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Comparative analysis of shareholder vs stakeholder orientation: A study of U.S. and German companies

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Abstract

The current dissertation aims to analyze the evolving orientation of corporate governance in the U.S. and Germany, focusing on the balance between shareholder and stakeholder interests. The study builds on the longstanding debate between shareholder primacy, as advocated by Friedman (1970), and stakeholder theory, as argued by Freeman (1984). While U.S. companies traditionally prioritize shareholder value maximization (Jackson, 2010), German firms are often characterized by a stakeholder-oriented approach, largely influenced by institutional frameworks such as codetermination laws (Hall & Soskice, 2001). However, recent trends, including the growing importance of Environmental, Social, and Governance (ESG) factors, the impact of the COVID-19 pandemic and the Business Roundtable statement (2019), have raised questions about potential shifts in corporate priorities.

Based on a panel dataset comprising 102 U.S. firms and 61 German firms covering the period from 2015 to 2023, the analysis reveals the persistence of two structurally distinct governance models. In the U.S., value distribution remains strongly tied to financial performance, reinforcing a shareholder-centered model. In Germany, despite the institutional embedding of stakeholder representation, the allocation of value remains driven by firm-level financial dynamics, reflecting an adaptive but stable stakeholder-oriented framework.

The results also indicate that neither ESG performance nor the COVID-19 crisis prompted significant structural change in corporate orientation in either country. While some targeted adjustments were observed, these shifts did not alter the fundamental logic of each governance model. These findings contribute to the corporate governance literature by highlighting the enduring influence of national institutional contexts in shaping firm behavior and by tempering expectations about the transformative power of ESG and crisis-induced pressures.

Keywords: Corporate Governance; Shareholder Orientation; Stakeholder Theory; Codetermination; ESG; Institutional Comparison; Germany; U.S; COVID-19; Value Distribution.

JEL Classification: G30, G32, M14, P51, Q56

Sumário

A presente dissertação tem como objetivo analisar a evolução da orientação do governo societário nos EUA e na Alemanha, com especial enfoque no equilíbrio entre os interesses dos acionistas e dos restantes stakeholders. O estudo assenta no debate duradouro entre a primazia dos acionistas, defendida por Friedman (1970), e a teoria dos stakeholders, sustentada por Freeman (1984). Enquanto as empresas norte-americanas tradicionalmente privilegiam a maximização do valor para os acionistas (Jackson, 2010), as empresas alemãs são frequentemente caracterizadas por uma abordagem orientada para os stakeholders, fortemente influenciada por enquadramentos institucionais como as leis de codeterminação (Hall & Soskice, 2001). Contudo, tendências recentes, como a crescente relevância dos fatores Ambientais, Sociais e de Governação (ESG), o impacto da pandemia de COVID-19 e a declaração da Business Roundtable (2019), suscitaram novas questões sobre eventuais mudanças nas prioridades corporativas.

Com base num painel de dados composto por 102 empresas dos EUA e 61 empresas da Alemanha, abrangendo o período entre 2015 e 2023, esta dissertação revela a persistência de dois modelos de governação corporativa estruturalmente distintos. Nos EUA, a distribuição de valor permanece fortemente orientada pelo desempenho financeiro, refletindo a continuidade de um modelo centrado nos acionistas. Já na Alemanha, embora exista uma estrutura institucional de representação dos stakeholders, a alocação de valor também continua a ser guiada por variáveis financeiras, refletindo um modelo orientado para os stakeholders que se mantém estável, mas suficientemente adaptável às condições internas das empresas.

Os resultados indicam ainda que nem o desempenho ESG nem a pandemia da COVID-19 provocaram alterações estruturais nas orientações corporativas. Embora se tenham verificado alguns ajustamentos pontuais, estes não modificaram a lógica central de cada modelo. Assim, o estudo evidencia o papel determinante dos contextos institucionais na moldagem do comportamento empresarial.

Palavras-Chave: Governo das Empresas; Orientação para os Acionistas; Teoria dos Stakeholders; Codeterminação; ESG; Comparação Institucional; Alemanha; Estados Unidos; COVID-19; Distribuição de Valor.

Classificação JEL: G30, G32, M14, P51, Q56

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1. Introduction

The debate between shareholder and stakeholder orientation has long dominated corporate governance. The shareholder perspective, popularized by Friedman (1970), argues that a firm's primary responsibility is to maximize shareholder value within legal and ethical boundaries. This model has significantly influenced corporate practices in market-driven economies like U.S., where firms prioritize financial returns and maximizing shareholder wealth (Jackson, 2010). On the other hand, the stakeholder approach, propagated by Freeman (1984), suggests that businesses should consider a broader range of interests, including employees, customers, suppliers, and the wider community. Germany is often characterized as the paradigm of stakeholder orientation, particularly due to its codetermination laws, which grant employees significant influence in corporate decision-making, ensuring a balance primarily between shareholder and employee interests within its corporate governance framework (Hall & Soskice, 2001).

The increasing focus on corporate sustainability and Environmental, Social, and Governance (ESG) factors and the Business Roundtable statement (2019) has heightened the relevance of this debate. In recent years, investors and regulators have pushed for greater accountability from firms, urging them to adopt stakeholder-oriented policies (Ioannou & Serafeim, 2019). Empirical studies suggest that when ESG practices are strategically embedded, they can enhance long-term financial performance and contribute to risk mitigation (Matos, 2020; Pedersen et al., 2021). However, recent research has raised concerns about the coherence, measurability, and real impact of ESG scores, highlighting issues such as lack of standardization, greenwashing, and the gap between formal commitment and actual behavioral change (Alves & Fontes-Filho, 2022; Alves, 2023; Gillan et al., 2021).

The COVID-19 pandemic further underscored the importance of resilient corporate strategies that accommodate the interests of multiple stakeholders. Firms that actively engaged with employees, communities, and other stakeholders through responsible practices were better positioned to withstand the disruption, suggesting that stakeholder orientation may enhance organizational adaptability during crises (Mahmud et al., 2021). However, despite these developments, the extent to which firms in the U.S. and Germany have adapted their corporate governance models remains an open question.

Despite the increased academic and political interest in stakeholder-oriented governance, there is limited empirical evidence on how companies allocate value among their key stakeholders over time. Existing studies often rely on ESG ratings or non-financial indicators, such as carbon emissions or governance disclosures, as proxies for stakeholder engagement, but these measures are frequently criticized for their subjectivity, lack of standardization, and limited grounding in financial data (Afzali et al., 2022; Duesing & White, 2013; Gao et al., 2021; Gu & Zhang, 2022; Li & Lu, 2022). In response to these limitations, Alves (2022) proposes a novel metric based on financial reporting that allows for an objective and dynamic assessment of corporate orientation, addressing a critical gap in the existing literature.

Building on this methodological innovation, this dissertation applies the model developed by Alves (2022) to measure firms' orientation toward shareholders and stakeholders using standardized financial data. The analysis is based on a panel dataset comprising 163 non-financial companies, 102 from the U.S. and 61 from Germany, covering the period from 2015 to 2023. Through this approach, the study assesses how these firms evolved in their internal distribution of value and identifies the key factors influencing corporate orientation across both economies. The analysis also examines the role of Environmental, Social, and Governance (ESG) performance through a quartile-based comparison to assess how ESG scores relate to firms' stakeholder orientation and includes a COVID-19 dummy variable that assumes the value of 1 for the years 2020 and 2021 to capture the impact of the pandemic. These two components allow a deeper understanding of how recent developments may have influenced value distribution patterns under distinct governance regimes.

The results reveal the persistence of two distinct governance models. In the U.S., value allocation remains closely tied to financial performance, with profitability and solvency reinforcing shareholder claims, consistent with the logic of shareholder primacy (Friedman, 1970; Graham et al., 2005; Jackson, 2010). ESG performance shows a limited influence on broader stakeholder outcomes, but firms with higher ESG scores appear to benefit from reduced interest-related costs, suggesting enhanced financial credibility (Alves & Meneses, 2024; Ioannou & Serafeim, 2019), and while the pandemic led some firms to reallocate value toward employees and the state, these shifts were neither robust nor sustained. On the other hand, German companies exhibit a balanced pattern of distribution that also responds to

internal financial dynamics, challenging the notion of a rigid stakeholder model. The pandemic prompted a measurable reduction in creditor-related flows, reinforcing the country's institutional commitment to employee protection (Hall & Soskice, 2001; Vitols, 2001). ESG performance in Germany had minimal impact, reflecting its structural integration within corporate behavior (Matten & Moon, 2008). A robustness check confirms the stability of these patterns. It reveals that U.S. firms, despite their shareholder focus, demonstrated a relatively greater reinforcement of employee value under comparable financial conditions, highlighting the adaptive capacity of both systems.

These findings contribute to the corporate governance literature in several ways. First, by applying a novel financial-based metric to measure corporate orientation (Alves, 2022), this study offers an objective and dynamic perspective on how firms in the U.S. and Germany have evolved in their allocation of value to key stakeholders between 2015 and 2023. This longitudinal approach moves beyond static ESG scores or declarative commitments and captures the real economic flows underlying governance choices. Second, by contrasting two institutional contexts, the study demonstrates how structurally different governance systems react to external shocks, such as the COVID-19 pandemic, offering empirical insight into the resilience and adaptability of stakeholder models under stress. Third, the research deepens the understanding of ESG performance by showing that its tangible effects on value distribution are conditioned by institutional context, highlighting the limits of universal claims regarding its transformative capacity. Overall, the study enriches ongoing debates on stakeholder capitalism with empirical depth and comparative insight.

This dissertation will thus be structured as follows. Chapter 2 presents a comprehensive literature review, outlining the theoretical foundations of shareholder and stakeholder theory, comparing the U.S. and German corporate governance models, and discussing existing approaches to measuring corporate orientation. Chapter 3 is divided into three subsections, beginning with the formulation of the research questions, followed by a detailed description of the data employed and the methodological framework based on the model developed by Alves (2022). Chapter 4 presents the empirical findings, including descriptive statistics, regression results, ESG quartile-based comparisons, and robustness tests based on Propensity Score Matching. Finally, Chapter 5 concludes the dissertation by summarizing the main insights derived from the analysis, limitations and outlining potential avenues for future research.

2. Literature Review

2.1. The Shareholder-Stakeholder Debate in Corporate Governance

The debate between shareholder and stakeholder orientation is one of the most enduring and complex topics in corporate governance and has been significantly influenced by the contributions of Friedman and Freeman. Each perspective offers a distinct framework for understanding corporate purpose, governance, and the balance of interests within a corporation.

Friedman's shareholder theory (1970) argues that the sole responsibility of a business is to maximize shareholder wealth within the boundaries of law and ethical customs. Friedman posits that social responsibilities and considerations beyond profit generation distract from the firm's primary purpose, effectively imposing a "tax" on shareholders without their consent. This view has been widely adopted in market-based economies, shaping corporate behavior and governance practices, particularly in the U.S.

Freeman's stakeholder theory (1984) directly challenges Friedman's perspective. Freeman argues that corporations have responsibilities to a broader range of stakeholders, including employees, customers, suppliers, and the community. He suggests that long-term success is best achieved by addressing the needs and expectations of these groups, emphasizing that businesses operate within a network of relationships that extend beyond shareholders.

During the 1990s, the shareholder-stakeholder debate gained further complexity. Donaldson and Preston (1995) introduced a tripartite framework for stakeholder theory, distinguishing between its descriptive, instrumental, and normative dimensions. While the descriptive aspect explains how corporations operate, the instrumental dimension demonstrates that effective stakeholder management can enhance financial performance. The normative component underscores the ethical imperatives for considering stakeholder interests. Mitchell, Agle, and Wood (1997) added depth to the discussion with their stakeholder salience model, prioritizing stakeholders based on power, legitimacy, and urgency. They argue that stakeholder identification is dynamic, and firms should allocate attention based on the degree to which stakeholders possess these attributes. Stakeholders with all three characteristics, known as definitive stakeholders, demand immediate managerial attention, while those with only one or two attributes may hold varying levels of influence over corporate decisions. This model provided critical tools for navigating the complexities of

competing interests, offering a structured approach to stakeholder prioritization in corporate governance and strategic management.

The early 2000s saw efforts to reconcile these perspectives. Jensen (2002) introduced the concept of "enlightened value maximization", arguing that firms should focus on long-term value creation as their ultimate objective while recognizing the importance of addressing stakeholder interests. This approach integrates stakeholder concerns within a shareholder-oriented framework by emphasizing that considering stakeholders' needs is instrumental in maximizing overall firm value. This perspective aligns with regulatory frameworks such as the UK Companies Act 2006, which introduced the concept of "enlightened shareholder value" (ESV). Under Section 172, directors are required to consider stakeholder interests to support long-term shareholder value creation. While the Act maintains shareholder primacy, it integrates stakeholder considerations as essential for sustainable corporate decision-making. Similarly, Porter and Kramer's (2011) "Creating Shared Value" framework redefined the relationship between corporate profitability and societal impact by emphasizing that addressing societal needs can drive innovation, resource efficiency, and competitive advantage within business strategy.

Empirical studies have consistently demonstrated the interplay between stakeholder engagement and financial performance. Hillman and Keim (2001) found that firms with strong stakeholder relationships often gain competitive advantages, such as enhanced reputations and customer loyalty, contributing to superior financial performance. However, they distinguish between stakeholder management, which positively influences shareholder value creation, and broader social issue participation, which does not necessarily lead to financial benefits unless strategically aligned with the firm's core business. Orlitzky et al. (2003) conducted a meta-analysis linking corporate social responsibility (CSR) to improved financial outcomes, challenging the traditional view that social initiatives necessarily detract from profitability. Their findings suggest that strategically integrated CSR positively correlates with financial performance, primarily through enhanced reputation, stakeholder trust, and risk mitigation. However, they also note that the financial benefits of CSR depend on how effectively it is embedded within a firm's overall strategy.

Surroca et al. (2010) highlighted how intangible resources, such as social capital, mediate the relationship between stakeholder engagement and firm performance by acting as a buffer that enhances trust, collaboration, and reputational advantages. Their study demonstrated

that corporate responsibility practices, often linked to strong stakeholder relationships, contribute to accumulating intangible assets like goodwill and credibility. These assets, in turn, mediate the relationship between stakeholder engagement and financial outcomes by fostering loyalty, reducing risks, and creating a competitive edge.

The shareholder-stakeholder dichotomy intersects with discussions on corporate purpose. Recent initiatives, such as the Business Roundtable's 2019 statement redefining the purpose of a corporation, signify a shift toward stakeholder-oriented governance. This declaration, signed by 181 CEOs, advocates balancing the needs of shareholders with broader societal responsibilities (Business Roundtable, 2019).

However, empirical evidence from Alves and Fontes-Filho (2022) challenges the sincerity of this commitment. Using a difference-in-differences approach, their study finds that, despite the public rhetoric, CEO incentives remained unchanged, and total compensation increased significantly among signatory firms, particularly through stock-based rewards. At the same time, shareholder returns declined, while operational efficiency metrics such as ROA and operating income over assets remained unaffected. These findings suggest that the stakeholder discourse may have legitimized value redistribution in favor of management, without leading to meaningful governance reforms or enhanced stakeholder outcomes.

Contemporary studies continue to expand the boundaries of the debate. Kaptein (2025) explored the reconciliation of shareholder and stakeholder theories, proposing that serving stakeholders effectively contributes to shareholder value. Valentinov (2023) reinterprets stakeholder theory through the lens of classical institutional economics, highlighting its relevance for understanding the institutional coordination of social provision. By bridging these conceptual traditions, the paper emphasizes the evolving nature of stakeholder theory and its role in addressing complex organizational and societal challenges. Furthermore, Freeman, Harrison, and Zyglidopoulos (2018) emphasized embedding stakeholder considerations into strategic decision-making processes, particularly in industries with high social and environmental impact. Their work highlights how firms that proactively engage with stakeholders can enhance long-term value creation and mitigate risks associated with sustainability challenges.

While stakeholder theory has gained traction, critiques persist. Sundaram and Inkpen (2004) raised concerns about trade-offs and inefficiencies in balancing diverse stakeholder interests.

Bebchuk and Tallarita (2020) argued that stakeholder-oriented governance lacks precise accountability mechanisms, potentially enabling managerial opportunism. These debates highlight the complexities of operationalizing stakeholder theory in practice.

The shareholder-stakeholder debate has evolved into a complex and multidimensional discussion, marked by both theoretical developments and empirical scrutiny. It remains a core element of corporate governance research, shaping how firms navigate competing interests and define their broader responsibilities.

2.2. Global Challenges and the Effectiveness of ESG Integration in Corporate Governance

Global challenges such as climate change, social inequality, and technological disruption have increasingly shaped the discussion around corporate governance. Empirical studies highlight the evolution of stakeholder theory as a robust framework for addressing these issues. For instance, Harrison and Wicks (2013) expanded the concept of stakeholder value creation, emphasizing the importance of non-financial benefits derived from stakeholder engagement. Research by Freeman et al. (2020) clarified misconceptions about stakeholder theory, asserting its relevance as a holistic approach to business strategy rather than a mere extension of CSR. Furthermore, Mahmud et al. (2021) examined how CSR initiatives enhanced corporate resilience during the COVID-19 pandemic. Based on an analysis of CSR leaders in the United States, firms that actively engaged with stakeholders, including employees, customers, and communities, through various CSR initiatives were better positioned to navigate disruptions, maintain operational stability, and sustain long-term value creation. The study highlights that a stakeholder-focused approach, supported by CSR actions such as financial aid, protective measures for employees, and community support programs, fosters trust, adaptability, and organizational resilience, ultimately strengthening firms' ability to withstand external shocks.

Integrating ESG metrics has further entrenched stakeholders' considerations in corporate decision-making. Ioannou and Serafeim (2019) highlight that sustainability practices converge within industries over time, as firms respond to competitive pressures and stakeholder expectations. While commonly adopted ESG practices become industry norms, distinguishing between common and strategic sustainability practices is crucial. The study

finds that firms engaging in strategic ESG initiatives, less widely adopted and more embedded in corporate strategy, tend to experience superior financial performance. This suggests that ESG can be a source of competitive differentiation rather than merely a compliance requirement. Albuquerque, Koskinen, Yang, and Zhang (2020) found that firms with high Environmental and Social (ES) ratings showed greater resilience during the COVID-19 market crash, experiencing higher stock returns and lower volatility than peers with weaker ES profiles. More recently, Alves and Meneses (2024) provide evidence that stronger ESG performance is associated with lower debt costs, especially in market-based financial systems, highlighting ESG as a relevant factor in reducing perceived risk and agency costs.

Nevertheless, the effectiveness of ESG practices is contested. Alves (2023) provides a critical perspective, questioning the coherence, measurability, and actual impact of ESG. He highlights that ESG scores often reward size and geographic origin rather than true sustainability and raises ethical concerns about whether investors should define a company's purpose without democratic legitimacy. Moreover, the lack of standardization, the presence of endogeneity issues, and the susceptibility to greenwashing challenge the credibility of ESG as a transformative tool.

Critics such as Bebhuk and Tallarita (2020) argue that many companies claiming to adhere to stakeholder capitalism fail to implement meaningful changes in corporate governance, maintaining a shareholder-centric approach. Supporting this critique, Gillan et al. (2021) highlight that high ESG scores do not always correspond to meaningful shifts in stakeholder-oriented practices, reflecting inconsistency between ESG ratings and corporate behavior. On the other hand, Matos (2020) and Pedersen et al. (2021) provide evidence that when ESG practices are efficiently integrated, they can enhance a firm's financial performance while also addressing stakeholder interests, suggesting that ESG has the potential to bridge the gap between shareholder and stakeholder priorities when implemented effectively. Similarly, Eccles et al. (2014) highlighted the growing influence of Environmental, Social, and Governance (ESG) criteria, demonstrating that firms adopting ESG practices often outperform their peers in the long run.

Despite these challenges, the shareholder-stakeholder debate remains a cornerstone of corporate governance research. By integrating historical foundations with contemporary advancements, this discussion continues to shape how corporations navigate their societal

roles. As global crises and stakeholder expectations evolve, future research will likely explore new intersections, such as the role of artificial intelligence in stakeholder management or the implications of regulatory changes on governance models.

2.3. U.S. and German Corporate Governance Models

The comparison between the corporate governance models of the U.S. and Germany highlights two distinct approaches to balancing shareholder and stakeholder interests, shaped by historical, cultural, and institutional factors. The U.S. is emblematic of a shareholder-oriented system, prioritizing value maximization for investors (Jackson, 2010).

At the same time, Germany exemplifies a stakeholder-oriented framework, emphasizing employee participation in corporate governance through the codetermination system (*Mitbestimmung*), which legally requires worker representation on supervisory boards (Hall & Soskice, 2001).

The U.S. model is rooted in the principles of shareholder primacy, as articulated by Friedman (1970), where the primary obligation of firms is to maximize shareholder wealth. This model is deeply rooted in a market-driven framework, where financial markets play a central role in shaping corporate behavior. Fama (1980) contended that stock prices, managerial labor markets, and internal governance structures help mitigate managerial opportunism by aligning shareholder expectations with corporate governance metrics in an efficient market. Jackson (2010) describes the U.S. corporate governance model as strongly shareholder-oriented, emphasizing independent boards, executive compensation tied to firm performance, and an active market for corporate control as mechanisms to align management with shareholder interests. However, several limitations are also highlighted, such as the declining effectiveness of the market for corporate control due to anti-takeover regulations, challenges in ensuring board independence, and the continued influence of CEOs over board nominations. In response to governance failures such as the Enron and WorldCom scandals, regulatory interventions like the Sarbanes-Oxley Act (SOX) were introduced. While SOX improved oversight, structural governance challenges remain in the U.S. corporate system, particularly regarding managerial accountability and the risks associated with an excessive focus on shareholder value.

Furthermore, La Porta et al. (1998) highlighted that the U.S., with its common law tradition, provides strong legal protections for minority shareholders, primarily through shareholder rights and effective enforcement mechanisms. These legal and governance structures contribute to a system where investors exert stronger oversight over managerial decisions, fostering greater transparency and alignment with shareholder interests. This contrasts with civil law systems, which tend to place greater emphasis on a broader range of stakeholders, such as employees and creditors.

In contrast, Germany exemplifies a coordinated market economy, characterized by institutional structures that foster collaboration primarily between firms and employees. Hall and Soskice (2001) classified Germany within the “Varieties of Capitalism” framework, emphasizing its cooperative approach to economic governance. A distinctive feature of German corporate governance is the codetermination system, which legally requires employee representation on supervisory boards. This structure ensures that workers’ voices are considered in strategic decisions, reflecting a broader commitment to balancing stakeholder interests. Aguilera and Jackson (2003) further noted that Germany’s governance system integrates long-term relationships with stakeholders, such as banks, which play a central role in monitoring and supporting firms by providing financing and oversight, reinforcing a governance model prioritizing stability and sustained corporate growth.

Empirical studies highlight the implications of these differences. Vitols (2001) compared corporate governance in Germany and the U.K., finding that German firms prioritize employment stability and stakeholder engagement over short-term profitability. This contrasts with the U.S., where firms are more susceptible to pressures for quarterly earnings performance, as illustrated by Graham et al. (2005), who found that U.S. executives often prioritize meeting short-term earnings targets over long-term value creation. Their study revealed many managers would make decisions, such as reducing discretionary spending or cutting R&D investments, to meet quarterly profit expectations, highlighting the dominant focus on short-term financial performance in U.S. firms. Jackson et al. (2004) examine the German corporate governance system and note that its strong stakeholder orientation, particularly through mechanisms like codetermination, supports long-term employment relationships and collaborative industrial relations. These features have historically contributed to the resilience of German firms during economic downturns, promoting employment stability and a focus on long-term strategic planning.

Matten and Moon (2008) distinguish between implicit and explicit Corporate Social Responsibility (CSR) to explain differences in corporate governance between Germany and the U.S. In Germany, CSR is implicit, and embedded within legal frameworks, labor relations, and institutional norms, meaning that companies fulfill social responsibilities as part of institutionalized obligations rather than voluntary initiatives. This reflects Germany's stakeholder-oriented governance, where firms operate within structured societal expectations. In contrast, CSR in the U.S. is explicit, with companies voluntarily adopting sustainability programs and social initiatives, driven by market forces and strategic positioning beyond stakeholder expectations. This aligns with U.S. corporate governance's market-driven and shareholder-centric nature, where firms proactively engage in CSR as a competitive tool in a less regulated environment.

Despite these contrasts, convergence trends have emerged as corporate governance systems adapt to global economic pressures. Goergen, Manjon, and Renneboog (2008) analyze whether the German corporate governance model is shifting towards the Anglo-American system, highlighting legal reforms and the adoption of certain shareholder-oriented governance mechanisms, while noting that key features of the German system, such as codetermination, have remained intact. Similarly, Lane (2003) examines structural changes in German corporate governance and highlights how financial market liberalization and institutional investor expectations have pressured firms to adopt certain shareholder-oriented practices. However, despite these external influences, fundamental aspects of the German system, such as codetermination, remain resilient, reflecting the enduring characteristics of its governance model. On the other hand, Shin et al. (2022) demonstrate how U.S. firms have increasingly shifted from a shareholder-oriented governance model to a more stakeholder-focused approach, particularly since the early 2000s. This transition is reflected in changing CEO accountability, where executives are now less penalized for engaging in stakeholder-friendly practices and more constrained in pursuing aggressive shareholder-value-maximizing strategies, signaling a broader evolution in corporate governance dynamics.

The U.S. shareholder-oriented, and German stakeholder-oriented models offer contrasting approaches to corporate governance, rooted in distinct institutional and cultural contexts. While each system has strengths and weaknesses, their ongoing evolution highlights the

dynamic interplay between shareholder and stakeholder priorities in shaping modern corporate practices.

2.4. Metrics for Measuring Corporate Orientation

A significant challenge in this field of research is the lack of an objective method to measure a company's orientation toward its stakeholders. Commonly used indices, such as ESG scores, integrate quantitative and qualitative data, introducing subjectivity and potential biases (Afzali et al., 2022). These metrics often rely on psychometric scales (Duesing & White, 2013) or non-financial indicators, including carbon emissions and corporate governance documents, such as bylaws (Gao et al., 2021; Gu & Zhang, 2022; Li & Lu, 2022).

While these approaches provide valuable insights into corporate behavior, they are limited by their lack of grounding in standardized financial reporting. This limitation reduces their ability to quantify how firms balance stakeholder and shareholder priorities. Addressing this issue requires the development of objective measures rooted in economic and financial data, which would improve comparability across firms and allow for a more consistent evaluation of stakeholder orientation over time.

Within this context, Alves (2002)' proposed metric seeks to overcome these limitations. Alves (2022) contends that current indices fail to capture a firm's evolving orientation because they rely on non-financial data and qualitative assessments (Afzali et al., 2022). In response, Alves' study introduces a metric based on financial reporting, allowing for the quantification and tracking of changes in corporate orientation over time. By focusing on financial data, this metric provides a standardized and objective approach, addressing a critical gap in the literature.

The author applied this approach to a sample of 775 non-financial European firms from 2013 to 2021. The results reveal clear trends in how firms prioritize stakeholders versus shareholders, highlighting the dynamic shifts in response to external pressures such as regulatory changes and social expectations. This model makes a significant academic contribution by proposing a new metric and offering empirical evidence on the evolution of corporate orientation.

Current literature demonstrates that, while traditional metrics for shareholders and stakeholders have well-documented limitations, Alves (2002)' proposed metric represents a

significant step forward in objectively and dynamically capturing corporate orientation. This contribution enriches the academic framework and provides a practical tool to understand better companies' priorities. It underscores the importance of continued development of measures that balance simplicity, objectivity, and the ability to capture the complexities of modern corporate orientation.

Utilizing this metric allows for the analysis of how companies in the U.S. and Germany, two economies with long-standing and distinctly different governance systems, have evolved their orientations in recent years. By providing an objective and dynamic lens, this study enables a deeper understanding of how contemporary trends, such as the integration of ESG principles, the disruptions brought by the COVID-19 pandemic, and broader societal and regulatory pressures, have shaped corporate priorities. This application captures the shifts in governance practices and contextualizes them within the unique institutional frameworks of these two countries, offering valuable insights into the interplay between global challenges and corporate behavior.

3. Research Questions, Data and Methodology

3.1. Research Questions

The shareholder-stakeholder orientation of firms has been extensively discussed in corporate governance literature, with U.S. and Germany often representing contrasting governance systems. U.S. follows a shareholder-centric model, emphasizing short-term financial returns and shareholder value maximization (Friedman, 1970; Jackson, 2010). In contrast, Germany operates within a stakeholder-oriented framework, characterized by codetermination and long-term stability (Hall & Soskice, 2001; Aguilera & Jackson, 2003). However, recent globalization trends and evolving market pressures have blurred these distinctions, raising questions about how these models have evolved. Existing literature lacks empirical analysis on whether Germany has maintained its stakeholder focus or shifted toward shareholder priorities, and whether the U.S. has moved closer to a stakeholder-oriented governance structure. Therefore, the first research question is:

Q1: *How have companies in U.S. and Germany evolved in their orientation toward shareholders and stakeholders between 2015 and 2023, and what are the main drivers behind these differences?*

The COVID-19 pandemic created unprecedented challenges for corporate governance, compelling firms to reassess their strategic priorities. Mahmud et al. (2021) found that companies adopting a stakeholder-oriented approach, reinforced by CSR initiatives such as employee protection measures and community support, demonstrated greater resilience and long-term stability during crises. However, the extent to which firms broadly embraced this shift remains unclear. In the context of the pandemic, did firms in U.S. and Germany prioritize stakeholder engagement to enhance adaptability, or did they reinforce shareholder primacy to secure financial survival? This leads to the second research question:

Q2: *How did the COVID-19 pandemic influence the orientation of firms in U.S. and Germany toward shareholders versus stakeholders?*

Environmental, Social, and Governance (ESG) factors have become a key indicator of corporate commitment to stakeholders. Firms with higher ESG scores are often perceived as more stakeholder-oriented, but empirical evidence suggests mixed results. While Matos (2020) and Pedersen et al. (2021) find that well-integrated ESG practices align shareholder and stakeholder interests, Gillan et al. (2021) argue that high ESG scores do not necessarily translate into meaningful shifts in corporate governance priorities. Furthermore, the extent

to which ESG influences corporate orientation may vary across governance models. This leads to the third research question:

Q3: *How does the ESG performance of companies in U.S. and Germany impact their orientation toward shareholders versus stakeholders? Do firms with higher ESG scores exhibit a more balanced orientation between shareholders and stakeholders than firms with lower ESG scores?*

3.2. Data

The sample used in this study was constructed based on two data sources. Refinitiv Eikon Datastream was used to collect ESG indicators, and the firm's financial data was retrieved from Orbis Europe.

The initial selection of companies was based on stock market indices representative of each country's corporate landscape. For the U.S., firms listed in the S&P 500 index were considered, as this index includes the largest and most influential companies across all sectors of the U.S. economy. For Germany, the selection was drawn from companies listed in the DAX 40 and MDAX indices, including both large-cap and mid-cap firms, providing a balanced overview of the German corporate environment. These indices were chosen to ensure comparability in terms of firm size, relevance, and economic representativeness.

The data collection covers the period from 2015 to 2023. Only companies with ESG scores available for at least five consecutive years within this time frame were included. This criterion ensures a stable reporting pattern over time, reducing the risk of distortions caused by isolated disclosures or missing values, and enhancing the reliability of the ESG-related findings. In line with standard practice in the literature, firms operating in the financial sector (e.g., banks and insurance companies) were excluded, due to their unique balance sheet structures and regulatory environment. Firms with missing or incomplete financial data necessary for the implementation of the model were also excluded. Additionally, only firms present in both databases were retained.

The filtering process resulted in a final sample of 163 non-financial companies from both countries, comprising 102 firms from the U.S. and 61 from Germany. This corresponds to a total of 1467 firm-year observations, with 918 referring to U.S. firms and 549 to German firms.

3.3. Methodology

The methodological foundation of this study is based on the framework developed by Alves (2022), which provides a structured way to analyze how firms balance the interests of shareholders and other stakeholders. Traditional corporate finance models often assume that firms aim solely to maximize shareholder value. However, this model acknowledges that firms operate within a broader social and economic environment, where stakeholders such as employees, suppliers, governments, and communities also play a crucial role. By recognizing this dynamic, the model establishes a mechanism to measure how firms allocate value among these groups over time, allowing for an empirical assessment of the degree to which firms prioritize shareholder or stakeholder interests.

The model assumes that firms operate with a production function defined as:

$$f(Z) = AK^\alpha \prod_{i=2}^I Z_i^{\beta_i} \quad (3.1)$$

Here, $f(Z)$ represents the firm's total output, such as revenue, profit, or value-added. Term K denotes the capital shareholders contribute, while Z_i captures the inputs other stakeholders provide, such as labor, materials, or other resources. The parameters α and β_i represent the elasticities of output with respect to shareholder capital and stakeholder inputs, respectively, indicating their relative contributions to the production process. Finally, A is a scale factor, reflecting the firm's technological efficiency. This functional form is particularly useful because it allows for estimating marginal contributions from each input, enabling a quantitative understanding of the role of different stakeholders in generating value and how this balance evolves.

In traditional corporate finance, the firm maximizes profits, defined as:

$$\text{Max } pf(z) - rK - w_2Z_2 - \dots - w_nZ_n \quad (3.2)$$

However, the Alves (2002)' model incorporates a redefined corporate objective. Instead of maximizing profits, the firm seeks to balance shareholder returns with the value generated for other stakeholders. This is formalized in a modified objective function, where the firm maximizes a linear combination of shareholder profit and stakeholder value. The objective function can be written as:

$$c_s (pf(z) - rK - w_2Z_2 - \dots - w_nZ_n) + c_2w_2Z_2 \dots + c_nw_nZ_n \quad (3.3)$$

In this expression, c_s represents the weight assigned to shareholder profit, while c_i denotes the weight assigned to stakeholder i . The term $pf(z)$ is the firm's total revenue, while rK and w_iZ_i represent the costs of shareholder capital and stakeholder inputs. The first term in the equation, scaled by c_s , reflects the value captured by shareholders, whereas the second term, scaled by c_i , reflects the value generated for stakeholders.

To simplify and normalize this objective function, the weights c_s and c_i are combined into a single parameter s_i , defined as:

$$s_i = \frac{c_s - c_i}{c_s} \quad (3.4)$$

The parameter s_i captures the firm's relative emphasis on shareholders versus stakeholder i . When $s_i = 1$, the firm is entirely focused on shareholders, while lower values of s_i indicate a greater balance in favor of stakeholders. Substituting s_i into the objective function yields:

$$pf(z) - rK - s_2w_2Z_2 - \dots - s_nw_nZ_n \quad (3.5)$$

This formulation allows a quantitative assessment of how firms balance these competing interests.

The firm optimizes its input allocation to maximize this objective function. The conditions for optimization are:

$$\frac{\partial f(Z)}{\partial K} = \frac{r}{p}, \quad \frac{\partial f(Z)}{\partial Z_i} = \frac{s_i w_i}{p} \quad (3.6)$$

These conditions demonstrate that the marginal product of capital is proportional to its cost, while the marginal product of stakeholder inputs depends on the stakeholder weight s_i .

The marginal rate of substitution between any two inputs can thus be expressed as:

$$\frac{\frac{\partial f(Z)}{\partial Z_i}}{\frac{\partial f(Z)}{\partial K}} = s_i \frac{w_i}{r} \quad (3.7)$$

By comparing the marginal products of different inputs, this expression quantifies the trade-offs the firm makes between shareholder and stakeholder resources.

A key innovation of the model is the introduction of the γ metric, which measures changes in the firm's orientation toward stakeholders over time. Specifically, γ compares the relative emphasis on stakeholder i between two periods, t_0 and t_1 , and is defined as:

$$\gamma_{t_0,t_1} = \frac{s_{i,t_1}}{s_{i,t_0}} \quad (3.8)$$

The metric is constructed by examining the ratio of stakeholder weights at different points in time.

Expanding s_i using the Cobb-Douglas framework, it can be expressed as:

$$\frac{\beta_i}{\alpha} \frac{K r}{Z_i w_i} = s_i \quad (3.9)$$

Substituting this into the definition of γ , the equation becomes:

$$\gamma_{t_0,t_1} = \frac{s_{i,t_1}}{s_{i,t_0}} = \frac{\frac{\beta_i}{\alpha} \frac{K_{t_1} r_{t_1}}{Z_{i,t_1} w_{i,t_1}}}{\frac{\beta_i}{\alpha} \frac{K_{t_0} r_{t_0}}{Z_{i,t_0} w_{i,t_0}}} \quad (3.10)$$

Assuming that the firm's prices and stakeholder preferences evolve while the underlying technology remains unchanged, the parameters α and β are held constant across the two time periods. This constancy allows for the conclusion that:

$$\gamma_{t_0,t_1} = \frac{\frac{K_{t_1} r_{t_1}}{Z_{i,t_1} w_{i,t_1}}}{\frac{K_{t_0} r_{t_0}}{Z_{i,t_0} w_{i,t_0}}} \quad (3.11)$$

The γ metric is particularly powerful because it translates the abstract concept of stakeholder orientation into a quantitative measure based on observable data. If γ is greater than one, it indicates that, between t_0 and t_1 , the firm has shifted its focus more toward prioritizing the interests of shareholders. On the other hand, if γ is less than one, it suggests that the firm has increased its emphasis on protecting the interests of its stakeholders. By leveraging this metric, the model enables a rigorous analysis of how firms distribute value among stakeholders, capturing the trade-offs they make in response to changing economic, social,

or institutional conditions. This theoretical framework provides insights into corporate behavior and lays the groundwork for exploring how external factors, such as regulatory environments or cultural norms, influence these dynamics.

Within this context, the γ can be applied to empirically compare how corporate orientations in the U.S. and Germany have evolved over recent years. Specifically, this approach allows us to analyze whether the U.S., historically known for its shareholder-oriented corporate model (Jackson, 2010), has shifted toward a greater emphasis on stakeholders and whether Germany, traditionally more stakeholder-focused (Hall & Soskice, 2001), has experienced a similar convergence. By employing regression analysis, this framework provides a quantitative assessment of these trends. It enables the exploration of the impact of contemporary dynamics, such as the growing emphasis on ESG practices and the disruptions caused by the COVID-19 pandemic. These insights are crucial for addressing the *Research Questions* posed, as the regression model facilitates an in-depth understanding of how external factors influence the balance between shareholder and stakeholder interests.

The regression model is specified as follows:

$$\gamma_{j,t}^i = \beta_0 + \beta_1 ESG_{j,t-1} + \beta_2 ESG_{t-1} * COVID_t + \beta_3 TOAS_{j,t} + \beta_4 SOLVRATIO_{j,t} + \beta_5 ROA_{j,t} + \beta_6 SALESGROWTH_{j,t} + \beta_7 TREND_t + \beta_8 COVID_t + \varepsilon_{j,t} \quad (3.12)$$

In this model, $\gamma_{j,t}^i$ represents the degree of stakeholder orientation for firm j and stakeholder i at time t , as measured by the γ metric. γ_1 evaluates the relationship between profit and loss after tax (net income or profit for the period) and costs of employees, capturing the trade-off between returns to shareholders and labor compensation. γ_2 compares interest paid to the cost of employees, indicating the firm's emphasis on financial creditors relative to its workforce. The remaining metrics are based on the distribution of total value added, defined as the sum of profit for the period, depreciation and amortization, taxes, interest paid, and costs of employees. Within this framework, γ_3 captures the variation of cash flow to equity (profit and loss after tax + taxes + depreciation and amortization) to total value added, reflecting the share of value retained within the firm or allocated to shareholders. γ_4 , γ_5 , and γ_6 measure, respectively, the proportions of interest paid, costs of employees and taxes in relation to total value added, thus capturing the evolution in the relative weight given to creditors, employees, and the state in the firm's internal distribution of economic value.

The explanatory variables include $ESG_{j,t-1}$, which captures the ESG score of firm j lagged by one period to mitigate endogeneity issues. As mentioned before, Matos (2020) and Pedersen et al. (2021) suggest that higher ESG performance is associated with greater stakeholder orientation. This is consistent with the view that ESG can align stakeholder engagement with financial goals (Eccles et al., 2014), especially when integrated strategically (Ioannou & Serafeim, 2019). The term $COVID_t$ is a dummy variable that equals 1 for the years 2020 and 2021, capturing the effects of the pandemic. Its interaction with $ESG_{j,t-1}$ measures whether the relationship between ESG practices and stakeholder orientation changes under pandemic conditions, in line with evidence from Albuquerque et al. (2020) and Mahmud et al. (2021).

$TOAS_{j,t}$ is the logarithm of total assets, serving as a proxy for firm size. Larger firms often experience greater public scrutiny and institutional pressure, which may incentivize more stakeholder-oriented practices (Freeman et al., 2018; Ioannou & Serafeim, 2019). $SOLVRATIO_{j,t}$ measures leverage as the ratio of shareholder funds to total assets, and $ROA_{j,t}$ represents operational performance, following a performance-based logic consistent with prior studies (Hillman and Keim, 2001; Surroca et al., 2010). More profitable firms may have greater capacity to balance returns across multiple stakeholders. The growth rate of sales is captured by $SALESGROWTH_{j,t}$.

Finally, $TREND_t$ is a time trend that captures structural evolutions in corporate governance. This includes regulatory shifts (UK Companies Act 2006), discursive changes (Business Roundtable, 2019), and broader institutional convergence between governance models (Goergen et al., 2008; Shin et al., 2022).

Thus, through the implementation of this methodological framework, it becomes possible to rigorously assess which factors influence corporate orientation, whether U.S. and Germany are converging in their corporate orientations, while simultaneously exploring the role of emerging trends such as ESG and pandemic-driven challenges in shaping these dynamics.

4. Results

4.1. Descriptive Statistics

This section aims to provide an initial characterization of the sample by comparing the companies from the U.S. and Germany across the main variables analyzed in this study. Also, by evaluating how the γ metrics, which capture intertemporal changes in the allocation of value among primary stakeholders, have evolved within and between countries, this descriptive analysis addresses the first component of *Research Question 1*, specifically how firms in the U.S. and Germany have shifted in their orientation toward shareholders and stakeholders. While the average of γ metrics offers a direct and intuitive measure of change during the period under analysis, they do not reveal how these patterns evolved year by year, whether developments occurred gradually, abruptly, or fluctuated throughout the period. Therefore, the TREND variable incorporated in the next chapter will complement this analysis through panel data regressions, allowing us to assess whether these changes follow consistent temporal patterns after controlling for firm-level characteristics.

This chapter aims to provide a clearer understanding of how the main financial characteristics and value distribution dynamics of firms differ between the two groups, offering initial insights into cross-country differences in corporate behavior and stakeholder orientation. The mean, standard deviation, minimum, and maximum were calculated by country for each variable.

The dependent variables (γ_1 to γ_6), which are constructed as ratios of firm-level financial components, were winsorized at the 5th and 95th percentiles to reduce the impact of outliers and extreme values that could distort the econometric analysis.

To formally assess whether the differences observed are statistically significant, independent two-sample t-tests assuming equal variances were conducted for each variable. This procedure verifies whether the mean differences between U.S. and German companies are statistically significant.

The results of the descriptive statistics and the t-tests are summarized in *Table 1*.

Table 1: Descriptive Statistics

Variables	Obs.	Average (Germany)	Average (USA)	Diff (Germany – USA)	St. Dev. (Germany)	St. Dev. (USA)	t-stat
γ_1	1304	0.9998	1.027	-0.0272	1.003	0.974	-0.488
γ_2	1304	1.042	1.068	-0.026	0.376	0.377	-1.214
γ_3	1304	0.989	0.987	0.02	0.9696	0.976	0.201
γ_4	1304	1.053	1.090	-0.037	0.469	0.506	-1.351
γ_5	1304	1.008	1.023	-0.015	0.211	0.322	-0.932
γ_6	1300	0.906	0.668	0.238	1.085	1.497	3.060 ***
ESG Score	1414	68.519	62.265	6.254	17.596	16.475	6.695 ***
TOAS	1467	16.287	16.500	-0.214	1.642	1.215	-2.847 ***
SOLVRATIO	1467	0.415	0.383	0.033	0.168	0.235	2.863 ***
ROA	1467	0.109	0.153	-0.044	0.067	0.094	-9.598 ***
SALESGROWTH	1304	-0.034	-0.057	0.022	0.356	0.312	1.191

Note: The null hypothesis of the statistical tests is that the German firms' mean is equal to that of the U.S. firms. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Regarding the dependent variables (γ metrics), the results reveal stability in most dimensions, with only one statistically significant divergence across countries. Firstly, γ_1 , which captures the evolution in the ratio between net income and employee costs, points to a stable pattern across both countries. In the U.S., the average value is 1.027, indicating a modest increase in the relative weight of net profits compared to labor costs, suggesting a slight reinforcement of shareholder orientation. In Germany, the mean value is 0.9998, signaling a steady balance in the value distribution between profits and employee costs. Although the U.S. result suggests a mild shift in favor of shareholders, the difference between the two countries is not statistically significant ($p > 0.1$), reinforcing the interpretation that both countries maintained broadly stable patterns in this dimension.

The γ_2 and γ_4 metrics assess the evolution of value allocated to creditors, capturing changes in the ratio of interest paid to cost of employees and to total value added, respectively. In the U.S., both indicators suggest a modest reinforcement of creditors. The average value of γ_2 is

1.068, while γ_4 has an average of 1.090, indicating that interest payments have grown slightly faster than labor costs and value creation. In Germany, the corresponding values are marginally lower, 1.042 for γ_2 and 1.053 for γ_4 , pointing to a similar, though slightly more contained, trend. However, the differences between the two countries are not statistically significant ($p > 0.1$), suggesting that, despite these nuances, firms in both institutional environments have followed broadly parallel trajectories in the compensation of creditors.

The γ_3 metric evaluates the evolution of cash flow to equity relative to total value added, reflecting how the share of value distributed to shareholders has evolved. In both countries, the average is slightly below 1, with values of 0.987 in the U.S. and 0.989 in Germany, indicating a marginal decrease in the proportion of value allocated to shareholders during the period under analysis. This subtle contraction may reflect a greater retention of value within the firm or a relative reinforcement of other stakeholders, without suggesting a significant shift in orientation. The values are nearly identical, and the difference between countries is not statistically significant ($p > 0.1$). This confirms that the trajectory of value allocation to shareholders has remained largely aligned across the two governance models.

The γ_5 metric measures the evolution in the proportion of value added allocated to employees, offering insight into whether firms have reinforced or reduced the relative share attributed to labor. The average value is 1.023 in the U.S. and 1.008 in Germany, indicating a slight upward adjustment in both cases. This suggests a marginal reinforcement of employee compensation as a share of created value, consistent with broader discussions around labor inclusion, social responsibility and stronger stakeholder relationships (Hillman & Keim, 2001; Freeman et al., 2018; Kaptein, 2025). However, the difference between the two countries is not statistically significant ($p > 0.1$), and the coefficients are relatively small, implying that firms in both governance systems have followed similar trajectories in maintaining or modestly increasing the role of employees in value distribution.

Most notably, the results of the γ_6 metric, which evaluates the evolution in the proportion of value added allocated to taxes, thus reflecting changes in the fiscal contribution of firms, reveal a more pronounced decline in the U.S., where the average stands at 0.668, compared to 0.906 in Germany. This difference is statistically significant ($p < 0.01$), indicating that U.S. firms have substantially reduced the share of value added allocated to taxes between 2015 and 2023, while German firms have adopted a more moderate adjustment. Although the

economic interpretation of this divergence may depend on institutional and policy factors, such as fiscal enforcement or incentives, the result underscores a notable asymmetry in how firms across governance models have evolved in their interaction with the state as a stakeholder.

As previously mentioned, it is important to reinforce that the γ metrics reflect average changes over time and do not capture the specific trajectory of those changes across individual years. Therefore, the interpretation of these results should be understood as indicative of overall patterns rather than continuous or linear trends. As such, the average values of these indicators provide a clear perspective of how value allocation to different stakeholders has shifted in both countries throughout the period under analysis.

In addition to the γ metrics, *Table 1* presents the descriptive statistics of the explanatory variables used in the regressions. The average ESG Score is higher in German firms (68.519 vs. 62.265 in the U.S.), and the difference is statistically significant ($p < 0.01$). This may reflect a corporate culture in Germany that is more sensitive to Environmental, Social, and Governance concerns, consistent with a more stakeholder-oriented logic (Hall & Soskice, 2001).

In terms of size, measured by the logarithm of total assets (TOAS), U.S. firms are slightly larger on average (16.500 vs. 16.287), with a statistically significant difference ($p < 0.01$). However, despite the statistical significance, the economic relevance of this difference appears modest, as the average firm size in both countries remains broadly comparable.

Regarding capital structure, German firms display greater solvency (0.415 vs. 0.383), with a statistically significant difference ($p < 0.01$), indicating lower leverage and a stronger reliance on equity financing. Conversely, U.S. firms report significantly higher levels of profitability (mean ROA of 0.153 in the U.S. vs. 0.109 in Germany; $p < 0.01$), which may reflect greater operational efficiency or stronger pressure to deliver financial results.

Finally, sales growth (SALESGROWTH) is negative in both countries, with mean values of -0.057 in the U.S. and -0.034 in Germany, and no statistically significant difference ($p > 0.1$), suggesting that the period under analysis was marked by a weak growth dynamic in both economic contexts.

In summary, the results presented in this chapter offer empirical insight into the internal evolution of value distribution practices across two contrasting governance systems. While

the U.S. is traditionally characterized as a shareholder-oriented model (Friedman, 1970; Jackson, 2010) and Germany as a stakeholder-centered framework rooted in codetermination and institutional coordination (Hall & Soskice, 2001; Aguilera & Jackson, 2003), the intertemporal dynamics captured by the γ metrics suggest a trajectory of relative stability within both institutional frameworks.

The absence of meaningful differences in γ_1 to γ_5 reinforces the notion that despite global pressures for convergence (Goergen et al., 2008; Lane, 2003), the underlying governance logics of both countries remain structurally consistent. U.S. firms exhibited a modest increase in profitability relative to employee costs and a slight reinforcement of creditor compensation, while German firms maintained a more balanced approach, in line with their institutional emphasis on stakeholder engagement and employment stability (Vitols, 2001; Jackson et al., 2004). However, none of these distinctions reached statistical significance, underscoring that the internal reconfiguration of value distribution has not fundamentally disrupted either model's equilibrium. The only statistically significant difference concerned the γ_6 metric, where U.S. firms exhibited a sharper reduction in the proportion of value allocated to taxes compared to their German counterparts. While this result may reflect jurisdictional differences in fiscal policy or regulatory enforcement, it also invites broader questions regarding the evolving role of the state as a corporate stakeholder.

This empirical stability provides a credible basis for the econometric analysis that follows, which will explore in greater depth the determinants of these patterns and their relationship to firm-specific characteristics.

4.2. Regression results

This section presents the results of the regressions estimated separately for U.S. and German companies, aiming to investigate how firm-specific characteristics influence the internal distribution of created value among shareholders, creditors, employees, and the state. In doing so, it addresses the second component of *Research Question 1*, by identifying the firm-level determinants that help explain variation in corporate orientation across companies and over time.

The regressions also enable us to explore *Research Question 2* by examining the impact of the COVID-19 pandemic on corporate orientation in the U.S. and Germany. A dummy variable

for 2020–2021 captures crisis-specific effects, allowing us to assess changes in value allocation across stakeholders. Separate estimations by country reveal how firms adjusted internally within each governance system during the pandemic.

Thus, following the methodological framework previously defined, firm fixed effects regressions were conducted for each of the six dependent variables (γ_1 to γ_6), using robust standard errors to account for potential heteroskedasticity and improve inference accuracy. This approach controls for time-invariant firm-specific characteristics and strengthens the validity of the estimated relationships.

As previously described, the explanatory variables included in the regressions are profitability (ROA), capital structure (SOLVRATIO), firm size (TOAS), sales growth (SALESGROWTH), ESG performance (ESG_lag), a time trend variable (TREND), and a dummy for the COVID-19 period, along with the interaction between ESG performance and the pandemic. This framework allows assessing the role of firm fundamentals and the impact of external shocks such as the COVID-19 crisis on corporate orientation.

The results are presented in *Tables 2* and *3*.

Table 2: Regression Results for U.S. companies

USA	γ_1	γ_2	γ_3	γ_4	γ_5	γ_6
ESG_lag	0.008 (1.22)	-0.0001 (-0.07)	-0.0003 (-0.37)	-0.004 (-1.21)	-0.004** (-2.63)	-0.002 (-0.27)
ESG_COVID	-0.0009 (-0.23)	0.0004 (0.22)	0.001 (1.25)	-0.0009 (-0.41)	-0.001 (-1.10)	-0.008 (-0.98)
TOAS	-0.027 (-0.25)	-0.0011 (-0.02)	-0.031 (-0.97)	0.074 (0.88)	0.049 (1.03)	0.126 (0.66)
SOLVRATIO	1.160*** (2.86)	-0.372** (-2.59)	0.191* (1.89)	-0.371 (-1.47)	0.027 (0.17)	-0.213 (-0.34)
ROA	1.181* (1.81)	0.258 (0.84)	0.329*** (2.81)	-0.368 (-0.91)	-0.598** (-2.64)	1.394 (1.54)
SALESGROWTH	-0.235** (-2.00)	-0.223*** (-5.20)	-0.062** (-2.18)	-0.399*** (-3.70)	-0.233*** (-3.33)	0.169 (0.92)
TREND	-0.011 (-0.59)	-0.006 (-0.79)	-0.002 (-0.59)	0.001 (0.14)	0.012* (1.69)	0.015 (0.53)
COVID	0.025 (0.09)	-0.040 (-0.30)	-0.069 (-1.01)	0.0607 (0.39)	0.117 (1.27)	0.564 (1.01)
R-squared	0.0244	0.0472	0.0401	0.0794	0.0764	0.0076

Note: Robustness t-statistics in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 3: Regression Results for German companies

GERMANY	γ_1	γ_2	γ_3	γ_4	γ_5	γ_6
ESG_lag	0.003 (0.51)	0.003* (1.95)	0.0008 (0.64)	0.005* (1.72)	0.0013 (0.82)	-0.014* (-1.81)
ESG_COVID	0.005 (0.79)	0.003* (1.73)	-0.00098 (-1.00)	0.004* (1.68)	0.00008 (0.10)	-0.006 (-0.98)
TOAS	0.690** (2.40)	0.195*** (2.75)	0.097 (1.18)	0.103 (0.73)	-0.056 (-0.64)	-0.179 (-0.54)
SOLVRATIO	2.044* (1.88)	-0.157 (-0.54)	0.542*** (3.32)	-0.256 (-0.41)	-0.168 (-0.50)	0.275 (0.35)
ROA	4.427** (2.03)	0.288 (0.33)	1.382*** (4.02)	-1.088 (-1.2)	-1.669*** (-5.87)	5.648*** (3.43)
SALESGROWTH	0.009 (0.03)	-0.180*** (-4.04)	0.026 (0.47)	-0.265*** (-3.34)	-0.115** (-2.19)	-0.026 (-0.14)
TREND	0.041 (1.08)	0.031*** (3.04)	0.0007 (0.10)	0.020 (1.41)	-0.004 (-0.49)	0.028 (0.74)
COVID	-0.284 (-0.66)	-0.332** (-2.44)	0.057 (0.78)	-0.357** (-2.14)	0.031 (0.54)	0.489 (1.16)
R-squared	0.0734	0.0623	0.1189	0.1417	0.1660	0.0576

Note: Robustness t-statistics in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

As observed in *Table 2*, the regression results for U.S. firms reflect a corporate governance model shaped predominantly by financial performance and growth dynamics. Among the explanatory variables, sales growth emerges as the most consistently significant factor, revealing how expansion strategies influence internal value allocation across multiple stakeholder groups. Profitability (ROA) and solvency (SOLVRATIO) also exert a key influence, reinforcing the value distribution in favor of shareholders while reducing the relative weight of employees and creditors.

Firstly, the variable SALESGROWTH emerges as one of the most consistently significant determinants across the models, with negative and statistically significant coefficients in γ_1 to γ_5 . In γ_1 (-0.235 ; $t = -2.00$), higher sales growth is associated with a lower increase in net income relative to labor costs, suggesting that growing firms tend to preserve or reinforce the relative position of employees relative to shareholders in value distribution, potentially due to rising employment costs, hiring, or workforce investment during expansion. In contrast, γ_5 (-0.233 ; $t = -3.33$) shows that labor absorbs a decreasing share of total value added, which may reflect productivity gains, wage discipline, or that other components of value-added grow more rapidly than labor costs. These two effects are not contradictory but

complementary, as workers gain ground relative to shareholders while simultaneously losing relative weight in the broader value allocation. The significant effect in γ_2 (-0.223 ; $t = -5.20$) and γ_4 (-0.399 ; $t = -3.70$) indicate a decline in the relative share of value directed to interest payments, implying a reduction in the proportional weight of creditors, potentially due to lower reliance on debt or dilution of financial costs within a growing value base. The effect in γ_3 (-0.062 ; $t = -2.18$) suggests that firms experiencing sales expansion retain proportionally less value as cash flow to equity, consistent with internal capital reinvestment over shareholder distributions. Only in γ_6 (0.169 ; $t = 0.92$) the effect is non-significant, indicating that fiscal contributions are not systematically shaped by sales dynamics.

The variable ROA, reflecting operational profitability, strongly influences value distribution dynamics across several γ metrics. In γ_1 , the positive marginally significant coefficient (1.181 ; $t = 1.81$), reveals that more profitable firms exhibit a higher increase in net income relative to labor costs, reinforcing a distribution logic in which shareholders capture a growing share of value compared to employees. This trend is reinforced in γ_3 (0.329 ; $t = 2.81$), where profitability is positively and significantly associated with cash flow to equity, highlighting that firms with higher returns tend to retain or distribute more value to shareholders. γ_5 (-0.598 ; $t = -2.64$) indicates that greater profitability corresponds to a declining share of value allocated to employees, suggesting a redistribution that reduces labor's share as firms become more financially efficient. The coefficients in γ_2 and γ_4 are not significant, indicating limited influence on interest expenditures. Overall, the evidence underscores the central role of profitability in reinforcing shareholder primacy, often at the expense of employee's weight in value creation.

SOLVRATIO, which reflects the firm's solvency and capital structure strength, exhibits statistically significant effects in three of the six γ metrics, reinforcing its relevance in shaping value distribution. In γ_1 (1.160 ; $t = 2.86$), firms with higher solvency ratios show a greater increase in net income relative to labor costs, indicating that better-capitalized firms tend to reinforce shareholder value compared to employee-related expenditures. A similar effect is observed in γ_3 (0.191 ; $t = 1.89$), where the positive and marginally significant coefficient reveals that higher solvency is associated with increased cash flow to equity, suggesting that strong equity positions support value retention or distribution to shareholders. In contrast, γ_2 (-0.372 ; $t = -2.59$) reveals that more solvent firms allocate proportionally less value to

interest payments, consistent with reduced reliance on debt financing. The effects in γ_4 , γ_5 , and γ_6 are not statistically significant. However, their direction is broadly aligned with a model in which financial strength limits creditor exposure without translating into greater redistribution to labor or the state. Thus, solvency appears to amplify shareholder orientation while diminishing the role of creditors in the value equation.

Regarding ESG variables, the results suggest very limited influence. The lagged ESG score is statistically significant only in γ_5 (-0.004 ; $t = -2.63$), indicating that firms with stronger ESG performance allocate less value added to employees. While unexpected, this result may reflect ESG strategies focused more on efficiency and external perception than on actual redistribution toward employees, aligning with critiques from Alves (2023) and Gillan et al. (2021), who argue that ESG initiatives often lack substantive impact on stakeholder outcomes and serve more as symbolic commitments. It is also aligned with the framework of Matten and Moon (2008), who describe Corporate Social Responsibility in the U.S. as explicit, meaning that firms voluntarily engage in these practices driven by market pressures and strategic positioning, rather than by embedded institutional obligations. Within this model, ESG adoption is often shaped by external visibility instead of internal transformation, which may explain the absence of positive effects on value allocations directed toward the workforce. In the remaining γ metrics, ESG_lag is consistently insignificant, with coefficients close to zero and low t-statistics. The ESG_COVID interaction term, which tests whether ESG-oriented firms behaved differently during the pandemic years, exhibits no statistically significant effects across any of the six metrics. These weak and inconsistent effects suggest that ESG orientation had no substantial influence on value distribution during the pandemic. Overall, the results demonstrate that ESG in the U.S. context has a mostly symbolic role, with small real influence on how value is distributed among stakeholders. However, a more detailed analysis of ESG performance and its relationship with corporate orientation is presented in the next section, where quartile-based tests and additional robustness checks delve deeper into the link between ESG performance and corporate orientation, addressing *Research Question 3*.

COVID isolates the pandemic years of 2020 and 2021 but does not exhibit statistically significant effects in any of the γ metrics. The coefficients remain small, and the associated t-statistics are low across all models, suggesting that the pandemic did not produce any robust or systematic shift in how U.S. firms allocated value among stakeholders. However, since γ_3 ,

γ_5 and γ_6 display the largest coefficients in absolute terms, they warrant closer attention. In γ_3 (-0.069 ; $t = -1.01$), the negative coefficient indicates that firms retained a smaller share of value as cash flow to equity, consistent with precautionary behavior or a temporary reduction in shareholder distributions in response to heightened uncertainty. Conversely, γ_5 (0.117 ; $t = 1.27$) suggests a modest increase in the proportion of value directed to employees, possibly reflecting greater social pressure or the need to support labor during the crisis. Similarly, γ_6 (0.564 ; $t = 1.01$) points to a potential increase in the fiscal contribution of firms, possibly driven by tax policy adjustments or temporary government measures during the pandemic. Nevertheless, without statistical significance, these effects should be interpreted with caution. This adjustment, although minor and temporary, may reflect a tactical response by firms to short-term pressures and heightened social expectations during the crisis, without implying a substantial shift in the underlying logic of U.S. corporate governance.

The TREND variable is defined as a linear time index that increases by one unit per year (starting at 0 in 2015), and it captures systematic changes in the internal distribution of value over time, holding other explanatory variables constant. Positive and statistically significant coefficients on TREND indicate a growing relative weight of the corresponding stakeholder group in the value allocation process, while negative coefficients suggest a declining share. While the analysis in the previous chapter was based on descriptive averages of each γ to identify broad shifts in stakeholder orientation between the beginning and the end of the period, TREND complements it by testing whether the observed dynamics are consistent with an underlying structural trend that persists after accounting for firm-level characteristics.

The results show no evidence of statistically significant temporal effects in γ_1 , γ_2 , γ_3 , γ_4 or γ_6 , reinforcing the pattern of stability identified earlier. Conversely, γ_5 (0.012 ; $t = 1.69$) reveals a marginally significant effect, suggesting a gradual increase in the share of value directed to employees. This aligns with the upward adjustment observed in γ_5 in the descriptive analysis and may reflect a slow institutional or societal rebalancing toward broader stakeholder inclusion, potentially driven by evolving expectations around labor fairness and responsibility (Hillman & Keim, 2001). It is worth noting that, although the average value of γ_6 in the U.S. sample pointed to a significant decline in tax-related value allocation, the positive coefficient on TREND suggests a potential inflection in recent years. This apparent divergence reflects the distinct nature of both metrics, as the average captures cumulative change. In contrast, TREND isolates the direction of change over time after controlling for firm-level effects.

Nonetheless, given the weak or absent trends in most metrics, the findings corroborate the relative stability in the U.S. governance model throughout the period, with only tentative indications of adjustment in how value is shared.

So, the results for U.S. firms reveal a corporate governance structure driven primarily by growth dynamics, profitability, and capital structure. Sales growth emerges as the most influential variable, consistently shaping internal value distribution across stakeholder groups. Profitability and solvency further reinforce a distribution logic that favors shareholders, often to the detriment of employees and creditors. While there are marginal signs of increased value directed to workers over time, and some isolated pandemic-related adjustments, these changes are modest and do not indicate a structural shift. ESG performance shows a limited tangible impact on value allocation. Thus, the evidence suggests that U.S. companies remain anchored in a shareholder primacy model, where other stakeholders hold a secondary position in the distribution of created value.

Regarding the German sample (*Table 3*), the variable ROA, which reflects operational profitability, strongly and consistently influences value distribution among German firms. In γ_3 (1.382; $t = 4.02$), ROA is positively and significantly associated with cash flow to equity, indicating that more profitable companies tend to retain or distribute a larger share of value to shareholders. A similar effect is observed in γ_1 (4.427; $t = 2.03$), where profitability is linked to a higher increase in net income relative to labor costs, suggesting that shareholder returns have expanded more rapidly than labor compensation. The effect is also pronounced in γ_6 (5.648; $t = 3.43$), showing that more profitable firms also contribute more to taxes, which may reflect the direct relationship between corporate profitability and fiscal obligations within the German regulatory framework. In contrast, γ_5 (-1.669; $t = -5.87$) shows a significant decline in the share of value allocated to employees as profitability increases, suggesting that gains from efficiency are not proportionally shared with labor. The coefficients in γ_2 and γ_4 are not statistically significant. Thus, the results highlight that even in a stakeholder-oriented model (Jackson et al., 2004), profitability reinforces shareholder and state claims, while potentially reducing employee's relative position.

SALESGROWTH also emerges as a significant determinant of value distribution in German firms, with negative and statistically significant effects in γ_2 , γ_4 , and γ_5 . In γ_2 (-0.180; $t = -4.04$), higher sales growth is associated with a relative decline in interest payments compared

to labor costs, suggesting that expanding firms tend to rely less on debt or that financial costs become diluted in a growing cost structure. Similarly, γ_4 (-0.265 ; $t = -3.34$) indicates that creditors receive a smaller share of total value added as firms grow, reinforcing the idea of greater reliance on internal financing or simply that value creation expands more rapidly than financial costs. In γ_5 (-0.115 ; $t = -2.19$), the share of value allocated to employees decreases, possibly reflecting productivity gains or that total value added grows faster than labor costs in expanding firms. The effects in γ_1 , γ_3 , and γ_6 are not statistically significant. Thus, the results point to a governance dynamic where growth is pursued with financial discipline and efficiency, reducing the proportional claims of creditors and employees. This outcome appears to be driven not by cost suppression, but by a more accelerated expansion in value creation. While the direction of effects mirrors what was observed in the U.S., the magnitude is more contained, consistent with the German model's emphasis on coordinated financing and stable employment (Vitols, 2001).

The variables `ESG_lag` and `ESG_COVID` exhibit marginal and inconsistent associations with value distribution among German firms. `ESG_lag` is marginally significant in γ_2 (0.003 ; $t = 1.95$), γ_4 (0.005 ; $t = 1.72$), and γ_6 (-0.014 ; $t = -1.81$), suggesting that stronger ESG performance may be associated with a slightly higher relative allocation to creditors and a lower share of value distributed to the state. `ESG_COVID` shows marginal significance in γ_2 (0.003 ; $t = 1.73$) and γ_4 (0.004 ; $t = 1.68$), indicating that during the pandemic, firms with higher ESG profiles may have marginally increased the value directed to creditors, both relative to labor costs and total value added. However, the effects are weak and not consistently observed across stakeholder groups, offering little evidence of a systematic ESG-driven redistribution pattern. This may reflect the implicit CSR logic described by Matten and Moon (2008), whereby stakeholder considerations are already embedded in the institutional framework, particularly in Germany, leading to reduced variation in ESG-related behavior across firms. These findings suggest that ESG orientation plays a modest role in shaping internal value allocation in this context, however, as previously noted, ESG-related concerns will be examined in greater detail in the following section.

Regarding `TOAS`, which captures firm size through the logarithm of total assets, it shows positive and statistically significant effects in γ_1 (0.690 ; $t = 2.40$) and γ_2 (0.195 ; $t = 2.75$). These results suggest that larger firms generate higher net income relative to labor costs and allocate a greater share of value to interest payments relative to employees. Instead of

signaling a penalization of employees, these patterns appear to reflect efficiency gains and capital structures shaped by long-term relationships with financial institutions (Aguilera & Jackson, 2003). Notably, TOAS has no significant effect in γ_5 , indicating that firm size does not systematically affect the share of value added allocated to employees. Compared to the U.S., where TOAS had no significant effect, the German results highlight a more visible role of firm size in shaping value distribution. This may reflect the institutional embeddedness of large firms in coordinated economies like Germany, where size is tied to structured stakeholder relations and long-term planning (Hall & Soskice, 2001; Vitols, 2001).

The TREND variable is statistically significant only in γ_2 (0.031; $t = 3.04$), indicating a gradual increase in the share of value allocated to interest payments relative to labor costs. This aligns with the descriptive statistics chapter, where the average γ_2 in German firms is above one, suggesting that creditor compensation have increased relative to labor costs over the period. These results may reflect a slight reinforcement of creditor compensation over time, possibly linked to evolving financing strategies or macroeconomic conditions. This pattern is also consistent with the institutional features of the German governance model, where long-term relationships with stakeholders, such as banks, play a central role in financing and monitoring firms, reinforcing a structure oriented toward stability and sustained corporate growth (Aguilera & Jackson, 2003). However, all the other coefficients are statistically insignificant, suggesting that the overall pattern of value distribution has remained stable throughout the period, in line with the dynamics identified in the previous section. These results reinforce that German firms operate within a structurally embedded system, remaining centered on the stakeholder-oriented governance model (Jackson et al., 2004).

In relation to COVID, the variable shows limited but statistically significant effects on value distribution among German firms. The coefficients in γ_2 (-0.332 ; $t = -2.44$) and γ_4 (-0.357 ; $t = -2.14$) are negative and significant at the 5% level, indicating that during the pandemic, the share of value allocated to creditors decreased both in relation to labor costs and total value added. This suggests that firms may have prioritized labor protection or liquidity preservation over servicing financial obligations. These findings are consistent with the literature on German corporate governance, which emphasizes employment stability and stakeholder protection during economic downturns (Vitols, 2001; Jackson et al., 2004). The coefficients in γ_1 , γ_3 , γ_5 , and γ_6 are all insignificant, suggesting that the pandemic did not meaningfully alter the relative distribution of value to shareholders, employees, or the state.

Thus, the evidence indicates that while the pandemic had some impact on creditor-related flows, it did not trigger a broad reconfiguration of value allocation in the German corporate governance model.

SOLVRATIO shows statistically significant effects in γ_1 (2.044; $t = 1.88$) and γ_3 (0.542; $t = 3.32$). The highly significant coefficient in γ_3 suggests that firms with more robust balance sheets are better positioned to retain or distribute greater cash flow to equity, reinforcing shareholder interests. In γ_1 , the effect is marginally significant, indicating that higher solvency may be associated with increased net income relative to labor costs. This could reflect operational stability and financial resilience, allowing firms to expand profitability without proportionally increasing labor expenditure.

Building on the preceding analysis, the regression results offer a comprehensive understanding of how internal value distribution is influenced by firm-level financial conditions and by external disruptions within two distinct corporate governance systems. Including the pandemic variable enriches the analysis by capturing how firms adjusted stakeholder allocations during a period of systemic stress, thereby complementing the assessment of structural determinants with a temporally shock and contributing directly to the examination of *Research Question 2*. Several key patterns emerge by linking these empirical findings with the theoretical and institutional frameworks discussed in the literature review.

In the U.S., the findings underscore a governance logic strongly anchored in financial performance, reflecting Friedman's (1970) principle of shareholder primacy and Fama's (1980) market-based alignment mechanisms. Variables such as ROA and SOLVRATIO consistently shape value distribution, privileging shareholders. This pattern aligns with empirical studies by Graham et al. (2005), who showed how U.S. managers prioritize short-term financial metrics, often at the cost of long-term stakeholder investments. Sales growth reveals how expansion strategies can reshape internal value allocation, often reinforcing capital accumulation while preserving labor dynamics, without substantially altering the shareholder-oriented structure. While there are slight upward trends in the shares allocated to employees over time, these changes are statistically weak and do not indicate a meaningful shift from the traditional shareholder-centric model.

Thus, these findings allow us to address the first *Research Question* in the context of the U.S. This shows that firm-level financial fundamentals continue to shape corporate orientation in

a way that prioritizes shareholder value. ESG performance, despite its prominence in corporate discourse, exhibits minimal tangible impact on value distribution, consistent with the critiques by Alves (2023) and Gillan et al. (2021), who argue that ESG often serves symbolic instead of transformative purposes.

In Germany, the regression results reveal a governance model that, while institutionally anchored in stakeholder coordination (Hall & Soskice, 2001; Jackson et al., 2004), responds meaningfully to firm-level financial dynamics. Profitability (ROA) has a strong and consistent impact on value distribution, increasing the share allocated to shareholders and taxes, while reducing the relative position of labor. Solvency also influences outcomes, reinforcing shareholder claims in financially stronger firms. Sales growth leads to lower relative allocations to creditors and employees, suggesting that expansion is pursued with a focus on internal financing and efficiency. These results suggest that German firms do not follow a rigid stakeholder model in which all companies would allocate value similarly regardless of their financial condition. Instead, value allocation appears responsive to internal performance dynamics, indicating that stakeholder governance in Germany is not static but adaptive, with room for discretion and adjustment within a coordinated institutional framework.

Therefore, in the context of the first *Research Question*, the German case shows that even within a stakeholder-oriented framework, the internal distribution of value remains closely linked to firm-specific financial conditions, revealing a model that accommodates performance-driven adjustments within institutional boundaries. Furthermore, the relatively limited role of ESG variables supports the view of implicit CSR in Germany (Matten & Moon, 2008), where social responsibilities are structurally internalized, resulting in less variation across firms and weak statistical signals.

Additionally, the evidence from both countries indicates that the COVID-19 pandemic did not produce a structural reconfiguration in corporate orientation but led to context-specific and temporary adjustments aligned with each governance model. In the U.S. none of the coefficients associated with the COVID variable reach statistical significance across the γ metrics, indicating the absence of any robust or systematic shift in value allocation during the pandemic. Nonetheless, the comparatively higher magnitude of the coefficients in γ_3 , γ_5 and γ_6 suggests that some firms may have temporarily redirected value away from shareholders toward the state and employees in response to heightened social pressures. However, given the lack of statistical significance, these patterns should be interpreted with

caution and do not constitute evidence of a structural change in the prevailing logic of shareholder primacy (Friedman, 1970; Jackson, 2010). Conversely, the German results reveal a statistically significant reduction in the share of value allocated to creditors, indicating a deliberate reinforcement of stakeholder protection, particularly regarding employees, which reflects a core principle of the German coordinated market economy (Hall & Soskice, 2001; Vitols, 2001). Therefore, the findings show that while the pandemic influenced internal value allocation, it acted more as a stress test than a transformative event, exposing the adaptive responses of firms without fundamentally altering the underlying governance structures.

4.3. ESG Performance and Value Distribution

This section examines whether companies with different levels of ESG performance exhibit distinct patterns in the value distribution among corporate stakeholders, which allows us to address *Research Question 3* regarding the association between ESG and value allocation. While the regression models presented in the previous section offered preliminary insights into the role of ESG, considering both ESG scores and the interaction with the pandemic period, the effects observed were generally weak. They did not indicate a clear association with value distribution. To deepen this analysis and assess whether ESG is associated with tangible differences in how firms allocate value, this chapter conducts a complementary, non-parametric examination based on ESG quartiles.

To explore this relationship, the sample was divided into quartiles based on firms' ESG scores, separately for the U.S. and Germany. Specifically, the top quartile (Q4), representing companies with the highest ESG scores, was compared to the bottom quartile (Q1), representing companies with the lowest ESG scores.

For each country, descriptive statistics were computed for the six dependent variables (γ_1 to γ_6) across ESG quartiles, preliminary assessing how value is allocated across stakeholder groups according to ESG performance.

To formally test whether these differences are statistically significant, two-sample t-tests assuming equal variances were performed, comparing the mean values of Q1 and Q4 for each dependent variable.

By analyzing firms with contrasting ESG profiles, this section seeks to understand whether stronger ESG performance is associated with a more stakeholder-oriented approach to value distribution or whether financial priorities remain predominant among firms with high ESG engagement.

The results are presented in *Tables 4* and *5*.

Table 4: Value Allocation Across ESG Quartiles – U.S. Companies

USA	Average (Q1)	Average (Q4)	Diff (Q1-Q4)	t-stat
γ_1	0.958	1.070	-0.112	-1.2119
γ_2	1.107	1.028	0.079	2.1620**
γ_3	0.983	1.002	-0.019	-1.1619
γ_4	1.156	1.008	0.148	3.0832***
γ_5	1.033	0.988	0.045	1.5035
γ_6	0.686	0.778	-0.092	-0.6455

Note: The null hypothesis of the statistical tests is that the difference in mean values between Q1 and Q4 is null. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 5: Value Allocation Across ESG Quartiles – German Companies

Germany	Average (Q1)	Average (Q4)	Diff (Q1-Q4)	t-stat
γ_1	1.129	0.922	0.207	1.5416
γ_2	1.033	1.052	-0.019	-0.3763
γ_3	1.019	0.989	0.030	1.0541
γ_4	1.041	1.073	-0.032	-0.5177
γ_5	0.990	1.015	-0.025	-0.9064
γ_6	0.964	0.825	0.139	0.9453

Note: The null hypothesis of the statistical tests is that the difference in mean values between Q1 and Q4 is null. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The analysis of the relationship between ESG performance and U.S. companies' orientation in the value distribution among stakeholders reveals theoretically relevant results (*Table 4*).

Starting with metric γ_1 , which captures the relative evolution of net income in comparison to labor costs, the results reveal no statistically significant differences between firms with low and high ESG performance. Companies in the top ESG quartile (Q4) report an average γ_1 of 1.070, compared to 0.958 among firms in the bottom quartile (Q1). Although this suggests a slightly stronger increase in net profits relative to employee costs in high-ESG firms, the difference is not statistically significant ($p > 0.1$). The absence of significance implies that ESG performance is not meaningfully associated with changes in how firms balance profitability and employee's compensation. This result reinforces previous regression findings, where ESG variables failed to significantly influence γ_1 , suggesting that shareholder returns relative to labor costs remain largely unaffected by ESG orientation.

Regarding the relationship between ESG performance and the value allocated to interest expenses, the results show a statistically significant difference between ESG profiles, as firms in the bottom ESG quartile (Q1) present an average γ_2 of 1.107, compared to 1.028 in the top quartile (Q4). This difference is significant at the 5% level ($p < 0.05$), indicating that firms with weaker ESG scores have experienced a more pronounced upward trend in the share of value directed to interest payments relative to employees over time.

This is consistent with the results of γ_4 , which also exhibit a statistically significant difference between ESG profiles, with firms in the bottom quartile reporting an average γ_4 of 1.156, compared to 1.008 in the top quartile. This difference is significant at the 1% level ($p < 0.01$), also indicating that low-ESG firms have experienced a more marked upward shift over time in the proportion of value allocated to creditors relative to total value created.

Notably, this dynamic aligns with prior research that links strong ESG performance to improved financial credibility and reduced borrowing costs. For instance, Alves and Meneses (2024) provide evidence that stronger ESG performance tends to face lower debt costs, particularly in market-based financial systems, such as U.S., highlighting ESG as a relevant factor in reducing perceived risk. Similarly, Ioannou and Serafeim (2019) highlight that strategic ESG adoption can enhance financial performance and resource allocation. In this light, the lower creditor-related outflows observed among high-ESG firms may reflect their enhanced financial reputation and access to cheaper financing, which reduces interest expenses without necessarily indicating lower debt levels.

Also, these results are consistent with the direction of the regression analysis for the variable *ESG_lag*, which also showed negative coefficients for creditor-related metrics. However, the effects were not statistically significant in that context. While the quartile analysis compares the extremes of ESG performance and highlights a visible difference in value allocated to creditors, the regression models control for firm-specific characteristics and time variation, which may explain the lack of significance. Nevertheless, the convergence of evidence across methods reinforces the relevance of ESG as a factor shaping financial flows within U.S. firms.

Regarding metric γ_3 , which captures the evolution of cash flow to equity relative to total value added, the results show that firms in the top ESG quartile (Q4) have a slightly higher average γ_3 of 1.002 compared to 0.983 in the bottom quartile (Q1). Despite this small difference, the result is not statistically significant ($p > 0.1$), indicating that ESG performance does not appear to influence the relative share of value allocated to shareholders meaningfully. This suggests that, in the U.S. context, high-ESG firms do not systematically reduce or increase cash flow to equity compared to their low-ESG counterparts. The absence of a clear pattern reinforces that ESG engagement among American firms may have limited impact on shareholder-related distributions, which remain broadly stable across different ESG profiles.

Regarding the proportion of total value added that is allocated to employees, the results indicate that firms in the bottom ESG quartile report a slightly higher average γ_5 of 1.033, compared to 0.988 in the top quartile. Although this suggests that low-ESG firms allocate a marginally greater share of value to employees, the difference is not statistically significant at 10% level. This weak evidence does not support the view that higher ESG performance is systematically associated with stronger labor outcomes regarding value distribution. The result is particularly relevant when considered alongside the regression analysis, where *ESG_lag* was significantly and negatively associated with γ_5 (coefficient = -0.004 ; $p < 0.05$), suggesting that high ESG scores may reflect efficiency, cost control or reputational goals instead of a tangible redistribution of value toward employees.

This reinforces critical perspectives in the literature suggesting that ESG performance does not always translate into concrete improvements for internal stakeholders. As Alves (2023) and Gillan et al. (2021) highlight, ESG initiatives often prioritize external visibility and risk mitigation over substantive redistribution. The negative association between ESG and the

share of value allocated to employees, observed in the regression and quartile analyses, may reflect strategies focused on operational efficiency or symbolic compliance rather than a genuine commitment to labor inclusion. This is also aligned with the notion of explicit CSR advanced by Matten and Moon (2008), who argue that, in liberal market economies such as the U.S., social responsibility tends to be externally communicated and voluntarily adopted as part of strategic positioning, instead of embedded within institutional obligations. While ESG encompasses broader Environmental and Governance dimensions, the absence of positive effects across employees' metrics suggests that, in the U.S. context, high ESG scores remain largely decoupled from internal value distribution practices.

Finally, metric γ_6 reflects the proportion of total value added allocated to taxation, capturing how firms contribute to the state as a stakeholder. The results show that firms in the top ESG quartile (Q4) report a slightly higher average γ_6 of 0.779 compared to 0.686 in the bottom quartile (Q1). Although this suggests that high-ESG firms have exhibited a more consistent upward trend in their relative fiscal contribution throughout the period under analysis, the difference is not statistically significant ($p > 0.1$). The lack of significance indicates that ESG performance does not have a clear or consistent relationship with firms' relative tax contributions. This result is consistent with the regression analysis, where the coefficient of ESG_lag on γ_6 was also not significant ($p > 0.1$), reinforcing the conclusion that ESG engagement among U.S. firms does not appear to translate into a meaningful reconfiguration of value allocation toward the state.

When assessing the German results (*Table 5*), a key pattern that immediately emerges is the absence of statistically significant differences across all six dependent variables. Unlike the U.S. results, where certain metrics revealed meaningful variation between firms with low and high ESG performance, the German data display a remarkable degree of uniformity. This lack of differentiation suggests that ESG scores do not meaningfully influence how German companies allocate value among stakeholders. Such homogeneity may reflect the institutional embeddedness of stakeholder responsibilities in the German model, where corporate behavior is to a lesser extent driven by voluntary ESG commitments and more by deeply ingrained legal, cultural, and governance norms. As Matten and Moon (2008) argued, corporate social responsibility in coordinated market economies like Germany tends to be implicit rather than explicit, embedded in collective institutions and regulatory structures. Consequently, ESG ratings may not serve as effective proxies for variation in stakeholder

orientation within the German context, limiting their explanatory power in value allocation patterns.

For instance, γ_1 shows a difference of 0.207 ($p > 0.1$), with low-ESG firms allocating a relatively higher share of value to shareholders compared to labor. However, this result is not statistically significant and aligns with the regression findings, where ESG_lag had no significant effect on γ_1 . The absence of significance here reinforces the interpretation that ESG scores are not meaningful determinants of relative value distribution between employees and profits in German companies.

Regarding the creditor-related metrics, γ_2 and γ_4 exhibit minimal differences between Q1 and Q4, both being slightly higher for high-ESG firms (1.052 vs. 1.033 for γ_2 , and 1.073 vs. 1.041 for γ_4). Although these differences are not statistically significant, they suggest a mild tendency for high-ESG German firms to allocate a marginally greater share of value to interest payments, both relative to labor and in terms of total value added. This pattern contrasts with the U.S. results, where allocations to interest decreased with higher ESG scores. These results are supported by the regression results, where ESG_lag showed weak positive associations with γ_2 (coefficient = 0.003; $p < 0.1$) and γ_4 (coefficient = 0.005; $p < 0.1$), suggesting that higher ESG scores are slightly associated with greater allocations to creditors. However, the limited magnitude and significance of these effects indicate that this tendency does not appear to result primarily from ESG performance. Instead, it may reflect broader institutional features of the German corporate governance model, where stable, long-term relationships with creditors, particularly banks, are structurally embedded in firms' financing practices and governance frameworks. As Aguilera and Jackson (2003) noted, these stakeholder relationships play a central role in firm oversight and decision-making, suggesting that the small ESG-related variation observed may mirror underlying institutional norms rather than a direct ESG effect.

The results for γ_3 and γ_5 , capturing shareholder and employee allocations relative to total value added, are inconclusive. Although γ_3 is slightly higher in low-ESG firms (1.019 vs. 0.989), and γ_5 is marginally higher in high-ESG firms (1.015 vs. 0.990), these differences are not significant. Thus, this pattern suggests that, within German firms, shareholder returns and employee compensation exhibit stability across ESG profiles. Regression estimates confirm the absence of significant ESG effects on γ_3 and γ_5 , reinforcing the narrative that

value distribution is not meaningfully shaped by ESG variation within the coordinated market economy of Germany

Lastly, γ_6 reveals no statistically significant difference between low and high-ESG firms (0.964 in Q1 vs. 0.825 in Q4; $p > 0.1$). This suggests that ESG performance does not meaningfully influence firms' fiscal contributions in the German context. While the regression analysis showed a weak negative association between ESG_lag and γ_6 (coefficient = -0.014 ; $p < 0.1$), the absence of significance in the quartile comparison reinforces the idea that ESG orientation does not translate into systematic variation in tax allocations. These findings are consistent with the pattern of institutional embeddedness in Germany, where tax obligations tend to reflect regulatory frameworks rather than voluntary ESG practices.

To sum up, the analysis of U.S. companies reveals a modest but theoretically meaningful relationship between ESG performance and the internal distribution of value. The most consistent result emerges in relation to interest allocations, where firms with higher ESG scores tend to direct a smaller share of value to interest payments, both relative to employees (γ_2) and in aggregate terms (γ_4). These statistically significant differences are consistent with prior literature suggesting that ESG performance is associated with improved financial credibility and reduced borrowing costs, particularly in market-based financial systems (Alves & Meneses, 2024; Ioannou & Serafeim, 2019). Conversely, the remaining metrics reveal no clear evidence that ESG-oriented firms allocate more value to employees, shareholders, or the state. Notably, the only statistically significant regression result was a negative association between ESG scores and employee-related allocations, reinforcing critical views from Alves (2023) and Gillan et al. (2021), who argue that ESG may often reflect symbolic adherence or efficiency goals instead of genuine redistributive action. This interpretation aligns with Matten and Moon's (2008) characterization of CSR in the U.S. as predominantly explicit, externally oriented, and strategically driven. While ESG appears to be associated with more moderate external financial expenditures, its influence on broader stakeholder outcomes within U.S. firms remains limited.

Within a different institutional context, the results for German firms reveal an evident degree of consistency across all stakeholder metrics. This divergence suggests that the role and impact of ESG differ markedly between governance systems, reinforcing the idea that institutional context shapes how sustainability commitments translate into corporate behavior. Within Germany's coordinated market economy, where stakeholder

responsibilities are structurally embedded and less dependent on voluntary ESG initiatives (Matten & Moon, 2008), the influence of ESG scores on internal value allocation appears notably weaker.

These findings reinforce that the implications of ESG performance are not uniform across institutional contexts. While ESG appears to correlate with marginal financial advantages in U.S. firms, particularly through a reduction in interest-related payments, its role in reshaping broader stakeholder allocations remains limited. The lack of significant variation across ESG quartiles in Germany suggests that sustainability practices are already embedded in governance structures, reducing the need for ESG as a differentiating mechanism. Instead of inaction, this stability reflects the structural integration of stakeholder responsibilities, highlighting how institutional frameworks condition the extent to which ESG performance translates into internal value reallocation.

4.4. Robustness Tests

To strengthen the credibility of the cross-country comparisons presented in *Chapter 4.1*, and to complement the analysis that allowed us to observe how the value allocated to different stakeholders evolved between 2015 and 2023 in both countries, this section introduces a robustness check using a Propensity Score Matching (PSM) approach. While the descriptive statistics provided valuable insights into the average intertemporal evolution of value allocation metrics (γ_1 to γ_6) across U.S. and German companies, they did not explicitly account for potential structural differences in firm characteristics between the two samples. In this context, complementing the analysis with a matching procedure allows us to verify whether the patterns observed remain consistent when comparing firms with similar profiles regarding size, profitability, solvency, and growth.

To mitigate this concern and assess whether the observed differences remain after accounting for key firm-level characteristics, we implement a matching procedure based on the methodology proposed by Rosenbaum and Rubin (1983). The treatment group is defined as the set of U.S. companies, while German firms serve as the control group. Using a logit model, we estimate the propensity score, which corresponds to the probability of being a U.S. firm, based on four structural covariates: Return on Assets (ROA), solvency ratio (SOLVRATIO), firm size (TOAS), and sales growth (SALESGROWTH). These variables

reflect the financial profile of each company and were selected for consistency with the baseline regressions developed in the methodology.

The logistic model used to estimate the propensity scores can be expressed as follows:

$$\text{logit}(P(USA_i = 1)) = \beta_0 + \beta_1 ROA_i + \beta_2 SOLVRATIO_i + \beta_3 TOAS_i + \beta_4 SALESGROWTH_i + \varepsilon_{j,t} \quad (4.1)$$

Where $P(USA_i = 1)$ represents the probability that firm i is classified as a U.S. company, given its return on assets, solvency ratio, size, and sales growth.

The logistic model yielded statistically significant results (LR $\chi^2 = 99.80, p < 0.01$), confirming that the selected covariates effectively differentiate firms from the two countries. After estimating the propensity scores, we confirmed that the distributions for U.S. and German firms present sufficient overlap to justify the implementation of the matching procedure, with predicted probabilities ranging from 0.07 to 0.99 for U.S. firms and from 0.16 to 0.85 for German firms. This ensures that structurally comparable firms exist across both samples.

Following this validation, we apply nearest-neighbor matching (one-to-one, without replacement) to pair each U.S. firm with a structurally comparable German firm. This approach ensures that any differences in the γ metrics observed between the two groups cannot be attributed to disparities in financial characteristics. Then, we estimate the Average Treatment Effect on the Treated (ATET) for each γ metric, which captures the average difference in stakeholder value allocation between U.S. and German firms, conditional on comparable structural profiles.

This robust test serves two purposes. First, it verifies whether the patterns previously identified regarding how firms in each country adjusted the value allocated to their stakeholders between 2015 and 2023 persist after controlling for firm heterogeneity. Second, it helps uncover latent differences that may have been concealed in the unadjusted group comparisons, such as the potential for firms from one governance model to have reallocated value toward certain stakeholders more aggressively than those from the other, once matched on fundamentals. The results of this analysis are presented in *Table 6*.

Table 6: Propensity Score Matching Results – Average Treatment Effect on The Treated (ATET)

PSM	γ_1	γ_2	γ_3	γ_4	γ_5	γ_6
ATET	-0.103 (-1.18)	-0.061 (-1.16)	-0.024 (-1.36)	-0.065 (-0.80)	0.044** (2.47)	-0.292*** (-2.67)
Obs.	1304	1304	1304	1304	1304	1300

Note: z-statistics in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The results obtained through the Propensity Score Matching analysis for γ_1 , γ_2 , γ_3 , and γ_4 reinforce the interpretation advanced in *Chapter 4.1*. Despite the structural differences between the two corporate governance models, the intertemporal evolution in value allocation to shareholders and creditors does not differ significantly between firms from each country. Once key financial characteristics are balanced, the observed differences in these γ metrics remain statistically insignificant, suggesting that within their respective institutional frameworks, companies in both samples maintained relatively stable patterns in adjusting the share of value directed to profits, interest payments, and shareholder returns. These results corroborate the descriptive statistics previously discussed, where no significant divergences were found in these metrics, and support the idea that the financial stakeholders of each system experienced stable trajectories in relative value allocation over the 2015–2023 period.

The γ_5 metric, which captures the evolution over time of the proportion of total value added allocated to employees, reveals a statistically significant difference between the matched groups. According to the PSM analysis, structurally comparable U.S. firms exhibited a significantly stronger increase in the relative share of value added allocated to employees over the 2015–2023 period compared to their German counterparts, with an estimated ATET of 0.044 ($p < 0.05$). This result gains particular relevance and consistency when considered alongside the findings from *Chapter 4.1*, where both countries displayed a modest upward trend in γ_5 (1.023 in the U.S. and 1.008 in Germany), but without a statistically significant divergence. The PSM analysis refines this initial observation by revealing that, when controlling for structural financial differences, the relative increase in the share of value directed to employees was significantly higher in the U.S. sample. This suggests that the average-based comparison may have masked meaningful underlying differences, which only become visible once firms are evaluated within a comparable financial context.

The absence of a significant effect for German firms may reflect that employee interests are already deeply embedded in the corporate governance framework through codetermination, collective bargaining, and other institutionalized mechanisms (Hall & Soskice, 2001; Vitols, 2001). Within this coordinated market economy, the role of employees as relevant stakeholders is structurally secured, leaving limited room for further visible reallocation in γ_5 over time. As such, the modest average increase observed in Germany may represent a continuation of an already strong labor orientation, instead of a marked shift.

The positive and statistically significant ATET observed for U.S. firms underscores a relative reinforcement in the share of value directed to employees, despite the predominance of a market-oriented governance model that traditionally prioritizes shareholder returns (Friedman, 1970; Jackson, 2010). This adjustment, emerging after controlling for firm-level financial characteristics, reveals that, compared to structurally similar German firms, U.S. companies have shifted relatively more value toward labor over the period analyzed. Although the effect is modest, this finding may reflect a growing responsiveness to social expectations, reputational pressures, or internal adjustments following labor market tensions and public discourse around stakeholder capitalism, particularly in the aftermath of the COVID-19 pandemic. The observed trend does not imply a systemic reorientation of the U.S. model. Still, it indicates that, under comparable financial conditions, a modest reconfiguration in the internal distribution of value has occurred.

The γ_6 metric, which describes changes over time in the share of value directed to tax contributions, reveals a highly significant negative effect (-0.292 ; $p < 0.01$), confirming that U.S. firms exhibited a substantially stronger reduction in tax-related allocations than their German peers, even when matched on firm-level financial characteristics. This robust result strengthens the conclusion from *Chapter 4.1*, where the average γ_6 was 0.906 for Germany and 0.668 for the U.S and suggests a deliberate divergence in the interaction between firms and the state across governance models. The robustness check confirms that this asymmetry is not merely a reflection of structural differences across firms, but indicative of a persistent gap in the fiscal role companies assume within each governance model. While German firms maintained stable fiscal contributions, the matched comparison highlights a clear decline among U.S. firms, pointing to regulatory differences or strategic tax optimization behaviors characteristic of liberal market economies.

In conclusion, the Propensity Score Matching analysis reinforces the main findings presented in *Chapter 4.1*, confirming that the intertemporal evolution of value distribution across shareholders and creditors remained broadly stable in both governance systems. The absence of significant differences in γ_1 to γ_4 after controlling for structural firm characteristics suggests that, even under comparable financial conditions, firms in the U.S. and Germany followed trajectories of relative stability in allocating value to financial stakeholders. The significant and persistent divergence observed in γ_6 further consolidates previous evidence that U.S. firms have reduced their tax contributions more sharply than their German counterparts, highlighting a structural asymmetry in the fiscal role assumed by companies within each governance model.

Importantly, the most compelling insight from the robustness check concerns γ_5 . While previous results indicated a modest upward trend in the share of value allocated to employees in both countries, the matching procedure revealed that U.S. firms increased this share significantly more than structurally comparable German firms. This result does not imply a fundamental shift toward stakeholder governance in the U.S. model, or that now they allocate a substantially higher share of value to employees, particularly given the modest average γ_5 coefficient observed in *Chapter 4.1* (1.023). It does suggest that, within the bounds of financial comparability, U.S. firms exhibited a relatively greater sensitivity in reinforcing the position of labor. Institutional differences may explain this result. In Germany, employee participation is already embedded through codetermination and other mechanisms (Hall & Soskice, 2001; Vitols, 2001), potentially limiting further upward movement in γ_5 , while in the U.S, where labor has traditionally played a more residual role in corporate governance, greater room exists for internal rebalancing.

Thus, the robustness tests confirm the consistency of the initial results and enrich the analysis by revealing latent patterns that were not fully captured, thereby strengthening the empirical foundation for the conclusions advanced.

5. Conclusion

This dissertation examined how companies in the U.S. and Germany have evolved in their orientation toward shareholders and stakeholders between 2015 and 2023. Using the γ metric developed by Alves (2022), the analysis provided a financial and objective lens to evaluate the internal allocation of value among key stakeholder groups. The goal was to understand whether the traditional governance models described in the literature have endured in the face of financial pressures, ESG performance, and the COVID-19 pandemic.

In the U.S., the results reveal a stable value distribution over time, confirming the persistence of a corporate behavior that aligns with the shareholder primacy model introduced by Friedman (1970), with profitability and solvency emerging as key factors influencing value distribution. Firms with stronger financial performance tend to allocate a larger share of value to shareholders, while reducing the relative weight assigned to employees and creditors. This pattern reflects a governance model shaped by market incentives and financial performance, where value creation remains focused on capital providers, and stakeholder interests occupy a secondary role, reflecting the market-oriented structure (Jackson, 2010).

On the other hand, German firms also maintained a consistent allocation of value across stakeholder groups throughout the period analyzed. However, while institutionally anchored in stakeholder coordination (Hall & Soskice, 2001; Jackson et al., 2004), this governance framework responds meaningfully to firm-level financial dynamics. Profitability increases the share directed to shareholders and taxes while reducing labor's relative position, solvency strengthens shareholder claims, and sales growth is associated with lower allocations to employees and creditors. These findings suggest an adaptive stakeholder model that adjusts value distribution in response to internal firm conditions, rather than imposing a rigid allocation pattern.

The Propensity Score Matching analysis reinforces the primary findings by confirming the overall stability in value allocation to shareholders and creditors across both governance models. While no significant differences emerged for γ_1 to γ_4 , the consistent divergence in γ_6 highlights a sharper decline in tax contributions among U.S. firms, reflecting structural asymmetries in fiscal responsibility. Most notably, the significant difference in γ_5 suggests that, under comparable financial conditions, U.S. firms increased labor allocations more than German counterparts. As highlighted, instead of signaling a shift toward stakeholder

governance, this outcome appears to reflect institutional asymmetries, as labor protection is already embedded in German corporate structures (Hall & Soskice, 2001), while U.S. firms retain greater discretionary space to adjust internal distributions in response to external pressures.

The COVID-19 pandemic did not produce a structural shift in corporate orientation but triggered context-specific adjustments. In the U.S., firms exhibited no statistically significant changes across stakeholder allocations, although slight value increases directed to employees and the state suggested temporary responses to social pressures. In Germany, a significant decline in creditor-related allocations indicates a reinforcement of stakeholder protection, particularly for employees, in line with coordinated market principles (Hall & Soskice, 2001; Vitols, 2001). Ultimately, the pandemic acted as a stress test rather than a transformative event.

Regarding ESG performance, the results suggest a limited and institutionally contingent influence on internal value distribution. In the U.S., higher ESG scores are modestly associated with reduced interest payments, suggesting enhanced financial credibility (Alves & Meneses, 2024; Ioannou & Serafeim, 2019). However, no consistent evidence links ESG to broader redistributive outcomes, reinforcing critiques that ESG often serves symbolic or efficiency-driven purposes (Gillan et al., 2021; Alves, 2023). The lack of variation in Germany reflects the structural embedding of stakeholder responsibilities (Matten & Moon, 2008).

So, this study provides clear answers to the *Research Questions* initially posed. Both U.S. and German firms maintained relatively stable value distribution patterns between 2015 and 2023, with no evidence of a structural reconfiguration in their governance orientation. Notably, firm-level financial fundamentals, particularly profitability, solvency, and sales growth, emerged as the primary determinants shaping internal stakeholder allocations, addressing *Research Question 1*. The COVID-19 pandemic, as explored in *Research Question 2*, did not cause a systemic shift but prompted targeted adjustments that reflected the logic of each governance model. Finally, in response to *Research Question 3*, ESG performance exhibited only limited influence, with marginal effects observed in the U.S. and no statistically significant patterns in Germany, underscoring the importance of institutional context in mediating the material impact of sustainability indicators.

Despite the robustness of the methodology and the sample's representativeness, this study has limitations. One of the main constraints lies in the composition of the dataset, which includes 102 U.S. firms and 61 German firms. Although these companies were selected from leading stock market indices, the S&P 500 for the U.S. and the DAX 40 and MDAX for Germany and thus reflect the largest and most influential firms in each country, they do not capture the full diversity of corporate structures across the two economies. Smaller firms, non-listed companies, and sector-specific dynamics may exhibit different patterns of stakeholder engagement and value distribution. Consequently, while the conclusions drawn offer valuable insights into national governance models, they are based on a subset of large, publicly traded firms. They should be interpreted with that scope in mind. Nonetheless, given the sampled firms' economic relevance and market capitalization, the findings provide a meaningful and broadly indicative perspective of the prevailing corporate orientations in the U.S. and Germany.

Future research could extend this analysis by exploring whether similar patterns are observed in other institutional contexts, such as emerging markets, Scandinavian countries, or Asian economies, where corporate governance frameworks and stakeholder dynamics differ substantially from those of the U.S. and Germany. Applying the γ metric to firms operating under hybrid or evolving governance regimes could provide further insight into the conditions that promote convergence or divergence in corporate orientation. In addition, sector-specific applications of the model could help uncover whether specific industries, such as technology, energy, or finance, demonstrate greater sensitivity to ESG pressures or external shocks, given their regulatory exposure or stakeholder complexity. Another avenue would be to expand the time horizon in future research to monitor whether the post-pandemic resilience or inertia in governance structures identified during the 2015–2023 period continues under renewed global challenges, such as inflation, climate regulation, or geopolitical instability. Finally, as regulatory frameworks for ESG disclosure continue to evolve and as stakeholder activism becomes more influential, future studies could examine whether these external pressures translate into measurable shifts in value allocation patterns and whether firms with higher ESG integration eventually exhibit more balanced stakeholder engagement.

6. Appendices

6.1. Appendix A - List of Variables

Table 7: List and description of the variables used in the analysis

Variable	Description	Source
γ_1	$\frac{(P\&L\ after\ Taxes_t) \div (P\&L\ after\ tax_{t-1})}{(Cost\ of\ employees_t) \div (Cost\ of\ employees_{t-1})}$	Data from Orbis
γ_2	$\frac{(Interest\ Paid_t) \div (Interest\ Paid_{t-1})}{(Cost\ of\ employees_t) \div (Cost\ of\ employees_{t-1})}$	Data from Orbis
γ_3	$\frac{(Cash\ Flow\ to\ Equity_t) \div (Cash\ Flow\ to\ Equity_t)}{(Total\ Value\ Added_t) \div (Total\ Value\ Added_{t-1})}$	Data from Orbis
γ_4	$\frac{(Interest\ Paid_t) \div (Interest\ Paid_{t-1})}{(Total\ Value\ Added_t) \div (Total\ Value\ Added_{t-1})}$	Data from Orbis
γ_5	$\frac{(Cost\ of\ employees_t) \div (Cost\ of\ employees_{t-1})}{(Total\ Value\ Added_t) \div (Total\ Value\ Added_{t-1})}$	Data from Orbis
γ_6	$\frac{(Taxes_t) \div (Taxes_{t-1})}{(Total\ Value\ Added_t) \div (Total\ Value\ Added_{t-1})}$	Data from Orbis
ESG_lag	ESG score lagged one year	Data from Refinitiv Eikon
ESG_COVID	Interaction: ESG_lag $\times$ COVID	Constructed
TOAS	Total assets (proxy for firm size)	Data from Orbis
SOLVRATIO	Solvency ratio ($\frac{Total\ Equity}{Total\ Assets}$)	Data from Orbis
ROA	Return on Assets ($\frac{EBITDA}{Total\ Assets}$)	Data from Orbis
SALESGROWTH	Year-on-year percentage change in total sales	Data from Orbis
TREND	Linear time trend variable	Constructed
COVID	Dummy = 1 for the years 2020 and 2021; 0 otherwise	Constructed
Treat_USA	Dummy = 1 for U.S. firms (treatment); 0 for German firms (control)	Constructed
pscore	Estimated propensity score (probability of being in the treated group)	Constructed

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