A Work Project, presented as part of the requirements for the Award of a Master's degree in Finance from the Nova School of Business and Economics.

HONEYWELL INTERNATIONAL INC. FIELD LAB

ON THE CONGLOMERATE DISCOUNT – VALUATION IF SEGMENTS OPERATED INDEPENDENTLY

MARGARIDA VAZ LEÇA DA VEIGA

Work project carried out under the supervision of:

Fernando Anjos

17/12/2024

Abstract

This study investigates the presence of a conglomerate discount – the notion that conglomerates, on average, tend to create less value than standalone companies – in the valuation of Honeywell International. Despite the stock trading at a premium, by employing both intrinsic and market-based valuation methods, along with key insights from conglomerate theory, the research finds a 9% discount – lower than commonly observed estimates. The study concludes that increased complexity, agency problems, and resource misallocation are the primary drivers of this discount. It is recommended to divest in underperforming segments and focus on strengthening the company's core business areas.

Key words

Honeywell, Conglomerate, Valuation, Field Lab, Discounted Cash Flow, SoTP, Comparables, Multiples, Precedent Transactions

I. Executive summary

This thesis examines the presence of a conglomerate discount in Honeywell International Inc., investigating whether the company's diversified structure creates or destroys value. Drawing on intrinsic valuations, through a Sum of the Parts valuation of Honeywell's business segments, and market-based multiples derived from comparable companies and precedent transactions, the study identified a 8% conglomerate discount. This figure, while lower than commonly observed estimates, suggests that Honeywell's current structure impacts its valuation negatively – despite the company trading at a premium.

This discount is primarily driven by operational complexity, potential agency problems and inefficiencies in resource allocation. The research shows that there is a mixed performance between the conglomerate segments, with aerospace and performance materials clearly benefiting from a separation from the remaining segments (building technologies, and safety and performance solutions). This highlights the challenges of managing a diverse portfolio and potential for value destruction through suboptimal capital allocation and strategic focus. To address it, the research recommends the divestiture of those underperforming segments, and a refocus on strengthening the core and overperforming segments. The research also identifies areas for improving future studies, including examining the optimal level of diversification for conglomerates, the role of investor behavior in perpetuating conglomerate structures, and a more granular analysis on the company's business units to refine the understanding of value creation (or destruction) within the conglomerate.

In conclusion, the study contributes to the ongoing debate on the value of corporate diversification; by quantifying the conglomerate discount and identifying its drivers, the research provides a foundation for informed decision-making and strategic direction of diversified corporate structures.

II. Introduction

Conglomerates have been a subject of intense debate in corporate finance due to the phenomenon of the "conglomerate discount." This concept refers to the market's tendency to value diversified corporations at less than the combined worth of their individual business segments. Such a discount is often attributed to inefficiencies inherent to managing diversified portfolios, including resource misallocation, increased complexity, and agency issues. Despite these challenges, conglomerates continue to play a significant role in the global economy, often leveraging diversification to stabilize cash flows, mitigate risks, and achieve synergies. As one of the largest and most diversified conglomerates globally, Honeywell International Inc. (Honeywell) provides an excellent case study to explore these dynamics. Operating across a broad spectrum of industries – ranging from Aerospace and Performance Materials to Building Technologies and Safety and Productivity solutions – Honeywell embodies both the strengths and challenges of a diversified corporate structure. This thesis investigates the valuation of Honeywell to quantify the conglomerate discount and assess the factors driving it. By employing a combination of intrinsic valuation techniques and market-based comparables, this study seeks to connect theoretical perspectives with practical implications for corporate managers and investors.

This research is driven by several key questions: First, what is the extent of the conglomerate discount experienced by Honeywell? Second, what are the underlying factors that contribute to this discount, and how do they align with established theoretical frameworks? And third, how can Honeywell or similar conglomerates effectively address these issues to optimize their valuation?

To address these questions, the study employs a mixed-methods approach, combining qualitative insights with quantitative valuation techniques. A Sum-of-the-Parts (SoTP) approach is used together with a Discounted Cash Flows (DCF) model to perform an intrinsic

valuation of Honeywell's business segments. This method enables a detailed analysis of the specific drivers of value for each segment, including cash flow generation, operating margins, and capital expenditure requirements. Additionally, market comparables and precedent transactions are analyzed to evaluate Honeywell's segments market-based valuation in the scenario where the segments were stand-alone. Sensitivity and scenario analyses are conducted to test the robustness of the findings and account for uncertainties in key inputs, such as discount rates and growth assumptions.

This thesis is structured to provide a logical progression from theory to practice. Following this introductory chapter, and a chapter aimed at providing context about Honeywell, the firm's performance and the industries that it operates in, the literature review delves into the academic discourse on conglomerate valuation, focusing on the drivers and implications of the conglomerate discount. The methodology chapter outlines the research design, valuation frameworks, and data sources employed in the study. The findings are presented and discussed in the discussion chapter, where they are contextualized within the broader theoretical and practical landscape. The thesis concludes with recommendations for corporate managers and investors, along with an exploration of the implications for future research.

This study holds significance for both academic and practical audiences. For academics, it provides an empirical examination of the conglomerate discount using contemporary valuation methods and real-world data. For practitioners, it offers actionable insights for managing the complexities of diversified corporate structures and mitigating the impact of the conglomerate discount. By focusing on Honeywell, a prominent player in multiple high-stakes industries, the study's findings are broadly applicable to stakeholders across various sectors.

In summary, this thesis aims to contribute to the understanding of conglomerate valuation by delving into the factors that drive the conglomerate discount. The detailed examination of Honeywell helps bridge the gap between theory and practice, offering valuable insights for

both academic research and practical application in corporate management and investment strategies.

III. About Honeywell

Evolution and operations overview

Honeywell International Inc. was founded in 1906 in the USA, initially as Honeywell Heating Company Specialty Co. Incorporated, and it specialized in the plumbing and heating business. Throughout the years, strategic mergers and acquisitions – including its pivotal 1999 merger with AlliedSignal – transformed Honeywell into a diversified global leader in industrial technology. In 2021, NASDAQ recognized Honeywell as a category-defining technology company for its contributions to advancing smart systems and connectivity. Today, it ranks as the 4th largest conglomerate globally, with a market value of $132 B in 2023 (Statista 2023). Honeywell operates in more than 70 countries, employs over 110,000 people, and serves diverse markets with cutting-edge technologies that drive operational excellence and sustainability.

The company operates primarily in 4 key segments: Aerospace, Building Technologies, Performance Materials and Safety and Productivity, serving industries ranging from aviation to energy, healthcare, and manufacturing. In the Aerospace segment, Honeywell is a major supplier of products, services, software, and licenses/intellectual property for aircrafts both to original equipment manufacturers and customers in several end-markets. The segment is divided into 3 business units: Commercial Aviation Original Equipment, Commercial Aviation Aftermarket, and Defense and Space. In the Building Technologies segment, Honeywell provides comprehensive solutions that enable customers to better manage their buildings through smart and digital maintenance, improving building performance (including energy efficiency and sustainability) and ensuring protection from security threats. Its diverse

portfolio includes advanced software applications, control systems, instruments for energy maintenance, among others. This business segment is divided into the Products and Business Solutions business units. In the Performance Materials segment, Honeywell develops high-performance chemicals and materials, advanced process technologies, and automation solutions to enhance operational efficiency and reliability and promote environmental sustainability. The business segment is divided into 3 units: Universal Oil Products, Process Solutions and Advanced Materials. Finally, in the Safety and Productivity segment, Honeywell is a major international supplier of a wide range of products and software that improve efficiency, workplace safety, and asset performance, while mitigating idle time and safety-related costs. The business segment is divided into the Sensing and Safety Technologies, Productivity Solutions and Services, and Warehouse and Workflow Solutions business units.

The industries

Drawing on insights from an article by Hivelr Business Review (2023), Honeywell operates in industries characterized by high entry barriers due to significant capital requirements, strict regulations, and the dominance of established players. For example, initial capital expenditures in Aerospace average $500 M, while economies of scale, longstanding supplier relationships, and established brand reputations give incumbents like Honeywell a competitive edge. Regulatory compliance and certifications add further complexity and cost, limiting new entrants.

Supplier power is notably strong in Honeywell's industries, as there are few vendors capable of providing high-quality specialized materials. Suppliers leverage this scarcity to charge a price premium, estimated at 15%, though Honeywell's long-term supplier relationships help mitigate costs by 10 to 20 percentage points on average. Intense consolidation through mergers and acquisitions has further strengthened supplier bargaining power, particularly in aerospace

manufacturing.

Currently there is little risk for product substitution in the industries in which Honeywell operates. However, rapid technological advancements may create a threat to product substitution, especially in central product lines, in which there is less differentiation. Those developments can attract customers if they provide higher efficiency. There are several competitors across all industries Honeywell operates in, increasing customer power for demanding a more competitive pricing and offering due to the relatively low switching costs – this effect is even more visible when referring to large customers, for example in frequent and large government purchases in the Aerospace market. However, because quality is one of the main concerns for some customers, Honeywell tends to regain some power over those buyers that are less price sensitive. Another important customer concern involves sustainability issues – approximately 83% of customers have the intention to purchase from sustainability preoccupied companies.

The high number of competitors across Honeywell's multiple industries creates a very intense competitive landscape. Most recently, the intense M&A activity in some segments also contributed to increasing competition and solidification. There are very aggressive pricing strategies in order to deal with high fixed costs, and to gain a competitive position in the market. To survive in these industries, there is a great need for investment in R&D, differentiation, and marketing, that can greatly influence purchase decisions.

Financial performance

Generally speaking, Honeywell is a financially healthy company. Over the past decade, the company's revenue has increased by an average of 3.3% per year, excluding the anomalies of 2020 and 2021 due to COVID-19. During the same period, gross margins have grown at an annual average of 6.0% and net income has remained stable. Regarding business segments,

Aerospace has consistently been the top performer, accounting for 37% of total revenue and 45% of total profit in 2023. This is followed by Performance Materials (31% of revenue and profit), Building Technologies (15% of revenue and 18% of profit), and, lastly, Safety and Productivity (15% of revenue and 11% of profit). The previous data was retrieved from past years Honeywell's annual reports.

When compared with industry peers, Honeywell outperforms the average industry player in some areas, while in others it performs on par with or below industry standards. Both Honeywell's average ROA (7.33%) and ROE (31.87%) outperform the 2023 industry averages of 6.49% and 15.68%, respectively, signaling that it is more effectively using its assets and shareholder's equity to generate profits than the regular competitor. The average industry price-to-earnings ratio stands at 19.68, while Honeywell presents a ratio of 16.21. This suggests that investors are not willing to pay a premium for Honeywell's earnings, reflecting the lack of confidence in its future growth potential. Naturally, this conclusion is highly influenced by Schneider Electric overperformance in the market. In terms of price-to-book, the industry average is 6.98 compared to Honeywell's 7.92, indicating that the market values Honeywell's assets more highly compared to its peers. Additionally, the EV/EBITDA ratio is 18.05 for the industry, whereas Honeywell's stands at 16.21 – suggesting that investors expect worse operational performance from Honeywell relative to its competitors. The last conclusion aligns with the price-to-earnings market expectations.

To perform this comparative analysis, 3M, Albemarle, Siemens, and Schneider Electric were considered. General Electric was excluded due to its recent announcement regarding conglomerate dissolution. The choice of these companies is sustained by various factors. Regarding size, even though only Siemens and Schneider Electric are aligned with Honeywell's EV, all these companies are large-cap corporations, ensuring a reasonable comparison in terms of scale and market influence. Despite not covering the exact same

portfolios and industries, all companies have a similar degree of diversification and together cover the 4 main segments of Honeywell. 3M covers the aerospace, industrial and safety industries; Albemarle covers specialty chemicals; Siemens and Schneider Electric cover industrial automation, building technologies, and energy management. Additionally, these competitors present strong international operations, allowing a fair level of comparison of global market strategies and performance. Moreover, financial metrics can be meaningfully compared due to their similar business models and end-market focus. In several segments, these companies compete directly or indirectly with each other, providing insights into relative market positioning and competitive strengths. Finally, the last factor used was their sustainability commitment and environmental responsibility. The previous information about Honeywell and its competitors was retrieved from Yahoo Finance, using the most recent quarter data (9/30/2024).

Strategic performance and future outlook

Honeywell's global presence across diverse industries and markets has allowed it to build a robust customer base and cater to a wide range of needs. The company has established strong relationships with stakeholders, including customers, suppliers, and government bodies, fostering a valuable brand reputation, stable supply chains, and significant global capacity (Brand Directory 2024). Its substantial investment in R&D (approximately $1.5 billion in 2023) highlights its commitment to innovation and securing growth prospects (YahooFinance 2024).

However, Honeywell operates in highly technology- and performance-driven industries that are vulnerable to technological disruptions. This increases pressure to differentiate products, drives intense price competition, and strains gross margins. Additionally, the firm’s reliance on single suppliers in some segments, such as AJW Group in the Aerospace sector, exposes

the company to supply chain disruptions and performance risks (AJW Group 2023). Also, the Aerospace segment generates a large portion of Honeywell's overall profit margin 45%), which, when combined with its dependence on government contracts (25% of revenue), makes the company susceptible to regulatory and political uncertainties (Ramirez 2024). Furthermore, managing Honeywell's complex global operations requires navigating a wide array of compliance requirements, adding to the company's operational challenges.

Despite these challenges, Honeywell is well-positioned to capitalize on significant opportunities. The global aerospace industry, for instance, is projected to grow at a CAGR of 5% until 2028 (Schmidt e Barbier 2024), expanding from $374 B to $792 B (Precedent Research 2024). While North America currently accounts for 46% of industry revenue, the Asia-Pacific region is expected to experience the fastest growth, driven by population increases and investments in defense and commercial aviation in countries like China and India. Emerging sectors, such as space tourism and urban air mobility, as well as a focus on eco-friendly and fuel-efficient aircraft, represent opportunities in mature markets like Europe. Other markets where Honeywell operates also show strong growth potential. The global smart building market, valued at $108 B in 2023, is forecast to grow at a CAGR of, through 2032, (Dhaptel 2024) fueled by the rise of smart cities in developing regions and increasing investments in energy-efficient infrastructure. Moreover, the market for Performance Materials is anticipated to witness significant growth to $228 B in 2032, at a CAGR of approximately 5% (Acumen Research And Consulting 2023), mainly due to shifting consumer preferences and technological advancements as well as the trend towards eco-friendly solutions. Finally, the safety and security market is currently valued at $6.12 B, with expectations to grow at an annual CAGR of 6% until 2030 (Fernandes 2024), driven by demand for automation and workplace safety solutions, especially in sectors like turbomachinery and automotive manufacturing.

In conclusion, Honeywell's diverse portfolio and global presence underscore its strategic importance in the conglomerate discussion. While its extensive operations create opportunities for synergy, they also highlight the inherent complexities and risks associated with diversified structures. These dynamics set the stage for deeper exploration into Honeywell's valuation and its manifestation of the conglomerate discount.

IV. Literature review

The conglomerate discount has long been a focal point in corporate finance literature, sparking debates about the value-creation potential of diversification. This chapter synthesizes key theoretical and empirical perspectives on conglomerate valuation, situating Honeywell as a critical case for understanding these dynamics. By exploring seminal works and contemporary studies, this review provides the conceptual foundation for analyzing Honeywell's performance.

What is a conglomerate

As previously stated, a conglomerate company is a large corporation that owns a collection of diverse businesses operating in various industries. These businesses are often unrelated in terms of their core activities, and they typically manage a portfolio of companies through a centralized corporate structure, leveraging resources and strategic oversight to enhance overall performance.

Why firms become conglomerates

The literature suggests that firms typically diversify seeking risk mitigation, growth opportunities and/or operational and financial synergies. By operating in multiple industries,

conglomerates can reduce the volatility of their cash flows, as stronger performance in one division may offset weaker performance in another. This stability is particularly valuable for companies that face cyclical demand in their core industries. According to empirical data, divisions in conglomerates tend to be more resistant to industry distress relative to single-segment firms, exhibiting higher sales growth, higher cash flows, and higher expenditures on R&D (Dimitrov e Tice 2006). The fact that the conglomerate firm has more stable earnings when compared to a single-segment firm, and that, in the case of distress, it is able to sell its assets in industries that suffer less from liquidity issues, makes its debt capacity larger. In this case, the benefits of tax shields are larger, and, consequently, its market value is higher too (Servaes 1996). Regarding growth opportunities, they are more easily found in less developed industries and are sought after mainly when the core business is in a more competitive and/or mature industry. This effect is enhanced by the winner-pick phenomenon – the firm leverages its size, expertise, and resources to identify and strategically reallocate capital and talent to best-performing business units, reducing the exposure to risk of less successful industries. This investment funneling diverts managerial attention into the most promising divisions, accelerating the growth of starting performers. The exploitation of operational synergies – through resource and competence sharing – is driven by a cost-cutting strategy to improve profitability. In terms of financial synergies, access to internal capital markets (ICM) is one of the most relevant benefits of as it allows divisions to finance their individual projects without intervention from external financial markets and institutions, eliminating financing constraints and dependencies, as well as information asymmetries, and leading to more efficient capital allocation (Maksimovic e Philips 2007). If the information asymmetries are too large, the most likely it is for firms to forego positive NPV value projects. As information travels freely between conglomerate units, the costs and frictions of information acquisition about the company and the industry are lower when compared to single-unit companies. Finally,

managers sometimes pursue diversification for less rational or beneficial motives, but rather personal ones (e.g., empire building) at the expense of shareholder interests.

Additionally, when an industry enters a decline, the firm's existing talent and competences may no longer be a good and competitive fit for the industry in question. In those cases, some firms opt to diversify into other industries in which those organizational competences can be effectively applied to maintain a competitive position.

What is the conglomerate discount

The conglomerate discount refers to a phenomenon whereby the market assigns a lower overall value to a diversified company compared to the combined value it assigns to its individual parts, divisions, product lines, units, or subsidiaries (Bunim 2005). This definition implies that there are inefficiencies or complexities that investors believe make the conglomerate less valuable.

Over time, there has been some divergence in opinions around the conglomerate discount. Those opinions generally fall into one of three categories:

1) Conglomerate diversification destroys value: This is the position that gathers most consensus across academics. Land & Lutz (1994) introduced the idea that the market undervalued conglomerates compared to a similar portfolio of single-segment firms, due to inefficiencies in ICM. Later, Berger & Ofek (1995) supported this idea by indicating a conglomerate discount due to a misallocation of resources and estimated that diversified firms traded at a 13% to 15% discount compared to the imputed values of their divisions as standalone entities.. In 1998, Shin & Stulz suggested that conglomerates overinvested when opportunities were lower, and underinvested when those were high. Finally, Maksimovic & Philips (2002) found that conglomerates were less productive than similar stand-alone firms.

Corporate restructuring events have provided further insights into investor preferences.

Studies like Deasi & Jain (1999) found that spin-offs and divestitures of non-core divisions generally resulted in positive stock price reactions. Conversely, diversification-increasing acquisitions led to negative market responses, suggesting that investors favor firms with a sharper focus on core operations. This trend aligns with the view that increased focus improves efficiency and capital allocation. Ahn & Denis (2004) attributed post-restructuring improvements to better investment efficiency and capital management.

Furthermore, empirical studies show the discount's magnitude varies across markets and contexts. For instance, Lins & Servaes (1999) demonstrated cross-country differences in conglomerate valuations. German firms exhibited a smaller discount of approximately 6%, attributed to stronger shareholder protections, while Japanese firms showed a larger discount due to weaker governance and market discipline. This highlights the influence of institutional environments, governance structures, and legal frameworks on conglomerate valuations. Sectoral differences also play a significant role. Technology conglomerates, such as Alphabet and Amazon, tend to command premiums due to their ability to generate synergies from data and platform economics. By contrast, industrial conglomerates like Honeywell face challenges in creating visible synergies across unrelated business units. The increasing importance of ESG factors in corporate strategy further complicates this landscape. Firms with clear commitments to sustainability, such as Honeywell's efforts to achieve carbon neutrality, may mitigate part of the discount by aligning with investor preferences for environmentally responsible practices.

2) Diversification discount results of sampling bias: More recently, other authors have started to question the existence of a conglomerate discount, arguing that it is purely a result of sampling selection bias. In 1994, Lang & Stulz reported that conglomerate firms were already underperforming prior to its diversification. According to Campa & Kedia (2002), "A firm's choice to diversify is likely to be a response to exogenous changes in the firm's

environment that also affect firm value", consistent with Graham, Lemmon & Wolf (2002) conclusion that diversified firms acquire assets already undervalued relative to the industry. Many of these authors believe that once the sampling bias is out, the conglomerate discount drops or is even eliminated.

3) Conglomerate diversification creates value: Villalonga (2004) was a pioneer to the idea that conglomerates do not destroy, but in fact create value. His theory claims that previous models are weak because they rely solely on segmented data. Although there is a diversification discount when segmented data is used, it ceases to exist when data is broken down into business units. In that case, on average, the conglomerate firms trade at a higher value than single-industry firms. Hund, Monk & Tice (2012) also support this premium, arguing that the discount is purely a result of not properly accounting for differences between firms. The discount is then a result of matching mature, larger, more profitable, and less volatile firms with immature, smaller, less profitable and more volatile firms. When those differences are taken into consideration, conglomerate firms tend to have a premium, on average. In fact, Khanna & Palepu (2000) demonstrated that in emerging markets with underdeveloped institutions, conglomerates can mitigate market inefficiencies by providing internal capital markets (ICM), managerial expertise, and risk diversification. Maksimovic & Phillips (2002) similarly found that efficient resource allocation within well-managed conglomerates could offset traditional inefficiencies and lead to superior valuations. Springer (2016) identified an "optimal diversification" model, suggesting that conglomerates with either five equally weighted divisions or a dominant core business accounting for about 75% of sales achieved higher valuations. Such structures enable balanced resource allocation and effective risk management, enhancing overall value.

Factors driving conglomerate discount

One of the key drivers of the conglomerate discount is the inefficiency in capital allocation within diversified firms. Importantly, the theoretical benefits of ICM – that is, the ability to allocate capital more efficiently by reallocating resources to projects with higher net present value – are often accompanied with agency problems that reduce that efficiency. Jensen (1986) points out that when conglomerates have excess cash flow, managers tend to over-invest and fund projects with negative net present value, thus decreasing shareholder value.

Harris et al. (1982) point out that under diversified firms, information asymmetries between centralized management and the corresponding subunit leaders often prevent optimal investments. This hampers capital budgeting and makes it difficult for conglomerates to prioritize projects effectively, especially when each division operates in a different industry with distinctive requirements. Moreover, Wulf (2002) states that resource allocation within conglomerates can be distorted by power, as established divisions often leverage their presence to secure capital at the expense of growing segments. This preferentialism restricts the flexibility needed to adapt to new market opportunities, limiting the conglomerate's growth potential and increasing investor skepticism.

The misalignment of incentives is yet another driver of the conglomerate discount. As Aron (1988) and Rotenberg and Saloner (1994) explain, traditional incentives like stock options are less effective in conglomerates because division managers are primarily focused on their segment's performance. This focus creates a disconnect between division goals and the company's overall strategy, as managers may pursue actions that benefit their own unit but detract from the firm's total value.

Lastly, the operational complexity in managing diverse divisions often results in a lack of strategic focus. According to Koenig, Koller, and Luu (2021), conglomerates struggle to apply a unified operating model across varied business units, each with different needs and priorities.

How to quantify the discount

Researchers often rely on comparable valuation techniques to investigate the conglomerate discount. This approach analyses the valuations of similar stand-alone companies and compares them to the valuation of the conglomerate entity in order to quantify the discount applied by the market. There are 3 main ways to value the firms:

1) Tobin's q valuation: Tobin's q is calculated as the ratio between the market value of the firm's assets and the replacement value of those assets, that is: $\frac{(MVS + MVD)}{RVA}$, where MVS is market value of stock, MVD market value of debt, and RVA the replacement value of all production capacity. The ratio can be interpreted as a measure of growth opportunities, that is, the larger the q, the larger the growth prospects of the firm. Naturally, the larger the growth prospects of a firm, the larger its market value (Servaes 1996). Researchers compare the average (or median) q value of single segment with multi-segment firms, to understand which is more valuable. Throughout time, many authors have arrived at different values, based on their research specifications that led to different q ratios, for example: raw q ratio, q ratio adjusted to primary industry, q ratio adjusted to the equally weighted average of all the firm's 2-digic SIC codes. The major concern associated with using Tobin's q is the fact that both the market value of debt and the replacement value of the firm's assets components must be computed, increasing the margin for error.

2) Multiples valuation: In order to value the conglomerate firms, several researchers used a multiples approach. One approach to multiples valuation would be start by computing the benchmark market-to-book and market-to-sales ratio for each of the single-segment firms that operate in the matching industries; afterwards, the estimated value of the firm is computed by benchmarking those ratios to the weights of the assets that the conglomerate has employed in each of its segments. A simpler alternative approach would be to gather EV/EBITDA data for comparable companies and computing the firm's value based on the average industry

multiple and the firm's own EBITDA.

3) Sum-of-the-parts valuation: The sum of the parts valuation lies with finding the intrinsic value of the firm's business divisions and comparing it to the overall market capitalization.

Factors that contribute to conglomerate success

According to Shulman (2017), the conglomerate discount applies 55% of the time, implying that the remaining 45% actually benefit from a premium. This premium is often attributed to the strict criteria conglomerates use when selecting industries to invest in and the rigorous adherence to their operating principles. Premium conglomerates typically engage in businesses with similar strategies and economics, managed uniquely and consistently with a strong emphasis on accountability. Success in these firms is driven by alignment in terms of price range, degree of customization, customer type, sales channel, and service levels, allowing managers to operate different divisions in a similar manner.

Ruthless accountability, which stems from ambitious improvement goals reinforced by compensation structures, plays a crucial role. Leinwand & Mainard (2012) support this by emphasizing the importance of leveraging the most distinctive and significant capabilities of the company. They argue that coherence is key to success, regardless of the degree of diversification. This involves applying critical capabilities across all business units without forcing scale that would increase costs and complexity. Diversified firms should first ensure coherence within each BU to develop strong value propositions and supporting capabilities. Only then should they focus on identifying shared capabilities across units, such as approaches to managing human capital, manufacturing, technology, or customer service systems.

Shulman (2017) also highlights that top-performing conglomerates achieve 70% of their growth organically, with the remaining growth coming from acquisitions that yield good

returns and efficiency gains. Additionally, Puranam (2015) points out the importance of an internal intellectual capital market, where problem-solvers collaborate with less friction and more organizational support than in unconnected firms. Finally, continuous improvement processes, such as Kaizen, are commonly deployed by premium conglomerates to ensure ongoing progress and momentum.

The success of conglomerates lies with a delicate balance of strategic coherence, robust governance, financial caution, and continuous innovation. Additionally, leveraging synergies across different divisions and fostering an environment of continuous improvement are key in maintaining competitive advantage. These factors are not isolated but interconnected, each further strengthening the others to build a highly adaptive and resilient firm.

Related studies

As one of the largest firms in the world, Honeywell faces the scrutiny of numerous analysts and researchers. Over the years, studies have focused on how the firm responds to challenges such as operational complexities, regulatory risks, and resource allocation inefficiencies. The two most relevant topics for our study are Honeywell's recent spin-off strategy and its impact on the brand's valuation. In recent years, Honeywell has strategically addressed the conglomerate discount through spin-offs and divestitures. In 2018, the firm spun off its Transportation Systems and Homes businesses to focus on its higher-growth segments. According to analysts, the spin-offs were intended to streamline Honeywell's operations and management, which are more complex due to the varying regulatory environments and market demands (Barron's 2018). In 2024, the firm announced that it would be spinning off its Advanced Materials division to further focus on aviation, automation and energy transition while improving organic sales growth, reducing capital intensity, reducing the cyclicality of sales and enhancing free cash flow generation capability (Honeywell 2024). This spin-off

strategy aligns with research suggesting that conglomerates often face valuation consequences due to operational and managerial complexity. By divesting non-core assets, Honeywell improves its strategic focus and reinvest in divisions with higher growth potential. The literature supports this approach, noting that companies which streamline their portfolios by divesting unrelated or low-growth segments tend to be valued higher (Koller, Goedhart e Wessels 2015). For Honeywell, this strategy not only clarified its market focus but also helped reduce capital expenditure and management expenses associated with its former divisions. As Forbes (2018) reported, these moves were well-received by investors, boosting Honeywell's share price and reducing some of the valuation gap attributed to the conglomerate discount.

Other firms which have been analyzed include General Electric (GE) and Siemens, for example.

General Electric's well-documented struggles provide a counterpoint to Honeywell's approach. Once a hallmark of diversified success, GE faced significant challenges in managing its extensive portfolio, leading to a decision to break up into separate entities focused on healthcare, aviation, and energy. This move reflected a broader market preference for focused, single-segment firms. By contrast, Honeywell has resisted such a strategy, relying instead on targeted divestitures and acquisitions to optimize its portfolio while retaining its conglomerate structure. Siemens, on the other hand, represents a successful diversification model. With a strong focus on industrial automation, digitalization, and sustainability, Siemens has managed to integrate its business segments cohesively. Its emphasis on R&D and a clear strategic direction has allowed it to maintain a competitive edge in European and global markets. Compared to Siemens, Honeywell appears to lag in digital transformation and sustainability alignment, despite its efforts to invest in energy-efficient technologies.

The literature reveals a complex interplay between diversification benefits and inefficiencies,

illustrating why conglomerates often face valuation discounts. While empirical evidence highlights challenges in resource allocation and managerial complexity, recent research suggests potential for value creation through strategic coherence. These insights frame the methodological approach of this thesis, aiming to quantify Honeywell's conglomerate discount and explore its underlying drivers.

V. Valuation methodology

To quantify Honeywell's conglomerate discount and identify its drivers, this study employs a rigorous methodological approach combining intrinsic and market-based valuation techniques. The use of Sum-of-the-Parts (SoTP) and Discounted Cash Flow (DCF) models enables a granular intrinsic analysis of Honeywell's segments, while market comparables provide external validation. This chapter outlines the data sources, valuation frameworks, and analytical tools used to achieve robust results.

Honeywell's segments intrinsic valuation

The primary goal of this analysis was to assess whether Honeywell is worth more or less relative to the scenario where its constituent businesses were standalone companies. To measure the intrinsic value of the conglomerate, a Sum of The Parts (SoTP) approach was employed to Discounted Cash Flow (DCF) models of each segment in which Honeywell operates. The enterprise value – the sum of the values found for each segment – was found to be $151,712 M.

Honeywell's stand-alone segments valuation

The second part of the analysis entailed estimating how much each of Honeywell's segments would be worth if it operated on its own. The analysis, which was done through a Multiples Approach, was done in 3 ways to counteract the simplicity that is inherent to this approach.

The methods employed differ in the way that comparable firms were chosen.

First, the valuation of each segment was made using companies categorized with the NAICS code that covered and was more representative of the largest part of the segment. The NAICS industry codes used were 33641 – Aerospace product and parts manufacturing; 334512 – Automatic environmental control manufacturing for residential, commercial, and appliance use; 325998 – All other miscellaneous chemical product and preparation manufacturing; 334519 – Other measuring and controlling device manufacturing, for the Aerospace, Building Technologies, Performance Materials, and Safety and Productivity segments, respectively. Given the small sample size, outliers were identified as observations whose EV/EBITDA deviated by more than two standard deviations from the mean multiple of the respective segment. By removing outliers, it is ensured that only values that are aligned with the industry are included, preserving the reliability of the analysis.

The second method relied on a more selective choice based on both Honeywell's own evaluation of each market and identification of key competitors – in particular, the companies identified in the company's Annual Report of 2023 –, as well as research about other companies' size, business model, financial and operational performance, etc.. Regarding the Aerospace segment, L3 Harris, Northrop Grumman, and RTX Corporation were chosen because they have a similar portfolio to Honeywell's, focused on aerospace and defense, with strong ties to government and military spend. Besides that, the competitors' involvement in large-scale, global, and long-term projects allow smooth comparison in terms of risk management and long-term value creation strategies. In a more international perspective, Thales and Safran offer additional European perspective on the market referred above, with the extension to the commercial market, also a field in which Honeywell operates. All the previous competitors are aligned with Honeywell's size, growth rates and profit margins for the segment. Finally, Garmin was the last competitor chosen for the segment. Although smaller

and more specialized, it was selected because of its higher profit margins allowing comparisons in operational efficiency. Moreover, its exposure to consumer and aviation markets offers insights on how diversification within a segment is valued compared to Honeywell's broader approach. The choice of competitors for Building Technologies was more restricted, given that many competitors operate as a conglomerate, and taking them into consideration would certainly skew the data. Nonetheless, Carrier Global and Johnson Controls were chosen because of its similar focus in building efficiency technologies, with special focus in North America and Europe. The last competitor to be chosen was Schneider Electric, whose offer is particularly similar to Honeywell's in energy management and automation solutions. Furthermore, this company has a focus strategy on sustainability and digital transformation that allows an interesting comparison with Honeywell given its core strategic focus on eco-friendly solutions. Regarding Performance Materials, 2 sets of comparable companies were chosen depending on their portfolio offering. Starting with ABB, Rockwell Automation, Emerson Electric, and Schneider Electric, all offer high-performance industrial specialties and technology-driven solutions for industrial sectors. These companies have healthy margins and growth rates similar to Honeywell's, as well as global market coverage. The second set of companies – Arkema and Chemours – have a product offer more aligned with the specialty materials portion of Honeywell's portfolio – although the latter is more focused on chemical solutions, serving as a good benchmark for more specialized work. Both competitors are aligned with the international market that the conglomerate operates in, and have similar size to the segment, allowing a more rigorous risk assessment. Finally, it is worth emphasizing that ABB, Chemours, and Schneider Electric have strong long-term strategic focus on sustainability, also aligned with Honeywell's strategy, serving, once again, as a good point for comparison. Finally, in the Safety and Productivity segment, 3 sets of companies were chosen. First, Kion Group, which specializes in material handling equipment

and supply-chain solutions, with an international presence and exposure to industrial automation, similarly to Honeywell. Second, MSA Safety Incorporated, global leader in the development of safety products and personal protective equipment, with high investment in R&D for innovation. The last group of companies includes TE Connectivity and Zebra Technologies, both covering an essential part of the portfolio of this segment: enterprise intelligence and connectivity, and sensor solutions. Additionally, similarly to Honeywell, those companies serve the automotive, industrial, and aerospace industries. The competitors present moderate to high growth and healthy operational margins serving as good candidates for benchmarking purposes. Once again, outliers were identified and removed using the same technique as the previous method.

For both the first and second methods the data was retrieved from Yahoo Finance, using the most recent quarter data (9/30/2024).

The last method for comparable selection used relied on precedent transactions in each segment. This entailed analyzing the EV/EBITDA multiples of companies involved in M&A transactions in the past to estimate the current value of Honeywell. It assumes that multiples observed in recent acquisitions or mergers provide a reliable basis for assessing Honeywell's market value. Data was collected on 199 transactions over the past 10 years, focusing on the acquirer, the target, and their respective EV/EBITDA ratios, sourced from Bloomberg database. Once more, outliers were excluded from the analysis, using a more appropriate method – this included removing all observations below the 5th percentile and above the 95th percentile. It is a standard practice that is widely adopted in data analysis and ensures that the effect of abnormally extreme values does not bias the results and maintains statistical significance, while avoiding arbitrary and excessive trimming. Data was collected using the appropriate SIC codes for each segment: Aircrafts and Parts, Infrastructure Software and Industrial Automation Control, Specialty Chemicals, and Security Services for the Aerospace,

Building Technologies, Performance Materials, and Safety and Productivity, respectively.

The valuation process for all methods then required retrieving data regarding EV and EV/EBITDA of all companies of interest (in the case of the precedent transactions method, this corresponds to the EV/EBITDA of the acquired company). Then, the average EV/EBITDA ratio was computed for each segment. Reaching the valuation of each segment required making an adjustment to Profit – which, in Honeywell's annual report, is measured as segment income before taxes and interests –, such that EBITDA was calculated by subtracting the D&A from Profit. Finally, Honeywell's EV was the sum of the company segments' EBITDA after these were multiplied by the corresponding segment's average EV/EBITDA. In the end, the firm's market capitalization was calculated by subtracting Net debt from the EV.

Under the NAICS code-based method, the market capitalization was estimated at $129 M, with an implied growth rate of 4.23% and a share price of $190.65. Similarly, the competitor-based valuation yielded a higher market capitalization of $152 M, corresponding to an implied growth rate of 4.88% and a share price of $227.20. The precedent transaction-based approach resulted in a market capitalization of approximately $120 M – implying a terminal growth rate of around 3.98%, and a share price of $180.25. The following table summarizes the EV/EBITDA multiples for all segments and all valuation methods and Honeywell's implied EV.

	Aerospace	Building Technologies	Performance Materials	Safety and Productivity
NAICS code-based approach				
EV/EBITDA	17.40	14.92	9.48	16.20
Implied value	69,726	24,043	28,611	17,361
Competitor-based approach				
EV/EBITDA	18.73	19.45	15.16	15.84
Implied value	75,070	31,348	45,728	16,977
Precedent transactions-based approach				
EV/EBITDA	15.76	28.50	14.96	10.24
Implied value	63,175	45,946	45,130	10,980

Table 1: *Comparable firm's EV/EBITDA average ratio and valuation of Honeywell's segments in the scenario where the segments were stand-alone.*

The sensitivity analysis performed to this valuation consisted of observing the EV for variations of 10% and 20% to all the precedent transactions' average EV/EBITDA simultaneously. Naturally, this simply results in estimated EV 10% or 20% lower or higher than the base scenario, i.e., for example, according to the precedent transactions valuation, $132,185 M in the lowest-multiples case and $198,277 M in the highest-multiples case.

	EV/EBITDA				
	Base - 20%	Base - 10%	Base	Base + 10%	Base + 20%
Total	**132 185**	**148 708**	**165 231**	**181 754**	**198 277**
Aerospace	50 540	56 857	63 175	69 492	75 810
Building Technologies	36 757	41 351	45 946	50 540	55 135
Performance Materials	36 104	40 617	45 130	49 644	54 157
Safety and Productivity	8 784	9 882	10 980	12 078	13 176

Table 2: *Sensitivity analysis performed on Honeywell's segments value, varying comparable firms' EV/EBITDA average ratio. Currency values are in $M.*

VI. Discussion

The following discussion focuses on the conglomerate discount observed in Honeywell's valuation, which reflects the inefficiencies and complexities inherent to its diversified structure. Despite Honeywell's strong financial performance and strategic initiatives, including M&A activity in high-growth sectors, the company faces a discount when compared to standalone single-segment firms. The conglomerate discount is partly attributed to challenges like resource misallocation, managerial inefficiencies, and the difficulty in capturing synergies across different business units. The analysis examines how this discount is influenced by both internal factors and external market conditions, suggesting that Honeywell's diverse portfolio may not fully capture its value potential.

Quantification of the conglomerate discount and potential reasons

Despite trading at a premium, the analysis suggests that Honeywell does indeed suffer a conglomerate discount of approximately 8% according to the comparable competitors and precedent transactions valuation methods. The valuation method using NAICS codes relies on a relatively small sample size of 19 data points, such that some concerns may be raised regarding the robustness and quality of the data, especially when it is considered that data selection was merely based on data availability with representativity of the segments' average in mind. In contrast, the precedent transactions analysis was based on a larger dataset – 199 transactions –, providing greater statistical significance and reliability, and the comparable competitors analysis relied on a thorough examination to achieve a higher degree of similarity. So, the latter two are considered to be a better basis for this analysis. The discount was calculated by comparing the EV from the multiples-based approaches against the DCF valuation of the company as a whole. The results are in **Table 5**.

	Estimated value	Difference to DCF SoTP	Difference to DCF SoTP (%)
DCF SoTP			
Aerospace	69,171		
Building Technologies	19,080		
Performance Materials	50,208		
Safety and Productivity	13,253		
Honeywell	151,712		
NAICS code-based approach			
Aerospace	69,726	-555	-0.80%
Building Technologies	24,043	-4,963	-26.01%
Performance Materials	28,611	21,597	43.01%
Safety and Productivity	17,361	-4,108	-30.99%
Honeywell	139,741	11,971	7.89%
Competitor-based approach			
Aerospace	75,070	-5,899	-8.46%
Building Technologies	31,348	-12,268	-51.02%
Performance Materials	45,728	4,480	15.66%
Safety and Productivity	16,977	-3,724	-21.45%
Honeywell	169,122	-17,411	-12.46%

Precedent transactions-based approach			
Aerospace	63,175	5,996	7.99%
Building Technologies	45,946	-26,865	-85.70%
Performance Materials	45,130	5,077	11.10%
Safety and Productivity	10,980	2,274	13.39%
Honeywell	165,231	-13,519	-7.99%

Table 3: *Summary of valuation of Honeywell and its segments according to the 4 used methodologies. Results of the implied conglomerate discount and its breakdown by segment. Currency values are in $M.*

This value is lower than what Berger & Ofek (1995) estimated the average discount is, as they claimed that diversified firms traded at a 13% to 15% discount relative to single-segment firms. From the literature it became clear the magnitude of the discount results of the strength of the trade-off between several topics. In fact, although merging several businesses may generate synergies – human capital, manufacturing, technology or customer service systems –, it can also generate managerial inefficiencies due to the complexity of dealing with multiple business units. If the value found by Berger & Ofek (1995) is taken as reference, then it appears that while the conglomerate structure does negatively affect Honeywell's shareholders, the discount may be smaller than it commonly is, thus reflecting Honeywell's capability of outperforming the market and better managing its financing and operations. Interestingly, while the Building Technologies segment significantly underperforms its peers, dragging down overall valuation, the other segments – Aerospace, Performance Materials, and Safety and Productivity – appear to benefit from the conglomerate model. Note that these segments may actually be suffering from value destruction as well, as their inherent strengths and synergies with Honeywell's managerial expertise and shared resources could yield even greater value under an optimized organizational structure, but there is no way to take conclusions about this. This highlights a dual dynamic: while diversification dilutes some of the valuation benefits for certain segments, others perform strongly enough to mitigate the overall impact of the discount.

From a segment point of view, the Aerospace segment performs surprisingly well within the conglomerate framework, defying expectations that its stringent regulatory, technological, and operational requirements would diminish cross-segment synergies. Its strong market presence and scale leverage the shared resources and financial stability of the larger organization, resulting in a premium valuation relative to single-segment firms. In contrast, the Building Technologies segment underperforms relative to its peers, highlighting challenges in fully capturing the potential synergies of the conglomerate model. Even with access to Honeywell's centralized technological and managerial resources, this segment struggles to achieve the operational focus and efficiency of more specialized single-segment firms, reflecting difficulties in maintaining competitive differentiation and delivering tailored solutions across diverse markets. The challenges faced by the Building Technologies segment highlight its significant drag on Honeywell's overall valuation and suggest a need to reassess its strategic role within the conglomerate. Meanwhile, the Performance Materials segment thrives within Honeywell's conglomerate framework, showcasing the benefits of shared innovation capabilities and operational expertise. Its extensive portfolio of advanced materials and process technologies benefits from cross-segment collaboration, particularly in R&D and supply chain optimization. By leveraging Honeywell's global infrastructure and financial strength, this segment maintains a premium valuation and demonstrates strong growth potential, outperforming comparable single-segment firms. The Safety and Productivity segment exemplifies the challenges and opportunities of operating within a conglomerate structure. Its diverse portfolio – ranging from safety equipment to warehouse automation – benefits from Honeywell's centralized support systems and global reach. However, the smaller premium of this segment may be due to the diversity of sub-segments, which require specialized management and creates barriers to maintaining a cohesive strategic direction. Despite these challenges, the segment's ability to tap into broader corporate resources ensures

a competitive edge and a valuation premium over single-segment peers.

Recommendations

Following the previous discussion on Honeywell's valuation and implications for conglomerate structures, a set of targeted recommendations was developed. Recommendations can be divided into 3 groups: general conglomerate managers, Honeywell's management, and Honeywell current (or potential) investors.

Considering general conglomerate management, there are strategies that can improve performance and, in fact, create a premium in opposition to a discount. Best practices include selecting rigorous criteria for industry selection, restricting it to industries that are in accordance with the company's core operating principles and megatrends, and in alignment with defining-business elements (price, customer type, etc.). This allows managers to operate different business segments in a similar manner increasing the probability of generating financial and operational synergies. The creation of synergies is also highly influenced by the identification and leveraging of valuable capabilities across segments – without forcing scale, otherwise compromising management simplicity and costs. Managers should try to achieve most of their growth organically, as empirical evidence suggests that 70% of top performing conglomerate growth is achieved internally – M&As are to be pursued only when they have the potential of complementing the existing portfolio, yielding good returns and efficiency enhancements. Finally, there must be a culture of constant innovation and improvement, following Kaizen's principles, ultimately ensuring continuous progress, competitive advantage, and business momentum. In order to measure the efficiency of these measures, managers should conduct annual strategic reviews to assess if each business unit continues to create value and align with overall corporate strategy.

Regarding Honeywell's management, the discount suggests inefficiencies in its current

structure. As mentioned above, the conglomerate portfolio must generate value and consequently be aligned with current megatrends – the most significant being automation, aerospace, and energy transitions. The main suggestion for managers includes the strengthening or divestiture of particular segments. In order to maximize value, it is suggested that Honeywell divests in both the Building Technologies, and the Safety and Productivity segments. Even though both segments have great potential for growth, they currently only contribute to 29% of overall profit, being the remainder 71% captured by the aerospace and performance materials and solutions segments alone. Diving deep into the reasons for divestiture, according to the DCF model valuation, the Building Technologies segment is the sole underperformer against the market. Additionally, as stated previously, the market is being characterized by aggressive M&A activity that further enhances the lack of attractivity for Honeywell to keep pursuing this segment. Regarding the Safety and Productivity segment, despite being a very appealing industry, it is not perfectly aligned with current trends and requires extra resources to deal with heavy regulation and compliance requirements, that ultimately increases pressure on investments. Letting go of these two segments would allow a redirection of capital, resources, and focus on better performing segments. The second part of the recommendation includes the strengthening of the remaining segments. Starting with Aerospace, an expansion in the Asia-pacific market would be wise, considering its commercial aviation growth due to population increases and the large public investment in defense aerospace. For that matter, Honeywell should leverage its recent acquisition of CAES, an already established company in that field in the USA, search for cross-capabilities, and leverage its expertise in the field. In the same segment, the conglomerate should take advantage of the trend involving eco-friendly and fuel-efficiency solutions and continue to be one of the biggest investors in R&D and innovation in sustainability fields, continuing to insist on product differentiation, ultimately gaining competitive edge and adaptability. Other trends like

space tourism and urban air mobility should be deprioritized – there are already strong players in the market like SpaceX, Virgin Galactic, among others – because of the significant investment and risk that it would take (Barten 2024). Finally, regarding the Performance Materials segment, the large, expected growth of the segment due to shifting customer preferences and technologic advancements towards sustainable and efficient materials should be captured by Honeywell. The focus on this trend presents great business opportunities for the company, considering the strong alignment of the segment towards current and future consumer needs. Honeywell is currently known as a lead-by-example company in the field – it has reduced its footprint by 90% since 2004 (Honeywell Inc. 2021)– and strengthening its position would perpetuate this reputation and escalate growth opportunities. That can be pursued by heavily investing in R&D and human talent that can have cross-capabilities. The choice to maintain only these segments comes from the fact that there are collaboration and efficiency gains between both.

Regarding investors in general, the most straightforward answer to a stock trading at a premium is often to go short – especially considering that most conglomerate discounts persist over time (Lang and Stulz 1994) and continue to destroy enterprise value. This premium may result of an investor mispricing, implying some potential for reversion, and long-term gains if the market corrects this mispricing (Lamont e Polk 2002). However, for less risk averse investors, the breakup potential of conglomerates presents a potential opportunity to profit using the opposite trading strategy – going long. Berkovitch and Israel (1996) argue that companies that present a conglomerate discount, which is the case of Honeywell, can unlock significant value through spin-offs and divestitures, as recommended previously. The decision to go long or short ultimately depends on the reason why the conglomerate discount exists. In this particular case, it is apparent that the diversity of segments creates organizational complexity and lack of synergies. However, there is a signaling effect if one considers the new

strategic transformation with emphasis on megatrends and recent divestitures that protect the core business – for example, Honeywell has planned to divest in Personal Protective Equipment business (Hoey 2024). This restructuring effort highlights a clear potential for value generation through spin-offs. In conclusion, it is advised for investors to closely monitor the company's activity. If the company sustains its focus on strategic realignment and operational efficiency, a long position is recommended. Inversely, if these efforts prove inconsistent, a short position may be more prudent.

VII. Limitations

Although it is undeniable that the previous research provides valuable insights, it is crucial to recognize its limitations and potential flaws. Generally speaking, all methods are based on a backward-looking approach, creating some dependence on historical data and past results, which may not fully predict or capture future performance, technological advancements, and evolving market dynamics. There is also an overemphasis on financial ratios (ROA, ROE, EV/EBITDA, etc.) to assess company performance, when there are other qualitative aspects (management quality, innovation, strategic initiatives, etc.) that should be taken into consideration. Factors like brand equity, customer loyalty, or technological leadership can also significantly influence valuation beyond what financial information can. However, it is very difficult to measure the numerical impact of these intangible assets. Furthermore, the analysis may be overly overfocused on short-term financial performance without fully considering long-term strategic goals (such as significant sustainability efforts or investments in innovation). This can lead to an underestimation of how strategic shifts can positively affect the conglomerate's value in the long term. Moreover, the study is heavily impacted by the outcome of future trends – which are rapidly evolving with disruptive technologies and shifting preferences that can highly impact future cash flows – introducing another layer of uncertainty.

That obstacle is heavily present in the DCF SoTP approach. In that valuation, there is heavy reliance on forecasts for future cash flows – any inaccuracy in estimations can lead to significantly different results. Take for example the estimation of equity beta, that due to the COVID-19 pandemic, reduced the number of years in observation by approximately 33% – this can potentially compromise the veracity of the values obtained. Concerning this same valuation method, there are some limitations regarding segment data not being publicly disclosed in sufficient detail, adding up another level of uncertainty due to additional assumptions and forecasting. For example, for each segment it was assumed that the segment's financial information (D/EV, equity beta, and effective tax rate) would be the industry average – this may not fully reflect the true segment dynamics, risk profiles, and characteristics. Moreover, corporate office data was not publicly available, if taken into consideration, it would decrease the value of Honeywell's intrinsic valuation, further increasing the discount found. Additionally, there is some degree of segment-specific complexity that may undermine the identification of synergies/inefficiencies, that could potentially affect the study's conclusions. Regarding the comparables valuations, either using the NAICS or the competitor approach, the main flaw of the methods is the low statistical significance that is implied with a small sample size. Therefore, the credibility around conclusions that can be taken is reduced. This is further confirmed by the difference in results obtained across methods, especially using NAICS codes. Furthermore, the fact that Honeywell is one of the largest global conglomerates leaves concerns on the validity of having truly comparable peers in each segment. The last method, Precedent Transactions, relies on data that encompasses the market conditions prevailing at the time of the deals. Although the large sample size may reduce the bias in this effect, there is still some ambiguity in results. Both valuations using multiples present a very important limitation: by valuing segments and not individual companies the choice of comparables may not fully reflect the segment dynamics. This is further enhanced by the fact

that in each of the codes used, either NAICS, or SIC, it is difficult to obtain companies that solely compete in that industry code, once again creating bias in the analysis. Furthermore, there are limitations in data collection considering that many of the companies that perform in one code are not publicly traded companies, and don't have financial data available, further restricting statistical significance.

A significant limitation of the study includes the assessment of Honeywell's value based solely on business segments, without a breakdown by business units. Villalonga (2004) argued that when data is analyzed at the business unit level, the conglomerate discount, on average, turned into a premium, therefore it would be of great interest to perform that exercise, to further consolidate the reliability of the conclusions in the present study. However, it is crucial to acknowledge that Honeywell's structure, comprising 72 subsidiaries, and between 20-30 business units, creates significant obstacles to this method. The valuation would be extensive, time-consuming, and severely limited in terms of data availability.

In summary, this study's conclusions are influenced by limitations such as reliance on industry averages, limited segment-specific data, and challenges in isolating external macroeconomic impacts. These constraints introduce some estimation into the valuation models and complicate comparisons with single-segment firms. However, the findings still provide valuable insights into Honeywell's conglomerate discount. Addressing these issues in future research through granular data access and longitudinal studies could enhance methodologies and deepen understanding of diversification's impact on valuation and resource allocation.

VIII. Conclusion

Honeywell showcases the dynamics of the conglomerate discount and offers significant insights regarding corporate diversification. This research quantifies the conglomerate discount at approximately 9% for Honeywell, a figure notably lower than the averages cited

in broader academic literature. This outcome underscores the complexity of conglomerate valuation, which is influenced by a balance between synergies and inefficiencies. The findings reaffirm that diversification introduces operational and managerial challenges that can weigh on a firm's valuation. In Honeywell's case, these challenges manifest in, among others, cases of resource misallocation, agency problems, and the inherent complexity of managing diverse business units. For example, the Building Technologies segment underperformed relative to its peers, weakening the overall valuation. On the contrary, segments like Aerospace and Performance Materials demonstrated the ability to leverage cross-segment synergies, such as shared R&D capabilities and supply chain efficiencies, to drive performance and partially offset the discount. The fact that Honeywell's shares trade at a premium reflects investor confidence in the firm's strategic positioning and growth potential. This points to the influence of factors beyond operational performance, including brand strength, stakeholder relationships, and alignment with sustainability trends.

Strategically, the research suggests that Honeywell could enhance shareholder value through selective divestitures and a sharper focus on high-performing segments. Divesting underperforming divisions like Building Technologies and Safety and Productivity Solutions could free resources to strengthen core segments better aligned with global megatrends, such as Aerospace and Performance Materials. Such strategic realignments may enable the firm to mitigate inefficiencies while amplifying its competitive advantages in higher growth markets. This study also highlights the role of investor perception and external market conditions in conglomerate valuations.

From an academic perspective, this research contributes to the ongoing debate about the conglomerate discount by supporting the view that conglomerates can both destroy and create value, depending on governance, market alignment, and strategic coherence. For practitioners, the insights from this study emphasize the need for rigorous portfolio management within

conglomerates. Managers must prioritize strategic coherence and leverage synergies while minimizing inefficiencies. Investors, on the other hand, should approach conglomerate valuations with an awareness of the biases and external factors that may influence market perceptions.

In conclusion, while Honeywell exemplifies the challenges of managing a diversified corporate structure, it also demonstrates the potential for value creation through strategic focus and operational excellence. By continuing to adapt to evolving market conditions and aligning its portfolio with global trends, Honeywell has the opportunity to transition from a discounted valuation to a premium. This study not only sheds light on the specific case of Honeywell but also offers broader implications for the evaluation and management of conglomerates in a competitive global economy.

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