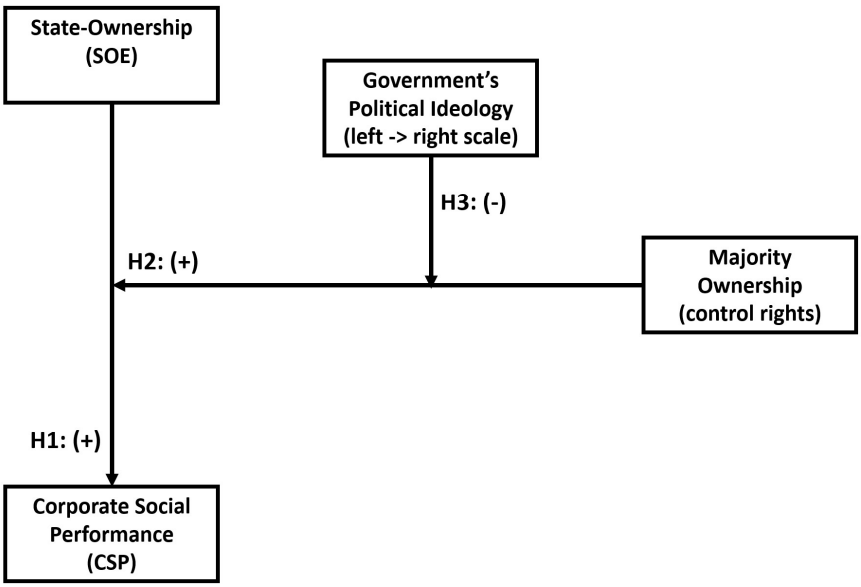
effects of majority state ownership on CSP are likely tempered by right-leaning politically connected executives, who tend to focus more on financial-oriented goals (Briscoe et al., 2014; Jiang et al., 2018; Xu et al., 2021).

Furthermore, in addition to the influence of the politically connected directors and executives, we expect that societal pressures on SOEs to increase CSP will be weaker when a government is right-leaning, irrespective of whether it is a national or a subnational government. The reason is that a right-leaning elected government will more legitimately prioritize economic or financial outcomes rather than social goals, decreasing societal pressures for greater CSP. Conversely, societal pressures on SOEs to achieve greater CSP will be stronger when an elected government is left-leaning because it will be expected to focus on social and environmental goals rather than on economic performance. We thus propose the following hypothesis:

> *Hypothesis 3. The more right-leaning the government owner of an SOE, the weaker the positive effect of majority state ownership on the environmental and social dimensions of CSP.*

Figure 1 schematically illustrates our proposed framework describing how state ownership affects firms' CSP. A complete approach to explaining this association should include variables with moderating roles, such as majority ownership by the state and the government's political ideology.

Figure 1: Framework of the State Ownership–CSP Association.



Notably, Figure 1 depicts both the moderation of majority ownership on the state ownership–CSP association and the moderation of that moderating effect by the government's political ideology. Adopting this moderated moderation approach is consistent with Aguilera et al.'s (2021) framework, which highlights that multiple interactions between diverse institutional variables (e.g., political ideology, state capacity, and political constraints) temper or intensify the effects of state ownership on firms' outcomes. Nevertheless, majority ownership is itself a type of state ownership: an SOE is either majority-owned or minority-owned. Thus, our framework can be empirically operationalized with a simpler approach that avoids the theoretical and empirical complexities of three-way interactions. Specifically, we dichotomously split the state-ownership variable into majority- and minority-ownership variables, then test a model with political ideology moderating the majority state ownership–CSP association.

DATA AND METHODS

Empirical Context

Brazil is a federative republic in which the national and subnational governments are autonomous and independent from one another. After nominations by individual political parties or their coalitions (currently, there are 29 political parties in Brazil), both the President (national level) and the Governors of all states (subnational level) are concurrently selected through elections every four years. Thus, ideologically different governments may not only succeed one another but may also coexist across the "federative units," which are the Union at the national level or the States at the subnational level.

The political ideologies of the President and the Governors play a significant role in shaping the programs, decisions, and behaviors of their respective governments, especially regarding the degree of state interventionism in economic and social issues. Each government is bound by its constitutional mandates and objectives, which may differ between the national and the subnational levels. However, in Brazil, all levels of government can establish SOEs through the enactment of a law (i.e., with the approval of the respective legislative branch) that formally defines the public interests to be pursued by the SOE. Under certain circumstances, both governments and majority-owned SOEs can also own minority shareholdings in other firms.

An important institutional characteristic of state ownership of firms in Brazil is that they are regulated by a unique framework applicable to SOEs of all levels of government, which derives from Brazil's Constitution. Thus, the way in which the governments can influence their SOEs is similar at both the national and subnational levels. In other words, although governments from the national and subnational levels have different jurisdictions, objectives, and responsibilities, they are subject to the same set of rules regarding governance, management, and the control of SOEs.

We focus on Brazil because it is a democratic country with regular elections (since 1988) that provide great diversity in the political ideologies of national and subnational governments. Thus, political ideology is heterogeneous across different governments at the same level, across levels, and in the same governments over time. Second, Brazil has listed SOEs owned by different levels of government. Thus, although the dataset is from a single country, it allows a comparison of how heterogenous political ideologies affect SOEs owned by governments at different levels within the same broader institutional–legal framework. Third, Brazil is a developing country plagued by economic and social inequalities and environmental challenges and with a diverse set of social issues that make CSR especially important. Consequently, significant institutional pressures may push firms to engage in CSR activities. By focusing on Brazil, we also answer a scholarly call to diversify CSP research by analyzing a dataset for a developing country (Wang et al., 2016).

Sample

To test the hypotheses, we analyze a dataset of 150 listed Brazilian firms, of which 41 have majority or minority national or subnational state ownership. The unbalanced panel spans the years 2010–2021 and comprises 1,521 firm-year observations. We selected only listed firms (i.e., firms with shares traded in a stock exchange) because, as highlighted by the OECD (2022), SOEs may have weaker disclosure practices when unlisted or subject to limited enforcement of corporate disclosure laws. Moreover, comprehensive CSR and governance data for unlisted firms are rarely publicly available. To assure both data availability and adequate counterfactuals, listed private-sector firms are used as the baseline for listed SOEs.

CSP Variables

While firms are increasingly engaging in CSR activities, only a few independent evaluators create, implement, and publish comprehensive CSP indicators, commonly available via subscription to their platforms or systems. These indicators, usually termed ESG scores,

are based on methodologies developed by independent evaluators and are extensively used in management research (Bertrand et al., 2021; Dam & Scholtens, 2012; Ioannou & Serafeim, 2012).

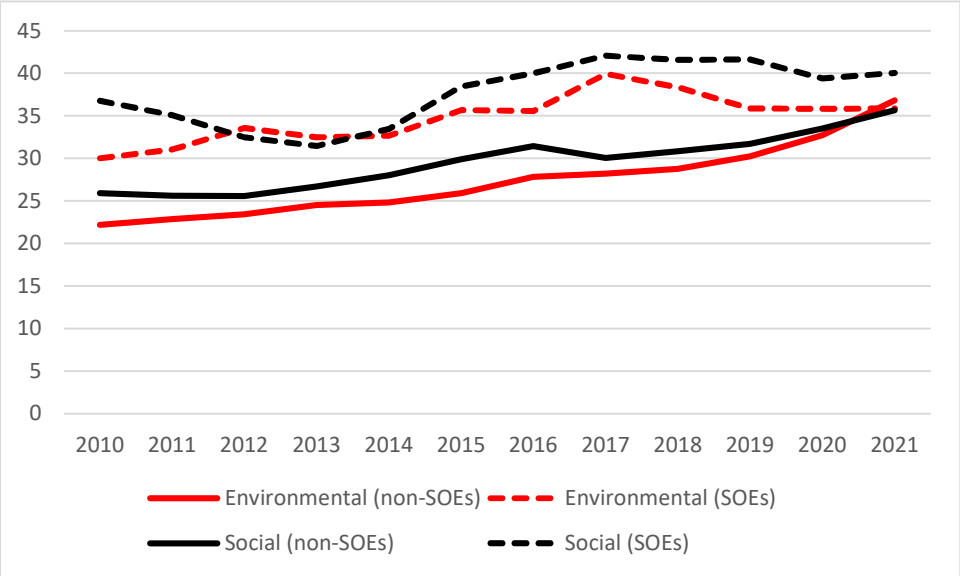
To reflect firms' CSP, we use the proprietary Bloomberg ESG Disclosure Scores (BEDS), which range from 0 for companies that do not disclose any ESG data to 100 for those disclosing every data point (Bloomberg, 2023). Items used to assess the scores are selected according to the specificities of each industry because certain topics do not apply to all industries (Bloomberg, 2023). We use only the *Social Disclosure Score* and the *Environmental Disclosure Score* of the BEDS as dependent variables because these two categories have been extensively recognized as the main dimensions of a firm's CSP (Dam & Scholtens, 2012; Jackson & Apostolakou, 2010; Stanwick & Stanwick, 1998). These two scores are used separately as dependent variables, along with the average score for the two dimensions (*Average Disclosure Score*). We do not use the *Governance Disclosure Score* as a dependent variable because it does not reflect a CSR engagement outcome. Instead, we use it as a control variable.

The *Social Disclosure Score* encompasses discrimination, diversity, human rights, relationships with communities, political contributions, and the supply chain. The *Environmental Disclosure Score* includes items on carbon emissions, climate change effects, pollution, waste disposal, renewable energy, and resource depletion (Bloomberg, 2022). These scores are available for 1,521 firm-year observations from 2010 to 2021.

We adopt the *Social Disclosure Score* and *Environmental Disclosure Score* as the main dependent variables for two main reasons. First, the literature recognizes that CSR disclosure reflects the fulfillment of the principles of legitimacy and public responsibility, and thus is a relevant measure of CSP (Calza et al., 2016; Hummel & Schlick, 2016; Jain & Jamali, 2016; OECD, 2022; Wood, 2010; Zaid et al., 2020). Second, the BEDS has not only more

observations than other independent evaluators' ESG scores but also the widest available time horizon for Brazilian listed firms. Figure 2 shows how the mean values of the *Social Disclosure Score* and the *Environmental Disclosure Score* of listed Brazilian firms evolved over time during the sample period.

Figure 2: Evolution of CSP Scores during the time horizon of the sample (mean values).



Two important caveats must be noted. The BEDS may not capture firms' effective CSP because disclosure may be affected by greenwashing. Moreover, it may not be convergent with other raters' scores because independent evaluators each use different criteria to assess CSP (Berg et al., 2022; Chatterji et al., 2016). To address these concerns, our robustness checks use two alternative dependent variables, Bloomberg's *Social Performance Score* and *Environmental Performance Score*, which reflect not only CSR activity disclosures but also achievements in these areas, more accurately reflecting CSP. These performance scores have the advantage of being produced by the same rater as the main dependent variables. We do not use them as the main dependent variables because the dataset is significantly smaller than the BEDS dataset (470 firm-year observations vs. 1,521).

In another robustness check we use the Standard and Poor's (S&P) Global ESG scores, specifically the *S&P's Social Score* and *S&P's Environmental Score*, which also reflect CSR

achievements, rather than only disclosures. These scores are produced by a different rater to our main dependent variables, using a different methodology and criteria. Again, we do not employ the *S&P's Social Score* and *S&P's Environmental Score* as our main dependent variables because only 548 firm-year observations are available for 2010–2021. Considering that social and environmental performance scores from different raters may substantially diverge from one another (Berg et al., 2022; Chatterji et al., 2016), using two alternative CSP measures makes our results more robust.

State-Ownership Variables

The main independent variable is operationalized as a dummy reflecting whether a firm has state ownership: *SOE* equals 1 if the firm is either a majority- or minority-owned national or subnational SOE, and 0 otherwise. We manually searched the websites of national and subnational governments and firms to identify the existence of state ownership.

As highlighted above, we dichotomously split the SOE variable into two alternative variables: majority- and minority-owned SOEs. *Majority-owned SOE* is a dummy variable that equals 1 if the state owns more than 50% of a firm's capital, thus exercising control rights, and 0 otherwise. In total, 20 firms are majority-owned, with 9 controlled by the Brazilian national government and 11 by subnational governments. In turn, *Minority-owned SOE* is a dummy variable that equals 1 if the state shareholder is not the majority owner, and 0 otherwise. In total, 21 SOEs are minority-owned by the national or a subnational government.

To identify minority-owned SOEs, we use a dataset made publicly available by the National Economic and Social Development Bank (BNDES). All firms in which the BNDES owned more than 5% of total equity (a legal definition of a relevant investment in a firm) and/or for which the government held the right to appoint board directors (one way to exert influence) are classified as minority-owned SOEs in this study.

Political Ideology Variable

We operationalize the incumbent government's political ideology by measuring the position of the government executive branch chief's political party on a left–right-leaning *continuum* (Aguilera et al., 2021), at the moment of taking office (eventual party changes during the term were analyzed individually). As Bolognesi et al. (2023) highlight, "[t]he differentiation of political parties between left and right is often based on their stance on the unidimensional role of state intervention in the economy … and the defense of social equality as a natural or constructed phenomenon" (p. 4). Prior literature classifies Brazilian political parties on a left–right-leaning continuum (Power & Zucco, 2009; Tarouco & Madeira, 2015; Zucco, 2011).

We follow Bolognesi et al.'s (2023) updated ideological classification of Brazilian political parties for three main reasons. First, their study of Brazilian parties' ideologies is the most up to date. Second, its overall left-to-right ordering of parties' ideologies is in line with insights from other studies of Brazilian political parties (Power & Zucco, 2009; Tarouco & Madeira, 2013, 2015; Zucco, 2011), although there are some differences attributable to the time of and/or methods employed by each study. Third, it is based on a survey of experts, who have strong credentials in assessing parties' ideologies (Benoit & Laver, 2006).

Bolognesi et al. (2023) developed a 0–10 scale for classifying political parties according to their ideologies: far-left, 0–1.50; left, 1.51–3; center-left, 3.01–4.49; center, 4.50–5.50; center-right, 5.51–7.00; right, 7.01–8.50; and far-right, 8.51–10. We use the ideology scores in our main models, instead of categories. As an alternative approach, though, we grouped the first two categories as "left-leaning" parties (scores ≤ 3) and the two last ones as "right-leaning" (scores ≥ 7).

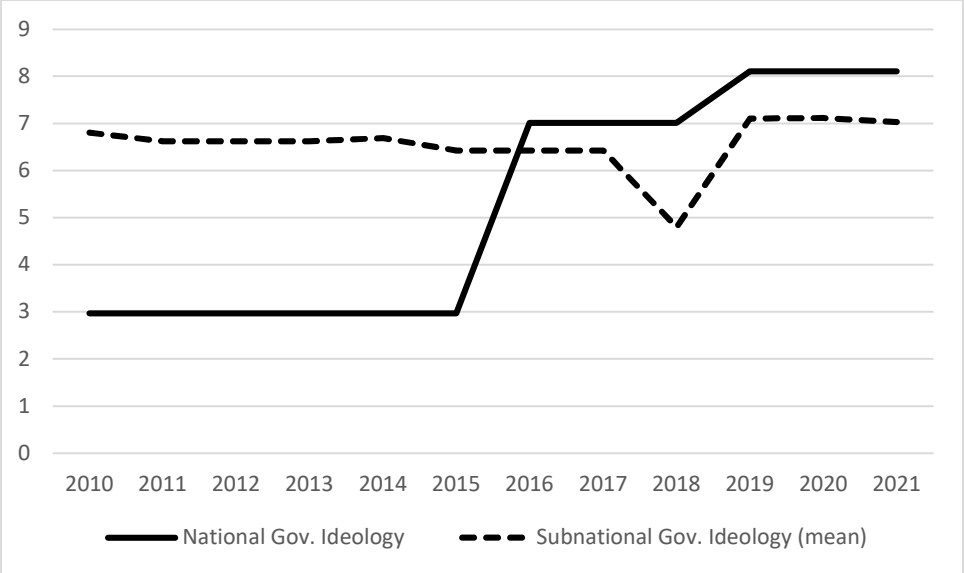
Given that no longitudinal survey of Brazilian political parties' ideologies with annual data exists for 2010–2021, we cannot consider how the parties' political ideologies evolved

over that time. We therefore use the scores of Bolognesi et al. (2023) as a time-invariant variable for political ideology. This decision is justified by the minimal changes in left- to right-ordering of parties' ideologies in three different surveys conducted in 2009, 2015, and 2021 (Bolognesi et al., 2023; Power & Zucco, 2009; Tarouco & Madeira, 2015). Moreover, we cannot mix these three surveys because they use different methods and scales.

We manually searched governmental websites to find the political party affiliations of executive branch chiefs of national and subnational (state) governments for the years 2010–2021. The main source of information was the Brazilian Electoral Court website, that publishes the elections results. Subsequently, we matched them with Bolognesi et al.'s (2023) political ideology scores and included them as numeric variables in our dataset: *National Government Political Ideology* and *Subnational Government Political Ideology*. Additionally, we created the *Applicable Government Ideology* variable and assigned it the value of the *Subnational Government Political Ideology* if the firm is a subnational SOE or the *National Government Political Ideology* otherwise.

Figure 3 shows how the incumbent governments' political ideologies evolved over time during the sample period.

Figure 3: Evolution of *political ideology* during the time horizon of the sample.



Control Variables

Table 1 presents details of and reasons for using the control variables in our models. These variables have been systematically adopted in other previous empirical studies aimed at investigating CSP and/or state ownership. Financial and ESG data are from Bloomberg.

Table 1: Control Variables Used in Econometric Models.

Variable	Description	Reason for use	Reference
Size	Natural log. of total assets	Firm size affects engagement in CSR	(Barnea & Rubin, 2010; Bertrand et al., 2021; Dam & Scholtens, 2012; Gupta et al., 2017; Jones, 1999; Lau et al., 2016; W. Li & Zhang, 2010; Lin & Nguyen, 2022; Sahasranamam et al., 2020; Stanwick & Stanwick, 1998; Xu et al., 2021)
ROA	Return on assets	Higher profitability affects engagement in CSR by generating financial slack	
Leverage	Average total assets divided by average total common equity	The risk level influences firms' CSR engagement	
Tangibility	Net fixed assets divided by total assets	Measures capital intensity, and is commonly used in state ownership research to control for possible reasons for state involvement in specific types of firms or industries	(Lazzarini & Musacchio, 2018)
MTB	Market-to-book ratio, calculated by dividing the market value of equity by the book value of equity	Captures the fact that highly evaluated firms in financial markets tend to report CSR activities more than others, and controls for industrial growth opportunity, helping to capture the effects of variations in industries	(Barnea & Rubin, 2010; Lin & Nguyen, 2022; Pham et al., 2020; Xu et al., 2021)
Governance Disclosure Score	Bloomberg's governance disclosure score (0–100)	Controls for corporate governance features, such as board independence and executive compensation, that may influence firms' engagement in CSR; a proxy for governance maturity	(Aguinis & Glavas, 2012; Calza et al., 2016; Gupta et al., 2017; Khan et al., 2013; Lau et al., 2016; W. Li & Zhang, 2010; Zaid et al., 2020)
Environmental Disclosure Score	Bloomberg's environmental disclosure score (0–100)	Controls for levels of involvement in environmental CSR activities that may derive from characteristics of the industry and/or legislation; used when social performance is the dependent variable; the lagged version is used when environmental performance is the dependent variable	(Gupta et al., 2017; Stanwick & Stanwick, 1998)
Social Disclosure Score	Bloomberg's environmental disclosure score (0–100)	Controls for levels of involvement in social CSR activities that may derive from characteristics of the industry and/or legislation; used when environmental performance is the dependent variable; the lagged version is used when social performance is the dependent variable	(Gupta et al., 2017; Stanwick & Stanwick, 1998)
Recession	Dummy variable indicating the occurrence of economic recession in a year	A recession may affect firms' financial and non-financial outcomes, especially for SOEs because the government may be more tempted to intervene in firm management	(Lazzarini & Musacchio, 2018)
National Government Ideology	Score of the national government on the left–right-leaning spectrum	The national government's political ideology affects the CSP of all firms in the country	(Aguilera et al., 2021; Ioannou & Serafeim, 2012; Jackson & Apostolakou, 2010)
Subnational Government Ideology	Score of the national government on the left–right-leaning spectrum	The subnational government's political ideology affects the CSP of all firms in the state/province	(Ioannou & Serafeim, 2012; Jackson & Apostolakou, 2010)

Econometric Design

The econometric model to test Hypothesis 1 is:

$$DV_{it} = \beta_1 SOE_{it} + \delta^k CONTROLS + \alpha_i + \mu_t + \varepsilon_{it} \quad (1)$$

where DV_{it} stands for the dependent variables of firm *i* at time *t*; SOE_{it} indicates whther firm *i* is (majority or minority) state-owned at time *t*; δ is a vector of coefficients for the different control variables of the study (*k* is the number of control variables); *CONTROLS* is a vector of control variables; α_i and μ_t respectively represent firm and year fixed effects; and ε_{it} is the error term.

The econometric specification to test Hypotheses 2 and 3 is:

$$DV_{it} = \beta_2 SOE\_MAJ_{it} + \beta_2, SOE\_MIN_{it} + \beta_3 SOE\_MAJ_{it} \times APPIDEO_{it} + \delta^k CONTROLS + \alpha_i + \mu_t + \varepsilon_{it} \quad (2)$$

where SOE_MAJ_{it} indicates whether firm *i* is a *Majority-Owned SOE* at time *t*, and SOE_MIN_{it} indicates if firm *i* is a *Minority-Owned SOE* at time *t*. $APPIDEO_{it}$ represents the *Applicable Government Ideology* of firm *i* at time *t.* As *National Government Political Ideology* and *Subnational Government Political Ideology* are included in the vector of control variables, the interaction of *Majority-Owned SOE* with *Applicable Government Ideology* allows us to adequately assess the specific effects of government' ideology when it is an owner. For non-SOEs, the interaction term gets the value of 0; for national SOEs, the value of the *National Government Political Ideology;* and, for subnational SOEs, the value of *Subnational Government Political Ideology.* Notably, equation (2) captures the effects of both Majority- and Minority-owned SOEs on CSP, with non-SOEs as the regression baseline. It also operationalizes the full framework in Figure 1 without implementing three-way interaction terms (as *Majority-owned SOE* is a specific SOE type).

RESULTS

Descriptive Statistics and Regressions Results

Table 2 presents descriptive statistics and pairwise correlations for the variables used in our econometric models. There are no high correlations among independent variables, indicating that multicollinearity is not a serious issue.

Table 2: Descriptive Statistics and Pairwise Correlations.

Variables	Obs.	Mean	Stand. Dev.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) *Social Disclosure Score*	1521	31.99	16.06	1.00													
(2) *Environ. Disclosure Score*	1521	30.00	19.91	0.73	1.00												
(3) *Governance Disclosure Score*	1521	57.69	8.31	0.42	0.42	1.00											
(4) *SOE*	1521	0.21	0.41	0.19	0.14	−0.01	1.00										
(5) *Majority-owned SOE*	1521	0.13	0.33	0.20	0.03	0.05	0.74	1.00									
(6) *Minority-owned SOE*	1521	0.09	0.28	0.04	0.17	−0.07	0.59	−0.11	1.00								
(7) *National Gov. Pol. Ideology*	1521	5.53	2.35	0.16	0.16	0.31	−0.09	−0.02	−0.11	1.00							
(8) *Subnational. Gov. Pol. Ideology*	1521	6.62	1.47	0.01	−0.01	0.07	−0.08	−0.10	0.01	0.03	1.00						
(9) *ROA*	1518	4.59	7.58	0.04	0.01	−0.01	−0.07	0.00	−0.10	0.01	−0.02	1.00					
(10) *Size*	1519	8.32	1.54	0.37	0.38	0.26	0.19	0.15	0.09	−0.05	0.01	−0.02	1.00				
(11) *Leverage*	1488	4.37	7.69	0.04	0.05	0.05	0.01	0.02	−0.01	0.00	−0.01	−0.14	0.04	1.00			
(12) *Tangibility*	1489	0.23	0.23	0.03	0.20	0.04	0.04	−0.11	0.18	−0.01	0.06	−0.05	0.01	0.00	1.00		
(13) *MTB*	1429	13.91	242.74	−0.03	−0.06	−0.02	−0.05	−0.06	0.01	0.02	−0.01	0.02	0.04	−0.01	0.02	1.00	
(14) *Recession*	1521	0.34	0.47	0.04	0.01	0.09	0.02	0.00	0.02	−0.06	0.03	−0.10	−0.05	0.06	−0.01	0.02	1.00

Table 3 presents static panel data regressions results for the three dependent variable (i.e., *Average Disclosure Score*, *Social Disclosure Score* and *Environmental Disclosure Score*). Models 1 to 3 present the results for *Average Disclosure Score*, while models 4–6 and 7–9 respectively show the results for the *Social Disclosure Score* and *Environmental Disclosure Score*. Models 1, 4, and 7 show that when majority- and minority-owned SOEs are considered together, there is no significant association between state ownership and the dependent variables. Thus, there is no support for Hypothesis 1. However, models 2, 5, and 8 show that *Majority-Owned SOE*, representing majority state-ownership, is significantly associated with *Average Disclosure Score* (model 2: $\beta = 3.41$, $p < 0.01$) and both *Social Disclosure Score* and *Environmental Disclosure Score* (model 5: $\beta = 6.22$, $p < 0.01$; model 8: $\beta = -3.37$, $p < 0.01$). No significant effects are found for *Minority-Owned SOE*. The association between *Majority-Owned SOE* and *Social Disclosure Score* is positive, in line with the hypothesized relationship. However, the association with *Environmental Disclosure Score* is negative, and thus opposite to the predicted direction. Model 3 confirms that the interaction between *Majority-Owned SOE* and *Applicable Government Ideology*, representing the political ideology of the government owner, is significantly associated with *Average Disclosure Score* (model 3: $\beta = -0.50$, $p < 0.10$). Model 6 corroborates this moderating role of the government owner's political ideology for the *Social Disclosure Score* ($\beta = -0.57$, $p < 0.10$), but model 9 shows that there is no moderating role for the *Environmental Disclosure Score*. Moreover, when the interaction term is added to model 9, even the main effect of *Majority-Owned SOE* on the *Environmental Disclosure Score* become nonsignificant.

Table 3: Static Panel Data Regression Results (*Political Ideology* measured on scale).

	Average Disclosure Score			**Social** Disclosure Score			**Environmental** Disclosure Score		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
SOE	0.53			0.30			0.19		
	(0.95)			(1.33)			(1.34)		
Minority-Owned SOE		0.33	0.41		−0.13	−0.04		0.45	0.45
		(0.98)	(0.98)		(1.37)	(1.36)		(1.39)	(1.39)
Majority-Owned SOE		**3.41*****	**6.94*****		**6.22*****	**10.23*****		**−3.37*****	−3.23
		(0.97)	(2.36)		(0.86)	(2.41)		(1.08)	(3.10)
Majority-Owned SOE × App. Gov. Ideology			**−0.50***			**−0.57***			−0.02
			(0.30)			(0.33)			(0.41)
National Government Ideology	**3.51*****	**3.53*****	**3.39*****	**1.26****	**1.31****	**1.15***	**3.02*****	**2.99*****	**2.98*****
	(0.74)	(0.74)	(0.76)	(0.61)	(0.61)	(0.60)	(0.95)	(0.95)	(0.97)
Subnational Government Ideology	**−0.34***	**−0.34***	−0.21	−0.12	−0.12	0.02	−0.24	−0.24	−0.23
	(0.18)	(0.18)	(0.21)	(0.21)	(0.21)	(0.22)	(0.32)	(0.32)	(0.36)
lagged Average Disclosure Score	**0.65*****	**0.64*****	**0.64*****						
	(0.03)	(0.03)	(0.03)						
lagged Social Disclosure Score				**0.45*****	**0.45*****	**0.45*****			
				(0.03)	(0.03)	(0.03)			
Environmental Disclosure Score				**0.29*****	**0.29*****	**0.29*****			
				(0.04)	(0.04)	(0.04)			
lagged Environmental Disclosure Score							**0.29*****	**0.29*****	**0.29*****
							(0.04)	(0.04)	(0.04)
Social Disclosure Score							**0.37*****	**0.37*****	**0.37*****
							(0.05)	(0.05)	(0.05)
Governance Disclosure Score	**0.13*****	**0.12*****	**0.13*****	**0.09****	**0.09****	**0.09****	0.06	0.06	0.06
	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)	(0.05)
ROA	**0.07****	**0.07****	**0.07****	**0.07****	**0.07****	**0.08****	0.01	0.01	0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Size	**1.55****	**1.54****	**1.52****	0.42	0.39	0.37	1.13	1.14	1.14
	(0.76)	(0.76)	(0.76)	(0.73)	(0.73)	(0.73)	(0.92)	(0.92)	(0.92)
Leverage	0.08	0.08	0.08	0.05	0.04	0.04	0.07	0.07	0.07
	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)	(0.05)
Tangibility	−3.81	−3.97	−4.00	−0.73	−1.06	−1.10	**−3.99***	**−3.79***	**−3.79***
	(2.52)	(2.52)	(2.55)	(2.85)	(2.78)	(2.84)	(2.24)	(2.24)	(2.24)
MTB	−0.000	−0.000	−0.000	**0.00****	**0.00****	**0.00****	**−0.00***	**−0.00***	**−0.00***
	(0.000)	(0.000)	(0.000)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.000)
Recession	**−1.49****	**−1.49****	**−1.49****	−0.33	−0.34	−0.34	**−1.58****	**−1.58****	**−1.58****
	(0.60)	(0.60)	(0.60)	(0.57)	(0.57)	(0.57)	(0.68)	(0.68)	(0.68)
Constant	**−31.49*****	**−31.70*****	**−31.21*****	−8.60	−9.04	−8.56	**−28.84*****	**−28.55*****	**−28.53*****
	(8.09)	(8.05)	(8.06)	(7.40)	(7.37)	(7.40)	(9.05)	(9.06)	(9.08)
N	1240	1240	1240	1240	1240	1240	1240	1240	1240
R^2	0.59	0.59	0.59	0.58	0.58	0.58	0.62	0.62	0.62

Notes: All models include year and firm fixed effects. Robust standard errors in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4 presents results with an alternative operationalization of political ideology, aimed at assessing the specific effects of left-leaning political ideology (with a dummy equaling 1 if *Applicable Government Ideology* score is ≤ 3.0) and of right-leaning political ideology (with a dummy equaling 1 if the *Applicable Government Ideology* score is ≥ 7.0). All models in Table 4 show that *Majority-Owned SOE* is significantly associated with the dependent variables. Again, no significant association is found for *Minority-Owned SOE*. The association of *Majority-Owned SOE* with the *Environmental Disclosure Score* is negative, contrary to the hypothesized relationship. Models 3 and 4 show that both left-leaning and right-leaning political ideologies play significant roles in moderating the association between *Majority-Owned SOE* and the *Social Disclosure Score*: the more left-leaning the government owner, the greater the association (model 3: $\beta = 2.31$, $p < 0.10$), and the more right-leaning the government owner, the weaker the association (model 4: $\beta = -2.31$, $p < 0.10$). Models 5 and 6 show no moderation effects of political ideology on the association between *Majority-Owned SOE* and *Environmental Disclosure Score*.

Table 4: Static Panel Data Regression Results (*Political Ideology* as dummy variables).

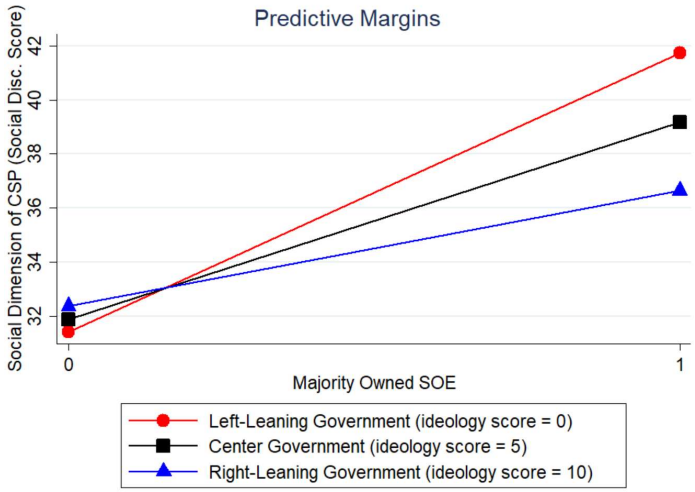
	Average Disclosure Score		**Social** Disclosure Score		**Environmental** Disclosure Score	
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Minority-Owned SOE	0.40	0.41	−0.02	−0.06	0.43	0.47
	(0.99)	(0.99)	(1.36)	(1.36)	(1.39)	(1.40)
Majority-Owned SOE	**3.59*** **	**5.06*** **	**6.42*** **	**8.37*** **	**−3.35*** **	**−3.67***
	(0.97)	(1.54)	(0.86)	(1.48)	(1.07)	(2.01)
Majority-Owned SOE × Left-leaning App. Ideology	2.21		**2.31***		0.18	
	(1.40)		(1.38)		(2.04)	
Majority-Owned SOE × Right-leaning App. Ideology		−1.82		**−2.31***		0.28
		(1.23)		(1.37)		(1.79)
Left-leaning National Government	−0.68		1.22		**−1.63***	
	(0.86)		(0.86)		(0.86)	
Left-leaning Subnational Government	1.49		0.77		0.99	
	(1.12)		(0.96)		(1.86)	
Right-leaning National Government		0.60		−1.30		**1.61***
		(0.87)		(0.86)		(0.88)
Right-leaning Subnational Government		−1.04		−0.00		−1.13
		(0.77)		(0.77)		(1.32)
lagged Average Disclosure Score	**0.64*** **	**0.64*** **				
	(0.03)	(0.03)				
lagged Social Disclosure Score			**0.45*** **	**0.45*** **		
			(0.03)	(0.03)		
Environmental Disclosure Score			**0.29*** **	**0.29*** **		
			(0.04)	(0.04)		
lagged Environmental Disclosure Score					**0.52*** **	**0.52*** **
					(0.04)	**(0.04)**
Social Disclosure Score					**0.37*** **	**0.37*** **
					(0.05)	(0.05)
Governance Disclosure Score	**0.13*** **	**0.12*** **	**0.09** **	**0.09** **	**0.06**	**0.06**
	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)
ROA	**0.07** **	**0.07** **	**0.08** **	**0.08** **	0.01	0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Size	**1.48***	**1.55** **	0.36	0.40	1.11	1.14
	(0.76)	(0.76)	(0.73)	(0.73)	(0.93)	(0.92)
Leverage	0.08	0.08	0.04	0.04	0.07	0.07
	(0.06)	(0.06)	(0.04)	(0.04)	(0.05)	(0.05)
Tangibility	−4.02	−4.04	−1.06	−1.08	**−3.85***	**−3.85***
	(2.61)	(2.57)	(2.87)	(2.85)	(2.28)	(2.27)
MTB	0.000	−0.00	**0.00*** **	**0.00** **	−0.00	**−0.00***
	(0.000)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Recession	**−1.51** **	**−1.51** **	−0.34	−0.34	**−1.61** **	**−1.60** **
	(0.60)	(0.60)	(0.56)	(0.56)	(0.68)	(0.68)
Constant	−5.02	−5.03	0.86	1.92	−5.71	−6.44
	(6.96)	(7.01)	(6.31)	(6.55)	(8.29)	(8.32)
N	1240	1240	1240	1240	1240	1240
R^2	0.59	0.59	0.58	0.58	0.62	0.62

Notes: All models include year and firm fixed effects. Robust standard errors in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

To summarize, Tables 3 and 4 show that state ownership is consistently associated with *Average Disclosure Score*, but only when a government is the majority shareholder. In addition, the association is positive for *Social Disclosure Score*, which represents the social dimension of CSP, as predicted. But it is negative for the *Environmental Disclosure Score*, which represents the environmental dimension of CSP, contrary to our prediction. The association of *Majority-Owned SOE* with *Social Disclosure Score* is moderated by the government owner's political ideology. Although Hypothesis 1 is not supported, these results support Hypotheses 2 and 3.

Figure 4 shows that the effects of ideology are higher for majority-owned SOEs. Left-leaning ideology (red line) intensifies the effect of majority ownership, while right-leaning ideology (blue line) tempers it.

Figure 4: Interaction Effects.



Robustness Checks

Coarsened exact matching. Matching can address endogeneity concerns by generating treated and control groups more similar with respect to observed confounders, thereby reducing model dependence and statistical bias. Table 5 presents the regression results after implementing CEM (Blackwell et al., 2009), which is a matching method increasingly used by

researchers (Mason, 2015; Zervas et al., 2017). Observations are matched based on all control variables described in Table 1. The numbers of observations in the regressions drastically decrease because we implement the "k2k" procedure (same number of treated and non-treated observations).

The results in Table 5 show that *Majority-Owned SOE*'s positive association with *Social Disclosure Score* (models 4, 5 and 6) and negative association with *Environmental Disclosure Score* (models 7, 8 and 9) hold after matching, respectively supporting and contradicting the relationships predicted in Hypothesis 2. Models 4, 5, and 6 corroborate the moderating role of *Applicable Government Ideology* shown in Tables 3 and 4, further supporting Hypothesis 3 on the social dimension of CSP. We find no support for the moderating effect of *Applicable Government Ideology* on the relationship between *Majority-Owned SOE* and *Environmental Disclosure Score*.

Table 5: Static Panel Data Regression Results after Matching.

	Average Disclosure Score			**Social** Disclosure Score			**Environmental** Disclosure Score		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
Minority-Owned SOE	**-16.97****	**-18.32****	**−15.85***	**−12.54***	**−13.55***	**−12.06***	−11.97	−11.97	−10.79
	(7.82)	(7.65)	(8.09)	(6.93)	(6.97)	(6.98)	(7.70)	(7.68)	(7.59)
Majority-Owned SOE	−1.35	−5.57	−3.45	**19.78****	**12.06***	**16.25****	**−17.66****	**−16.07****	**−16.92****
	(7.69)	(7.06)	(7.33)	(8.44)	(7.12)	(7.37)	(7.72)	(6.90)	(6.97)
Majority-Owned SOE × App. Government Ideology	−0.50			**−1.14***			0.35		
	(0.52)			**(0.63)**			(0.52)		
National Government Ideology	−0.11			−0.88			0.47		
	(1.81)			(2.08)			(2.60)		
Subnational Government Ideology	1.27**			**1.58****			0.13		
	(0.57)			(0.66)			(0.72)		
Majority-Owned SOE × Left-leaning App. Ideology		3.17			**7.28****			−2.56	
		(2.90)			(3.39)			(3.12)	
Majority-Owned SOE × Right-leaning App. Ideology			−1.36			**−4.72***			2.24
			(2.19)			(2.68)			(2.23)
Left-leaning National Government		0.01			−1.44			1.09	
		(2.30)			(2.68)			(2.24)	
Left-leaning Subnational Government		−5.66			**−7.02***			−0.08	
		(3.46)			(3.78)			(4.21)	
Right-leaning National Government			−0.18			0.90			−0.85
			(2.28)			(2.67)			(2.19)
Right-leaning Subnational Government			**4.17***			**5.59****			0.19
			(2.22)			(2.52)			(3.02)
lagged Average Disclosure Score	**0.63*****	**0.63*****	**0.64*****						
	(0.12)	(0.11)	(0.12)						
lagged Social Disclosure Score				**0.31*****	**0.29*****	**0.30*****			
				(0.10)	(0.10)	(0.10)			
Environmental Disclosure Score				**0.30*****	**0.31*****	**0.31*****			
				(0.08)	(0.08)	(0.09)			
lagged Environ. Disclosure Score							**0.61*****	**0.60*****	**0.61*****
							(0.11)	(0.10)	(0.11)
Social Disclosure Score							**0.33*****	**0.35*****	**0.34*****
							(0.10)	(0.10)	(0.10)
Governance Disclosure Score	−0.04	−0.03	−0.05	0.05	0.06	0.05	−0.13	−0.12	−0.13
	(0.12)	(0.12)	(0.12)	(0.09)	(0.09)	(0.09)	(0.12)	(0.12)	(0.12)
ROA	0.27	0.25	0.29	0.18	0.20	0.19	0.23	0.19	0.23
	(0.26)	(0.26)	(0.27)	(0.24)	(0.26)	(0.24)	(0.27)	(0.27)	(0.27)
Size	3.86	4.10	3.56	−0.48	−0.77	−0.39	5.29	**5.67***	4.79
	(3.76)	(3.78)	(3.93)	(3.50)	(3.54)	(3.56)	(3.28)	(3.32)	(3.25)
Leverage	1.14	1.30	1.0	1.32	1.63	1.19	0.41	0.27	0.34
	(0.80)	(0.87)	(0.83)	(1.09)	(1.15)	(1.09)	(0.84)	(0.88)	(0.81)
Tangibility	−1.30	−1.05	−1.07	**8.12****	**8.61****	**8.54****	**−8.19***	**−8.29***	**−8.26***
	(4.16)	(4.32)	(4.25)	(3.44)	(3.59)	(3.44)	(4.58)	(4.51)	(4.55)
MTB	**−0.89***	**−0.95***	**−0.92***	−0.89	−1.06	−0.87	−0.55	−0.46	−0.58
	(0.51)	(0.51)	(0.52)	(0.72)	(0.76)	(0.73)	(0.76)	(0.77)	(0.77)
Recession	0.66	0.65	0.52	1.25	1.32	1.14	0.12	0.02	0.05
	(1.51)	(1.53)	(1.53)	(1.72)	(1.75)	(1.78)	(2.18)	(2.16)	(2.15)
Constant	−19.62	−13.81	−12.50	1.82	6.88	−1.24	−25.68	−23.67	−15.99
	(30.19)	(27.82)	(28.09)	(27.74)	(25.20)	(25.80)	(29.08)	(25.37)	(24.36)
N	148	148	148	148	148	148	148	148	148
R^2	0.96	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96

Notes: All models include year and firm fixed effects. Robust standard errors in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Dynamic panel data analysis. System generalized method of moments (GMM) is a widely used dynamic panel data estimation method developed to address endogeneity issues (Arellano & Bond, 1991). We use it to further test the robustness of our results.

Model 5 of Table 6 corroborates that *Majority-Owned SOE* is positively associated with *Social Disclosure Score* (model 6: $\beta = 14.47$, $p < 0.05$), supporting Hypothesis 2. Moreover, the moderating role of the *Applicable Government Ideology* is robust since model 5 presents a significant coefficient for that variable ($\beta = -1.52$, $p < 0.10$). However, the negative association of *Majority-Owned SOE* with *Environmental Disclosure Score* vanishes with system GMM, which shows a lack of robustness for that specific relationship.

Fractional logit regression. Most management studies using CSP scores as dependent variables do not consider that these measures are bounded by specific minimum and maximum scores (e.g., 0–100). The boundedness of the dependent variable implies a nonconstant effect of the covariates since some observations may accumulate at the minimum and/or maximum scores. To account for this gradual tailing off of the effect near the boundary conditions, we use fractional logistic regressions (FLRs) as a robustness check (Villadsen & Wulff, 2021; Wulff & Villadsen, 2020; Papke & Wooldridge, 1996). We divide our dependent variables by 100 to produce a 0–1 interval, and then implement FLR models. Model 2 of Table 6 confirm that *Majority-Owned SOE* is positively associated with *Social Disclosure Score* and that *Applicable Government Ideology* moderates the association between *Majority-Owned SOE* and *Social Disclosure Score*. Model 3 shows that neither *Majority-Owned SOE* nor its interaction with ideology have significant effects on *Environmental Disclosure Score*, revealing a lack of robustness in these relationships.

Table 6: Fractional Regression and System GMM Results.

	Fractional Logit Regression			Dynamic Panel Data (System GMM)		
	(1) Average Disc. Score	(2) Social Disc. Score	(3) Environmental Disc. Score	(4) Average Disc. Score	(5) Social Disc. Score	(6) Environmental Disc. Score
Minority-Owned SOE	0.02	−0.01	−0.01	0.62	1.02	−1.78
	(0.06)	(0.06)	(0.08)	(1.85)	(2.30)	(2.78)
Majority-Owned SOE	0.22	**0.37****	−0.37	8.44	**14.47****	6.33
	(0.17)	(0.17)	(0.22)	(6.50)	(6.93)	(6.66)
Majority-Owned SOE × App. Government Ideology	**−0.02****	**−0.03****	0.00	−1.00	**−1.52***	−0.99
	(0.01)	(0.01)	(0.01)	(0.89)	(0.91)	(0.89)
National Government Ideology	**0.16*****	0.05	**0.13*****			
	(0.04)	(0.03)	(0.05)			
Subnational Government Ideology	−0.01	−0.00	−0.02	0.09	0.23	0.06
	(0.01)	(0.01)	(0.01)	(0.26)	(0.26)	(0.31)
lagged Average Disclosure Score	**3.35*****			**0.80*****		
	(0.20)			(0.06)		
lagged Social Disclosure Score		**2.24*****			**0.65*****	
		(0.18)			(0.06)	
Environmental Disclosure Score		**1.63*****			**0.12*****	
		(0.15)			(0.05)	
lagged Environmental Disclosure Score			**2.73*****			**0.81*****
			(0.20)			(0.06)
Social Disclosure Score			**2.20*****			0.11
			(0.21)			(0.07)
Governance Disclosure Score	**0.70*****	**0.50*****	0.34	−0.11	−0.00	−0.11
	(0.19)	(0.19)	(0.26)	(0.10)	(0.10)	(0.12)
ROA	**0.01****	**0.01*****	0.00	**0.20****	0.12	**0.18***
	(0.00)	(0.00)	(0.00)	(0.08)	(0.10)	(0.09)
Size	**0.10*****	0.01	**0.14****	0.37	−0.10	−0.52
	(0.04)	(0.04)	(0.06)	(1.11)	(1.01)	(1.15)
Leverage	0.01	0.00	**0.01***	0.07	0.03	**0.10*****
	(0.00)	(0.00)	(0.00)	(0.05)	(0.05)	(0.04)
Tangibility	−0.07	0.06	0.04	3.80	6.33	2.44
	(0.10)	(0.09)	(0.11)	(5.30)	(4.57)	(5.85)
MTB	−0.00	0.00	−0.00	−0.00	0.00	−0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Recession	**−0.06****	−0.01	−0.07			
	(0.03)	(0.03)	(0.04)			
Constant	**−4.28*****	**−2.91*****	**−4.65*****	7.54	5.82	13.69
	(0.45)	(0.42)	(0.61)	(10.02)	(8.71)	(10.59)
N	1240	1240	1240	1240	1240	1240
Arellano-Bond test for AR(1) in first diff.:				$p < 0.001$	$p < 0.001$	$p < 0.001$
Arellano-Bond test for AR(2) in first diff.:				$p > 0.203$	$p > 0.174$	$p < 0.026$
Hansen test of overidentify. restrictions:				$p > 0.232$	$p > 0.474$	$p > 0.285$
Number of instruments (collapsed)				112	123	123

Notes: All models include year and firm fixed effects. Robust standard errors in parentheses. *National Gov. Ideology* and *Recession* were dropped from the system GMM models because of collinearity.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Alternative dependent variables. Considering that different CSP scores may produce different results (Berg et al., 2022), we use two other measures for our dependent variables: the Bloomberg *Social Performance Score* (models 1, 3, 5) and *S&P' Social Scores* (models 2, 4, 6). As shown in Table 7, our main results hold under different scenarios with alternative dependent variables. In Model 1, the results hold in a static panel data analysis with the full unmatched dataset. In Model 3, reporting results of a static panel data analysis with the matched sample, *Majority-Owned SOE* has a significant positive effect, but the interaction effect with *Applicable Political Ideology* is nonsignificant (p = 0.106). However, model 5 robustly confirms both effects (*Majority-Owned SOE* and its interaction with *Applicable Political Ideology*) in a fractional logit regression with the matched sample. For S&P's scores, although model 2 shows no significant effect for the interaction term with the unmatched dataset, this effect is robust with the matched dataset in models 4 and 6.

Table 7: Regression Results for Alternative Dependent Variables.

	Unmatched – Static Panel Data		Matched – Static Panel Data		Matched – Fractional Logit	
	(1) Social Performance Score	(2) S&P Social Score	(3) Social Performance Score	(4) S&P Social Score	(5) Social Performance Score	(6) S&P Social Score
Minority-Owned SOE	−0.20	**6.52****				
	(0.36)	(3.12)				
Majority-Owned SOE	**3.40****	**16.14***	**56.11***	**51.26*****	**21.74*****	**7.40*****
	(1.49)	(9.65)	(31.00)	(13.28)	(3.91)	(1.46)
Majority-Owned SOE × App. Gov. Ideology	**−0.22****	−0.51	−7.96	**−7.12*****	**−2.97*****	**−1.05*****
	(0.10)	(1.25)	(4.66)	(1.41)	(0.53)	(0.19)
National Government Ideology	**0.57****	−4.13	214.31	**626.87*****	**93.31*****	**39.00*****
	(0.28)	(3.34)	(195.79)	(174.95)	(20.16)	(13.67)
Subnational Government Ideology	−0.02	1.43	−76.22	**−223.45*****	**−33.35*****	**−13.34*****
	(0.08)	(1.10)	(71.27)	(62.37)	(7.27)	(5.03)
lagged Social Performance Score	**0.23*****		−0.16		6.70	
	(0.08)		(0.47)		(5.95)	
lagged S&P Social Score		0.13*		**−0.26***		**−2.54*****
		(0.07)		(0.13)		(0.88)
Environmental Performance Score	0.13		0.28		2.57	
	(0.09)		(0.57)		(4.06)	
Governance Performance Score	−0.14		−0.46		**−33.45*****	
	(0.13)		(0.51)		(9.66)	
S&P Environmental Score		**0.55*****		**0.60****		**4.84*****
		(0.11)		(0.22)		(1.47)
S&P Governance Score		**0.37*****		0.21		−1.45
		(0.13)		(0.43)		(1.86)
ROA	0.01	**0.13***	−0.15	−1.79	**−0.13*****	**−0.19*****
	(0.01)	(0.07)	(0.12)	(1.67)	(0.04)	(0.06)
Size	−0.36	4.93	0.49	**44.09*****	0.64	**3.70*****
	(0.37)	(3.42)	(7.61)	(14.00)	(0.46)	(1.40)
Leverage	0.01	0.07	0.06	−1.17	**0.11*****	−0.29
	(0.01)	(0.10)	(0.18)	(1.82)	(0.02)	(0.26)
Tangibility	−0.81	−3.12	0.26	84.28	**−3.48*****	**5.27***
	(1.62)	(15.62)	(9.75)	(137.70)	(1.12)	(2.95)
MTB	0.00	0.08	0.54	4.09	**0.32*****	**0.40****
	(0.00)	(0.10)	(0.42)	(2.98)	(0.07)	(0.18)
Recession	−0.10	2.14	**−1.08***	2.29	**−0.31*****	−0.09
	(0.21)	(2.10)	(0.57)	(5.29)	(0.05)	(0.17)
Constant	3.39	−27.86	−1194.07	**−3881.04*****	**−526.91*****	**−255.67*****
	(3.89)	(38.84)	(1023.49)	(905.93)	(112.93)	(84.50)
N	377	350	34	44	34	44
R^2	0.82	0.96	0.99	0.99		

Notes: All models include year and firm fixed effects. Robust standard errors in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Overall, the robustness checks provide strong support for Hypotheses 2 and 3 but only regarding the social dimension of CSP. When the state is the majority shareholder, there is a positive association between state ownership and the social dimension of CSP. In addition, the more right-leaning the government owner's political ideology, the weaker the influence of majority state ownership on the association between state ownership and the social dimension of CSP.

DISCUSSION AND CONCLUSIONS

Our study investigates how state ownership shapes CSP, focusing particularly on the moderating effects of variables that lead to heterogeneity in government influence on SOEs' goals. The empirical results constitute robust evidence that state ownership is positively associated with the social dimension of CSP, but only when the government is the majority shareholder. This phenomenon can be explained by control rights enhancing governments' ability to influence the management of SOEs. It is also consistent with the institutions-based perspective that majority state ownership is a source of institutional pressure to act in socially responsible (or not socially irresponsible) ways (Campbell, 2007). Although this finding cannot be viewed as the reverse side of the negative association between state ownership and financial performance (Megginson & Netter, 2001), it does reveal another important facet of state ownership, namely that majority state ownership may improve social performance.

The empirical results also robustly demonstrate that a government's left-leaning political ideology is associated with stronger social performance by SOEs. Conversely, the more right-leaning a government's political ideology, the lower the effect of majority state ownership on the social dimension of CSP. One possible explanation is that right-leaning governments steer SOEs toward economic-oriented goals (Aguilera et al., 2021), which may impair CSP, whereas left-leaning governments pursue CSR goals through SOEs, leading to higher CSP. A previous body of research shows that the political ideology of the incumbent

government shapes, to a certain extent, all firms' CSP, irrespective of their ownership structure, because of its impact on the institutional setting (Ioannou & Serafeim, 2012; Jackson & Apostolakou, 2010; Maignan & Ferrell, 2000), decision-making context (Rubin, 2008), and stakeholders expectations (Di Giuli & Kostovetsky, 2014). However, we argue and demonstrate that political ideology also has a distinct and additional effect by moderating the association of majority state ownership with CSP. This result constitutes the contribution of this investigation beyond what is already established in the literature.

Another interesting finding is the absence of evidence for a robust association between state ownership and the environmental dimension of CSP. Institutional pressures on SOEs in an emerging economy such as Brazil may not be equal for the social and environmental dimensions (Wang et al., 2016). In other words, the social dimension may be prioritized over the environmental dimension in a country with severe social inequality. The OECD (2021) reported that there is limited available information on the environmental performance of Brazilian companies, and that the country has failed to "strengthen the integration of environmental considerations into public policies and plans" (p. 6). This indicates that the environmental agenda is not a priority of Brazilian governments, regardless of their ideological inclination.

This paper enriches the literature in three ways. First, we answer a recent call to apply a contingency approach in studying the state ownership–CSP link (Faller & zu Knyphausen-Aufseß, 2018). We thereby help to disentangle non-convergent empirical findings by evidencing two contingencies for the influence of state ownership on CSP: the political ideology of the incumbent government that controls the SOE and the level of state involvement in the firm (majority or minority ownership). Second, we contribute to a research stream exploring the influences of state and political institutions on firms' social and financial outcomes (Aguilera et al., 2021; Bruton et al., 2015; Ioannou & Serafeim, 2012; Jackson &

Apostolakou, 2010; Lazzarini & Musacchio, 2018). Third, we answer a call for CSP research in emerging economies, aiming to capture distinct institutional contexts with heterogeneous pressures to achieve CSP (Wang et al., 2016).

Our research has implications for policy and practitioners. We show that majority-owned SOEs have higher CSP on the social dimension than their counterparts. These findings could help governments and policy makers better assess the implications of state ownership not only from a financial perspective but also from the prism of firms' social responsibility. Investors could also consider these findings when making decisions, given the growing importance of CSP.

Our study has three main limitations. First, although we highlight that legitimacy pressures "can result in decoupling processes whereby corporate responses to external demands vary in the extent to which they are symbolic or substantive" (Marquis & Qian, 2014), we do not explore the differences in symbolic and substantive CSP. This is a promising subject for future studies. Second, although our theoretical arguments recognize the role of political ideology at the individual level, our empirical design measures only the government's ideology and assumes that this pushes SOE executives and directors to hold similar ideologies. Future research should investigate the effects of ideology at the individual level. Lastly, although our dependent variables are suitable for our research purposes, they do not capture the social impacts of some SOEs' behaviors and outcomes, such as underpricing products or overemploying (Aharoni, 1981; Lazzarini & Musacchio, 2018; Ramamurti, 1987). Instead, they reflect general CSP aspects that are common and comparable across listed firms, regardless of their ownership types and specific engagement in ESG policies. Further research should develop strategies to measure the outcomes of the actions and behaviors of SOEs as public policy executors.

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