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HONEYWELL FIELD LAB ON CONGLOMERATE DISCOUNT
VALUE UNDER CONGLOMERATE STRUCTURE

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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 9% 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.

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 management and investment strategies.

III. About Honeywell

Honeywell serves as a prominent case study in the evaluation of diversified corporate structures. With a rich history spanning over a century, Honeywell has consistently adapted to shifting industrial trends, demonstrating resilience and innovation. This chapter explores Honeywell's transformation from a heating company to a global leader in technology and automation, emphasizing its strategic positioning across diverse industries.

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, 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 cyclical nature 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 reinvests 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 & 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.

In fact, for a large and diversified company like Honeywell, the DCF model is suitable because it captures the value of its operational cash flows, taking into account operating efficiencies,

cost structures, growth opportunities, investment needs and expected market conditions over a multi-year forecast period, resulting in a detailed analysis of long-term cash flow generation potential. Additionally, the DCF model allowed the modelling of specific drivers of each segment independently (e.g., WACC) and their aggregation. If the firm's cash flows had been very cyclical, it would have become apparent in the valuation, and it would have been more accurately factored in the valuation as cash flows are estimated yearly. Finally, with the DCF model, it is possible to perform sensitivity analysis by adjusting key inputs like discount rate and terminal growth rate, which allows to account for uncertainties and assess the robustness of the valuation. For Honeywell, whose future cash flows depend on macroeconomic factors (e.g., aerospace defense budgets, R&D innovation in materials), this is a critical tool for risk-adjusted valuations.

The valuation relied on Honeywell's available historical financial information; in particular, the Balance Sheets, Income Statements and Statements of Cash Flows since 2015 were retrieved and analyzed.

Taking a deeper dive into the valuation of each segment, projections/estimations were made for 5 key aspects of the models: revenue and growth, operating margins (EBITDA and EBIT), CAPEX and NWC, terminal value and terminal growth, and discount rate (WACC). First, revenue projections were based on a blend of historical growth rates and industry outlooks. Historical data showed that revenue growth has remained relatively stable over time across all segments – excluding external shocks like the COVID-19 pandemic where growth became negative in all segments and spurred in 2022. Consequently, in the forecast period (2024F-2028F), revenue growth was projected at 4.9% for Aerospace, 2.1% for Building Technologies, 5.4% for Performance Materials and 0.1% for Safety and Productivity. Regarding inflation, Inflation forecasts until 2030 align with historical levels, excluding the atypical COVID-19 years. So, removing these outliers ensures a realistic baseline, reflecting

the assumption that inflation will normalize post-pandemic, supporting reliable revenue growth projections for Honeywell's segments. This is also consistent with industry expectations and Honeywell's strategic market positioning. In particular, and recalling the industry analysis of section III, Aerospace is expected to benefit from market recovery and continued demand growth; in the Building Technologies segment, revenue is expected to grow steadily with the expansion of smart buildings and energy-efficient systems; in Performance Materials, future growth is to be driven by advancements in materials technology and sustainability, but lower due to the impact of evolving macroeconomic conditions, shifts in policy and regulations across regions, changing customer preferences, and advances in technology; and the Safety and Productivity segment is likely to benefit from trends in automation and productivity optimization. Regarding operating margins, the projected EBITDA margins are based on historical proportions of each segment's contribution to the company's revenue. EBIT margins, which consider depreciation and amortization (D&A), were analyzed as a percentage of revenue – ideally, it would have been analyzed as a percentage of property, plant and equipment (PP&E) to understand which one would be a more stable estimator of future costs, but lack of segment data on PP&E limited the analysis. In the end, D&A expenses per segment was projected at 1.9% of revenue for Aerospace, 1.3% for Building Technologies, 4.2% for Performance Materials and 3.5% for Safety and Productivity; note that this is simply a revenue-weighted distribution of Honeywell's D&A expense per segment. To estimate the corporate tax expense of each segment, the average effective tax rate of each segment was set according to Aswath Damodaran (2024) estimations available on the NYU Stern School of Business website; once more, ideally, this data would be compared with the actual tax expense of attributed to each of the segments, but these figures are not available in Honeywell's reports. For the investment cash flows, CAPEX over revenue was found to be relatively stable over the past 10 years for all segments, such that the average value of this

period was used for the estimations. Net working capital has fluctuated more significantly, especially in 2018-2019, years in which, the firm disinvested in working capital such that, at its lowest, NWC was only 14.9% of revenue in 2018, versus 18.7% in 2022 and 2023, at its highest of the past 8 years. It would be interesting to understand which segments contributed more significantly to this trend, but segment data on investments in working capital was not available. That said, NWC as a percentage of sales was estimated to remain stable at the average value of the past 10 years across all segments to account for possible fluctuations. For cashflows after the estimation period, terminal growth rates were applied. Regarding this topic, the Performance Materials segment is projected to grow the fastest (3.44%), reflecting its alignment with global energy transition efforts and increasing demand for sustainable technologies – it is also Honeywell’s fastest growing segment; Aerospace follows closely (2.94%), driven by cyclical recovery and new opportunities in defense and urban air mobility; Building Technologies’ growth (2.69%) is supported by the ongoing trend of smart urbanization, but it lags behind due to slower adoption rates in emerging markets; finally, Safety and Productivity (2.44 %) has the lowest terminal growth rate, as its growth is more dependent on economic cycles and capital expenditure trends. When considering inflation (2.44%), the moderate growth estimates reflect real expansion across all segments except for Safety and Productivity. Performance Materials and Aerospace demonstrate robust real growth potential, while Building Technologies and Safety and Productivity offer more modest prospects in real terms. The cash flows of each segment were then discounted at the respective WACC, such that:

$$r_E = r_f + \beta \times (r_M - r_f)$$

$$WACC = \frac{D}{D + E} \times r_D \times (1 - t) + \frac{E}{D + E} \times r_E$$

The cost of debt (5.18%) was obtained by means of conversion of Honeywell’s credit rating –

Fitch Rating of A as of July 2024 – into a credit spread of 1.05% and adjusted to the firm’s probability of default of 0.20% (also in accordance with the credit rating) while considering 60% as the rate of loss given default for unsecured debt. The risk-free rate was considered to be 4.25% as it is the yield on a 10-year U.S. Treasury bond, and the market risk premium which was used was 5.50%, as it is common practice. The cost of debt of each segment was assumed to be the same as the one of the company as-is because Honeywell’s creditworthiness, profitability, and liquidity capabilities were considered to be more relevant in assessing the cost of debt of each segment than industry characteristics which provide a broader risk framework. The opposite though process resulted in using industry-average equity betas, such that the equity beta of each segment was the one of Aswath Damodaran (2024) – 1.08 for Aerospace, 1.29 for Building Technologies, 1.09 for Performance Materials and 1.11 for Safety and Productivity. The values of $\frac{D}{E}$ which were used were also those of Aswath Damodaran (2024) – 25.5% for Aerospace, 6.2% for Building Technologies, 26.8% for Performance Materials and Solutions, and 52.6% for Safety and Productivity Solutions. Note that lack of segment data about each segment’s capital structure is a significant limitation of the WACC calculation. Using industry averages, despite being indicative of the average financing costs for the firms that operate in each segment, may bias the valuation depending on Honeywell’s ability to outperform the markets.

Then, the CAPM equation was used to calculate the costs of equity and the WACC were obtained – 9.10% for Aerospace, 10.97% for Building Technologies, 9.06% for Performance Materials and 8.37% for Safety and Productivity. Finally, the cash flows were discounted. An adjustment was then made to the cash flows of 2024F, as the valuation date was set to be September of 2024; so, only 25% of the estimated cash flow for the full year was considered for valuation purposes because it was considered that no significant seasonality exists in any of the segments. The enterprise value – the sum of the values found for each segment – was

found to be \$151,712 M. **Table 1** displays a summary of the key inputs used in the valuation.

	Aerospace	Building Technologies	Performance Materials	Safety and Productivity
Segment FCF 2024F-2028F				
Revenue growth rate	4.86%	2.11%	5.37%	0.08%
Revenue over Honeywell revenue	36.80%	21.30%	27.30%	14.60%
EBITDA margin	24.39%	20.07%	21.31%	14.90%
D&A over revenue	1.87%	1.26%	4.18%	3.46%
Tax rate	7.28%	4.19%	10.40%	17.12%
CAPEX over revenue	2.21%	1.11%	3.35%	1.65%
Segment WACC				
Debt/EV	20.29%	5.84%	21.15%	34.46%
Equity beta	1.08	1.29	1.09	1.14

Table 1: Inputs used in the estimation of free cash flows in 2024-2028 and in the WACC computation of each of Honeywell's segments.

The sensitivity analysis performed to this valuation consisted of observing the enterprise value for variations of 10% and 20% to the terminal growth rates and the WACC of each segment. The results are presented in **Table 2**. Evidently, the EV is much more sensitive to changes in the terminal growth rate than in the discount rate. The most optimistic scenario (changes of -20% to both inputs) yields an EV of \$183,325 M and the most pessimistic scenario (changes of +20% to both inputs) yields an EV of \$114,396 M.

		Terminal growth rate				
		Base - 20%	Base - 10%	Base	Base + 10%	Base + 20%
WACC	Base - 20%	183,325	194,145	206,581	221,041	238,091
	Base - 10%	158,197	165,825	174,381	184,054	195,086
	Base	139,767	145,447	151,712	158,659	166,410
	Base + 10%	125,624	130,028	134,824	140,068	145,829
	Base + 20%	114,396	117,917	121,713	125,821	130,281

Table 2: Sensitivity analysis performed on Honeywell's DCF SoTP enterprise value, varying the WACC and the terminal growth rate of free cash flows. Currency values are in \$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 second method relied on a more selective choice based on both Honeywell's own evaluation of each market and identification of key competitors. The last method for comparable selection used relied on precedent transactions in each segment. Under the NAICS code-based method, the market capitalization was estimated at \$129 M, the competitor-based valuation yielded a higher market capitalization of \$152 M, and the precedent transaction-based approach resulted in a market capitalization of approximately \$120 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.

Honeywell market premium

The valuation of Honeywell as a conglomerate indicates that the firm may be overvalued in

the market – this premium is of 29%, meaning that the market believes that Honeywell’s true value is higher than its fundamental value. This premium is most likely explained by a convergence of financial performance, strategic positioning, and sector-specific growth opportunities. Regarding financial performance, the firm’s comparatively high ROA and ROE, for example, give investors confidence in the financial robustness of the company by showcasing Honeywell’s effective use of capital, asset management and profitability. Furthermore, consistent shareholder returns through dividends and buybacks enhance investor confidence. Secondly, Honeywell’s market valuation may acknowledge the competitive advantage derived from its strategic diversification across high-growth sectors like aerospace. The value of diversification is most likely not entirely captured in the DCF Model since there is no clear way to numerically input factors such as the lower exposure to industry-specific downturns. Lastly, projected growth in the segments in which Honeywell operates is high, bolstering investor confidence. The Aerospace segment is seeing rising defense budgets, a rebound in commercial aviation and increased focus on growing eco-friendly and fuel-efficient aircrafts, which Honeywell is well-positioned to capitalize on due to its investments in R&D and recent acquisitions. Strategic acquisitions, such as Civitanavi Systems for aerospace navigation and Carrier’s Global Access Solutions to enhance digital security offerings, underscore Honeywell’s commitment to innovation and market expansion. These moves not only bolster its revenue but also diversify its portfolio. In Building Technologies, Honeywell is benefiting from the accelerating adoption of smart buildings and energy-efficient infrastructure. Honeywell’s energy and sustainability solutions segment is experiencing substantial short-term growth potential, driven by innovation in high-performance chemicals, eco-friendly materials, and process technologies. Once more, the company’s alignment with industries such as healthcare, electronics, and automotive, where demand is increasing for sustainable and efficient solutions make it much more valuable investment wise. Finally,

Honeywell's competitive edge in industrial safety, automation, and productivity tools could be seen as valuable due to the rise in demand for automation and in safety regulations.

Quantification of the conglomerate discount

Despite trading at a premium, the analysis suggests that Honeywell does indeed suffer a conglomerate discount of approximately 9% 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.

Comparison with theoretical expectations

From a research point of view, Honeywell's valuation and observed conglomerate discount provide an interesting case for examining theoretical perspectives on diversification. It appears that while elements of inefficiency and external biases contribute to its discount, the company's strategic initiatives and growth potential indicate room for value realization. By examining these elements through the theoretical lenses of the 3 main perspectives surrounding the phenomenon, it becomes clear that the paradigm may be more complex than it shows. As mentioned, the 3 key currents of thought regarding the subjects are: 1) diversification diminishes firm value due to inefficiencies in resource allocation and managerial complexity attributed this to the misallocation of resources in internal capital markets, 2) the observed discount is not intrinsic to diversification but rather a byproduct of exogenous conditions such that what is observed may be merely a statistical illusion of a discount, and 3) well-governed conglomerates effectively allocate resources, leverage synergies, and maintain strategic coherence, resulting in superior performance relative to single-industry firms.

That said, several elements of Honeywell's operations align with the inefficiencies highlighted in the value destruction hypothesis. In particular, Honeywell's internal capital market faces

pressures from competing segments with disparate growth trajectories and capital needs. In fact, when Elliott Investment Management acquired a stake in Honeywell, the firm advocated for the separation of its Aerospace and Automation divisions, stating that that as independent entities, these divisions could benefit from streamlined strategies, focused leadership, improved capital allocation, enhanced operational performance, and stronger oversight. Moreover, in terms of managerial complexity, each segment demands unique expertise, complicating the standardization of operations. For example, the Aerospace segment's regulatory requirements differ significantly from the innovation-driven Building Technologies segment, reducing operational synergies. Furthermore, agency theory suggests that conglomerates often misallocate resources due to misaligned incentives, and evidence from Honeywell indicates that some divisions prioritize short-term performance metrics over long-term strategic goals, further complicating efficient capital investments. In fact, it is reported that Honeywell's business units face strong internal competition for investment allocation and must align with broader corporate initiatives, compromising the autonomy and effectiveness of tailored management actions. For instance, Elliott Investment Management suggested that the diversification could divert management attention to non-core areas, compromising growth of highly profitable core assets – the investment company pointed out that since Vimal Kapur took over the role of Honeywell's CEO there has been a shift of focus from the automation, aerospace, and energy transition megatrends – even though the firm announced publicly the intent to strategically realign portfolio. Having studied Honeywell's recent strategic moves, 3 recent acquisitions are worth mentioning: the first – CAES – enhanced the company's position in the aerospace defense, and provided opportunities for international growth because of its already established position; the second – Carrier's Global Access Solutions Business – strengthened Honeywell's portfolio around megatrends like cloud-based services and solutions; and the last is Civitanavi Systems, which accelerated penetration and expansion in

the aerospace, defense and industrial segments, especially in the European Union, due to its navigation solutions. Another relevant acquisition includes Compressor Controls Corporation, since it boosted the sustainability portfolio by introducing a technology that achieves removal of CO₂ from process plant emissions. This investment becomes even more relevant considering that Honeywell has committed to becoming carbon neutral by 2025 (Honeywell Inc. 2021) and that 88% of customers intend to purchase from sustainability concerned companies (Cosley, Hufnagle and Eills 2021). Even though Honeywell shows some degree of adaptability to this trend, while competitors seem to lag behind, the investment in R&D, especially in sustainable solutions, is crucial to keep relevance in the market. Additionally, Honeywell also divested in some companies, for example, Garrett – a technology company that filed for bankruptcy after encountering challenges with the COVID crisis – and Genesis, a Resideo spin-off. Both divestitures allowed a reallocation of capital to more productive and core assets and businesses, ultimately leading to a more focused and growth-oriented portfolio that generates more value for customers and shareholders. Everything considered, both recent acquisitions and divestitures seem to align with the future of the industry and key megatrends, suggesting a strategic intent to consolidate Honeywell's operations around its core competencies. While there may have been moments where the company lacked focus and diverted attention to non-core areas, the overall trajectory of Honeywell's strategic decisions indicates a deliberate shift towards consolidation rather than diversification. By prioritizing investments in high-growth and sustainability-oriented markets and divesting from underperforming or non-core segments, Honeywell appears to be realigning its portfolio to enhance focus, drive operational efficiency, and strengthen its competitive positioning.

So, despite the observed discount, Honeywell demonstrates attributes that align with the value creation hypothesis, suggesting that the discount may not fully capture its strategic strengths. Indeed, Honeywell's focus on R&D, sustainability, and technological innovation creates cross-

segment synergies that enhance competitive positioning. Recent acquisitions, such as Civitanavi Systems and Compressor Controls Corporation, exemplify Honeywell's focus on enhancing its position in the aerospace and sustainability markets. Civitanavi's expertise in navigation solutions has strengthened Honeywell's footprint in the European aerospace and defense markets, while Compressor Controls' technology aligns with Honeywell's commitment to achieving carbon neutrality by 2025. By contrast, divestitures like Garrett Motion and Genesis have allowed Honeywell to redirect capital toward core assets, fostering a more growth-oriented portfolio aligned with global megatrends. These moves streamline operations, reduce capital intensity, and enhance focus on high-growth areas, aligning with best practices identified by Villalonga (2004) and Hund et al. (2012). Finally, and inherent to its classification as a conglomerate, Honeywell's broad portfolio mitigates risk by offsetting cyclical downturns in individual segments. For instance, growth in building technologies and safety solutions can counterbalance Aerospace volatility, stabilizing overall cash flows.

Finally, and confronted with both characteristics of efficiency and inefficiency, one cannot forget that the observed discount may also reflect sampling biases rather than inherent flaws in diversification. Sampling biases, such as differences in the industries and geographies in which Honeywell operates compared to single-segment firms, could contribute to a distorted perception of the conglomerate discount. For instance, segments like Aerospace and Performance Materials may outperform their peers in specific markets, but these successes could be masked by underperforming segments or macroeconomic factors influencing the overall valuation. Additionally, external market conditions, such as fluctuations in defense spending, global supply chain disruptions, or shifting regulations in the energy transition space, may disproportionately impact a diversified firm like Honeywell, further complicating direct comparisons with single-segment peers.

In summary, when compared with theoretical expectations, Honeywell's valuation sheds light

on the inefficiencies and synergies to which Honeywell is exposed. Evidently, the discount is consistent with studies highlighting the challenges of managing diversified firms. Resource misallocation, regulatory complexities, and managerial inefficiencies negatively impact its operations. Fortunately, Honeywell's strategic focus on innovation, sustainability, and high-growth markets suggests that its current discount may not persist. As the company continues to streamline operations and leverage synergies, it could transition toward a premium valuation, consistent with value creation theories.

VII. Future research opportunities

The study of Honeywell's valuation and its observed conglomerate discount highlights several questions that merit further research within the fields of corporate finance, strategic management, and behavioral economics. These are intended to improve clarity regarding the motivations for diversification, the potential for an optimal level of diversification, and the discrepancy between Honeywell's intrinsic and market valuations. Together, these topics present an opportunity to deepen our understanding of conglomerates and their impact on value creation.

One of the most pressing questions is why investors choose to allocate capital to companies with diversified structures, such as conglomerates, rather than constructing their own portfolios that replicate a similar distribution of funds across industries. By building a portfolio that mirrors the exposure of a conglomerate like Honeywell, investors could theoretically eliminate the conglomerate discount at the source while maintaining control over their investments. This raises an important question: does investor behavior contribute to the persistence of the conglomerate structure? While numerous factors may explain this preference, such as lack the resources or expertise, convenience and simplicity, behavioral biases, constraints related to mandates or benchmarking practices, it would be worth also worth

considering whether, in a theoretical equilibrium, the conglomerate structure would cease to exist entirely – if rational investors collectively opted for self-constructed portfolios, the demand for conglomerates might diminish, rendering them obsolete.. To understand whether these investor preferences contribute to the existence of the conglomerate structure, future research could examine the motivations and constraints of investors who choose diversified firms over self-managed portfolios. Analyzing investor behavior through surveys, historical investment patterns, and the strategies of institutional players would provide valuable insights into whether the conglomerate model is sustained by structural market forces or behavioral tendencies. This investigation could also address whether these preferences reinforce inefficiencies or signal advantages unique to the conglomerate structure that are otherwise overlooked.

A related question is whether an optimal degree of diversification exists – one that enables conglomerates to outperform the value creation of single-segment firms. While excessive diversification often leads to inefficiencies, such as resource misallocation and increased managerial complexity, moderate diversification might yield benefits. These include risk mitigation through cash flow stability, the leveraging of synergies across complementary business units, and access to internal capital markets. However, the success of this approach likely depends on managerial discipline and the ability to maintain strategic focus while efficiently allocating resources. The key challenge lies in determining the conditions under which diversification becomes beneficial. For instance, robust corporate governance and rational decision-making may allow conglomerates to minimize inefficiencies and eliminate the discount altogether. Research in this area could explore the financial performance of firms with varying degrees of diversification to identify patterns and test whether there is a “sweet spot” for conglomerates that balances risk reduction with strategic coherence. Case studies of conglomerates that transitioned from discounted to premium valuations would offer valuable

insights into the factors enabling such transformations.

Another intriguing dimension is the apparent contradiction between Honeywell's intrinsic valuation and its premium market valuation. While Honeywell seems to suffer from a conglomerate discount based on traditional valuation metrics, its market value at the time of the valuation reflects a significant premium. This raises the question of whether the market is acting irrationally or pricing Honeywell according to factors not captured by intrinsic value calculations. Is it possible that the market values Honeywell's strengths in certain high-performing segments, such as Aerospace, while discounting underperforming areas like Building Technologies? Furthermore, intangibles such as brand equity, market positioning, and innovation capabilities may play a more significant role in driving Honeywell's market valuation than its fundamentals suggest. Understanding this discrepancy requires a closer examination of market expectations and sentiment. Event studies could analyze how Honeywell's stock responds to announcements related to its core segments or diversification strategies, while market sentiment analysis might uncover whether investor confidence in Honeywell is driven by optimism about future growth or alignment with industry trends. This investigation could also address whether Honeywell's premium is reflective of a temporary market imbalance or a mispricing that might correct over time.

In conclusion, this study identifies several areas for future exploration, including the role of investor psychology, diversification dynamics in emerging markets, and valuation trends in tech conglomerates. Longitudinal studies could assess the long-term impact of Honeywell's strategic and sustainability initiatives. Enhanced access to segment-specific data and advanced methodologies would address existing gaps, offering deeper insights. By building on this foundation, future research can advance the understanding of how diversification strategies influence valuation and guide managerial decisions in complex corporate structures.

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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	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024F	2025F	2026F	2027F	2028F
Revenue	15,237	14,751	14,779	15,493	14,054	11,544	11,026	11,827	13,624	14,286	14,980	15,708	16,471	17,271
<i>Growth rate</i>		-3.2%	0.2%	4.8%	-0.3%	-17.0%	-4.5%	7.3%	15.2%	4.9%	4.9%	4.9%	4.9%	4.9%
<i>Over Honeywell revenue</i>	39.5%	37.5%	36.5%	37.1%	38.3%	35.4%	32.1%	33.3%	37.2%					
EBITDA	3,218	2,991	3,288	3,503	3,607	2,904	3,051	3,228	3,741	3,484	3,653	3,831	4,017	4,212
<i>Margin</i>	21.1%	20.3%	22.2%	22.6%	22.6%	25.7%	25.2%	27.7%	27.3%	27.5%	24.4%	24.4%	24.4%	24.4%
D&A	267	275	279	112	234	241	278	285	267	268	281	294	309	324
<i>Over revenue</i>	1.8%	1.9%	1.9%	0.7%	1.7%	2.1%	2.5%	2.4%	2.0%	1.9%	1.9%	1.9%	1.9%	1.9%
EBIT	2,951	2,716	3,009	3,391	3,373	2,663	2,773	2,943	3,474	3,216	3,373	3,536	3,708	3,888
Taxes										234	246	257	270	283
<i>Tax rate</i>										7.3%	7.3%	7.3%	7.3%	7.3%
NOPLAT										2,982	3,127	3,279	3,438	3,605
CAPEX	314	331	380	308	272	248	284	246	310	316	331	347	364	381
<i>Over revenue</i>	2.1%	2.2%	2.6%	2.0%	1.9%	2.1%	2.6%	2.1%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%
Change in NWC	0	-159	-58	-206	60	-399	-211	459	332	-95	119	125	131	137
D&A	267	275	279	112	234	241	278	285	267	268	281	294	309	324
FCF										3,030	2,958	3,102	3,252	3,410
Discounted FCF										2,777	2,485	2,389	2,296	2,207

Table 3: DCF model developed to value Honeywell's Aerospace segment, in particular, to estimate free cash flows in 2024F-2028F.
All currency values are in \$M.

X. Appendix

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024F	2025F	2026F	2027F	2028F
Revenue	9,161	9,490	9,777	9,298	5,717	5,189	5,539	6,000	6,031	6,158	6,288	6,421	6,557	6,695
<i>Growth rate</i>		3.6%	3.0%	-4.9%	-38.5%	-9.2%	6.7%	8.3%	0.5%	2.1%	2.1%	2.1%	2.1%	2.1%
Over Honeywell revenue	23.7%	24.1%	24.1%	22.2%	15.6%	15.9%	16.1%	16.9%	16.5%					
EBITDA	1,512	1,621	1,650	1,608	1,165	1,099	1,238	1,439	1,505	1,236	1,262	1,289	1,316	1,343
<i>Margin</i>	16.5%	17.1%	16.9%	17.3%	20.4%	21.2%	22.4%	24.0%	25.0%	20.1%	20.1%	20.1%	20.1%	20.1%
D&A	101	107	118	112	63	55	67	92	107	77	79	81	82	84
<i>Over revenue</i>	1.1%	1.1%	1.2%	1.2%	1.1%	1.1%	1.2%	1.5%	1.8%	1.3%	1.3%	1.3%	1.3%	1.3%
EBIT	1,411	1,514	1,532	1,496	1,102	1,044	1,171	1,347	1,398	1,158	1,183	1,208	1,233	1,259
Taxes										49	50	51	52	53
<i>Tax rate</i>										4.2%	4.2%	4.2%	4.2%	4.2%
NOPLAT										1,110	1,133	1,157	1,182	1,207
CAPEX	103	92	88	125	43	66	62	74	79	69	70	72	73	75
<i>Over revenue</i>	1.1%	1.0%	0.9%	1.3%	0.8%	1.3%	1.1%	1.2%	1.3%	1.1%	1.1%	1.1%	1.1%	1.1%
Change in NWC	0	13	8	-278	-422	-78	-2	242	3	-71	22	23	23	24
D&A	101	107	118	112	63	55	67	92	107	77	79	81	82	84
FCF										1,189	1,120	1,144	1,168	1,192
Discounted FCF										1,072	909	837	770	708

Table 4: DCF model developed to value Honeywell's Building Technologies segment, in particular, to estimate free cash flows in 2024F-2028F. All currency values are in \$M.

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024F	2025F	2026F	2027F	2028F
Revenue	9,475	10,436	10,339	10,674	10,834	9,423	10,013	10,727	11,506	12,124	12,775	13,461	14,183	14,945
<i>Growth rate</i>		10.1%	-0.9%	3.2%	1.5%	-13.0%	6.3%	7.1%	7.3%	5.4%	5.4%	5.4%	5.4%	5.4%
Over Honeywell revenue	24.6%	26.6%	25.5%	25.5%	29.5%	28.9%	29.1%	30.2%	31.4%					
EBITDA	1,990	2,112	2,206	2,328	2,433	1,851	2,120	2,354	2,549	2,583	2,722	2,868	3,022	3,184
<i>Margin</i>	21.0%	20.2%	21.3%	21.8%	22.5%	19.6%	21.2%	21.9%	22.2%	21.3%	21.3%	21.3%	21.3%	21.3%
D&A	285	399	441	452	493	440	454	478	468	507	534	562	593	625
<i>Over revenue</i>	3.0%	3.8%	4.3%	4.2%	4.6%	4.7%	4.5%	4.5%	4.1%	4.2%	4.2%	4.2%	4.2%	4.2%
EBIT	1,705	1,713	1,765	1,876	1,940	1,411	1,666	1,876	2,081	2,077	2,188	2,305	2,429	2,560
Taxes										216	228	240	253	266
<i>Tax rate</i>										10.4%	10.4%	10.4%	10.4%	10.4%
NOPLAT										1,861	1,960	2,066	2,177	2,294
CAPEX	481	473	303	254	314	252	265	318	462	406	428	450	475	500
<i>Over revenue</i>	5.1%	4.5%	2.9%	2.4%	2.9%	2.7%	2.6%	3.0%	4.0%	3.3%	3.3%	3.3%	3.3%	3.3%
Change in NWC	0	121	-61	-169	235	-218	-10	414	142	-70	112	118	124	131
D&A	285	399	441	452	493	440	454	478	468	507	534	562	593	625
FCF										2,032	1,955	2,060	2,171	2,287
Discounted FCF										1,863	1,644	1,588	1,534	1,482

Table 5: DCF model developed to value Honeywell's Performance Materials segment, in particular, to estimate free cash flows in 2024F-2028F. All currency values are in \$M.

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 ^F	2025 ^F	2026 ^F	2027 ^F	2028 ^F
Revenue	4,708	4,625	5,639	6,337	6,104	6,481	7,814	6,907	5,489	5,493	5,498	5,502	5,507	5,511
<i>Growth rate</i>		-1.8%	21.9%	12.4%	-3.7%	6.2%	20.6%	-11.6%	-20.5%	0.1%	0.1%	0.1%	0.1%	0.1%
Over Honeywell revenue	12.2%	11.8%	13.9%	15.2%	16.6%	19.9%	22.7%	19.5%	15.0%					
EBITDA	746	680	852	1,032	790	907	1,029	1,080	901	819	819	820	820	821
<i>Margin</i>	15.8%	14.7%	15.1%	16.3%	12.9%	14.0%	13.2%	15.6%	16.4%	14.9%	14.9%	14.9%	14.9%	14.9%
D&A	177	188	219	216	222	223	237	191	171	190	190	190	190	190
<i>Over revenue</i>	3.8%	4.1%	3.9%	3.4%	3.6%	3.4%	3.0%	2.8%	3.1%	3.5%	3.5%	3.5%	3.5%	3.5%
EBIT	569	492	633	816	568	684	792	889	730	629	629	630	630	631
Taxes										108	108	108	108	108
<i>Tax rate</i>										17.1%	17.1%	17.1%	17.1%	17.1%
NOPLAT										521	521	522	522	523
CAPEX	47	55	79	78	82	288	190	50	62	91	91	91	91	91
<i>Over revenue</i>	1.0%	1.2%	1.4%	1.2%	1.3%	4.4%	2.4%	0.7%	1.1%	1.7%	1.7%	1.7%	1.7%	1.7%
Change in NWC	0	-37	153	-15	84	77	141	49	-268	-83	1	1	1	1
D&A	177	188	219	216	222	223	237	191	171	190	190	190	190	190
FCF										703	620	620	621	621
Discounted FCF										649	528	487	450	416

Table 6: DCF model developed to value Honeywell's Productivity and Safety segment, in particular, to estimate free cash flows in 2024F-2028F. All currency values are in \$M.