

A Work Project, presented as part of the requirements for the Award of a Master Degree in Finance
from the NOVA – School of Business and Economics.

Hilton's Path to Post-Pandemic Prosperity
The distinctive strategy of the Hotel Giant

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A Project carried out on the Master in Finance Program, under the supervision of:

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Abstract

This dissertation aims to assess the fair value of Hilton Corporation stock as of December 31st, 2024, and offers a recommendation based on the analysis conducted by December 20th, 2023. The hospitality sector has experienced considerable challenges due to the pandemic, necessitating businesses to undergo restructuring in response to economic downturns, travel restrictions, and a decline in both business and leisure travel. Proposing a target price of \$199.74 per share as of December 31st, 2024, reflecting an anticipated 13.04% total shareholder return over the next 12 months, this study recommends the acquisition of Hilton's stock.

Keywords: hospitality, pandemic, tourists, pipeline

Acknowledgments

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This report is part of the “Hilton’s Path to Post-Pandemic Prosperity” report (annexed), developed by Frederico Santos (42992) and Sofia Lima (52965) and should be read as an integral part of it.

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Introduction

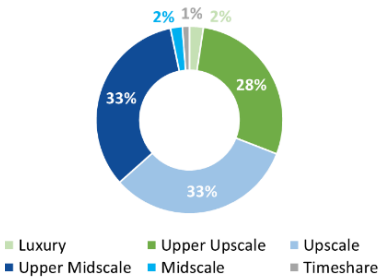
The primary aim of the enclosed report, titled "Hilton's Path to Post-Pandemic Prosperity," is to establish a well-founded valuation for Hilton Corporation. The report begins with a complete contextualization of the company and the hospitality industry, followed by a detailed examination of Hilton and its competitors. It elucidates the methodology and value drivers utilized to project the company's financials, culminating in a comprehensive intrinsic valuation of Hilton.

Drawing insights from company data, analysts' reports, economic news, hospitality studies by key market researchers, and macroeconomic reports, we project that Hilton Corporation is poised to uphold its market standing, notably setting itself apart through an outstanding development pipeline. Consequently, a Buy rating has been recommended, accompanied by a price target of \$199.74 for December, 31st 2024, reflecting a projected annualized shareholder return of 13.04%.

It's important to highlight that the attached report comprises two distinct sections: "The distinctive strategy of the Hotel Giant," the one covered in this report, which delves into past aspects such as the Company Overview, Revenues Forecasts, Relative Valuation, and Sensitivity and Scenarios Analysis; and the section titled "The value creation of Hilton Corporation," which focuses on Industry Overview and Competitors, future considerations, encompassing Value Drivers, Intrinsic Valuation and Final Recommendations.

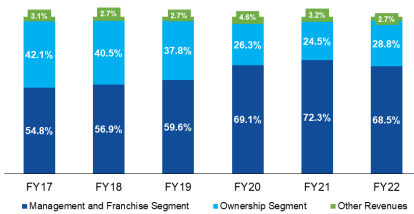
Company Overview

Graph 1: Hilton's hotel rooms, per chain scale in 2022



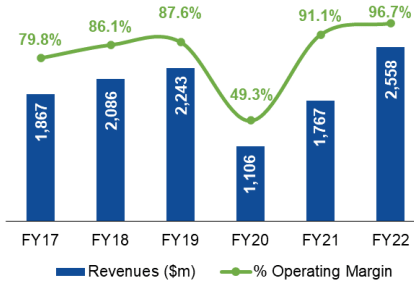
Source: Hilton Annual Reports

Graph 2: Hilton's Revenue Breakdown evolution



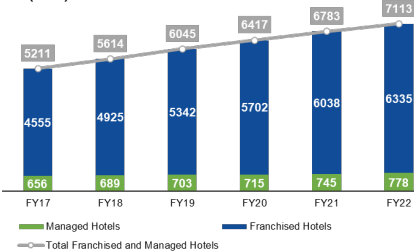
Source: Hilton Annual Reports

Graph 3: Hilton Management and Franchise Segment Historical Performance



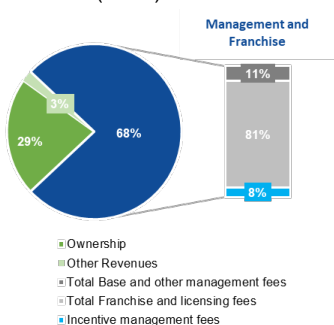
Source: Hilton Annual Reports

Graph 4: Hilton's Managed and Franchised Number of hotels evolution (\$M)



Source: Hilton Annual Reports

Graph 5: Hilton segments revenue breakdown (FY22)



Source: Hilton Annual Reports

Hilton Worldwide Holdings Inc. is a global hospitality corporation founded in 1919 by Conrad Hilton in Texas. It operates a variety of hotels, resorts, and other lodging facilities. The corporation spread across the country, and by 1946, Hilton Hotels Corporation had already been created and listed on the NYSE. However, a significant shift occurred in 2007 when Hilton Hotels Corp. underwent an all-cash acquisition by the Blackstone Group LP, amounting to \$26 billion, prompting its departure from the NYSE. Later, in 2013, Hilton made a triumphant return to the NYSE with the same ticker, generating approximately \$2.35 billion in its second IPO. Since then, it has grown to become one of the world's largest and most recognizable hotel brands. Additionally, a significant transformation took place in 2017 when Hilton spun-off its time-share business, establishing Hilton Grand Vacations and Park Hotels & Resorts. This strategic move led to the creation of three independent publicly traded entities, facilitating a reduction in debt, taxes, and expenditures. This restructuring played a pivotal role in Hilton's transition toward a complete asset-light model.

Nowadays, Hilton holds a powerful and diverse portfolio of 18 brands, usually in the upper mid-market segment (graph 1). Its solid property portfolio includes around 7 165 hotels with approximately 1 130 million rooms in 123 countries. The corporation owns and leases hotels and resorts, but its major focus is on brand management, franchising, and licensing.

Business Model

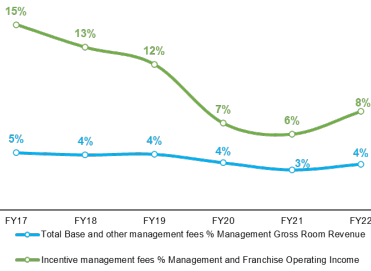
Hilton's services are provided through the following business segments, which are operated independently but collaboratively: Management and Franchising Segment and Ownership Segment. Moreover, the company discloses an additional revenue segment referred to as Other Revenues, which is reported separately.

Management and Franchising Segment

Hilton makes revenue in this category by collecting monthly fees determined by contracts with third-party hotel owners in exchange for Hilton's brand name and/or managerial competence. In exchange for fees and royalties, Hilton provides these hotels with its experience, branding, and operational support. The Management and Franchise (M&F) business is the most important revenue generator for Hilton and helps the corporation grow its global presence without owning physical facilities. It has contributed to more than 68% of total revenues in FY22 and it also represents the segment with higher operating margin (97% in FY22) (graph 3). This level of revenue contribution results from the fact that Hilton's management and franchise segment counts with an extensive portfolio of properties (7 113 in FY22) with more than 1 000 000 rooms, representing almost 99% of the total number of rooms in Hilton's portfolio (graph 4).

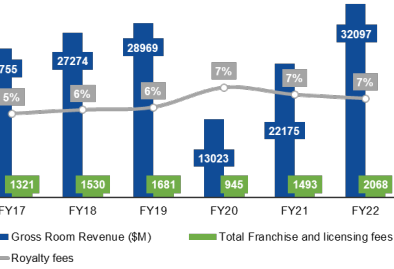
Additionally, it is possible to denote a positive increase of this segment's revenues over the years (9.7% CAGR between FY17 and FY19). In 2020, with the consequences of the pandemic, this segment had a turnover value of \$1 106M (51% decrease compared to 2019). However, in 2021 and 2022, it registered an incredible recovery achieving the pre-pandemic values, \$2 588M in FY22 (52% CAGR between FY20 and FY22). This evolution is the result of Hilton's intention to utilize its brand reputation and industry

Graph 6: Hilton's Management Fees Breakdown evolution



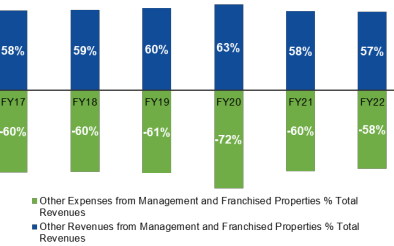
Source: Hilton Annual Reports

Graph 7: Hilton's Franchising Fees evolution (\$M)



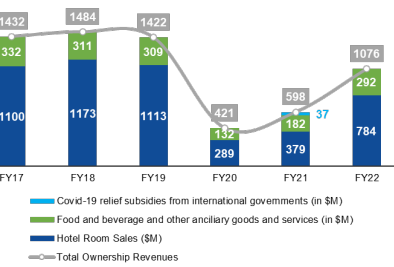
Source: Hilton Annual Reports

Graph 8: Hilton's Other Revenues and Other Expenses from Managed and Franchised Properties Evolution (\$M)



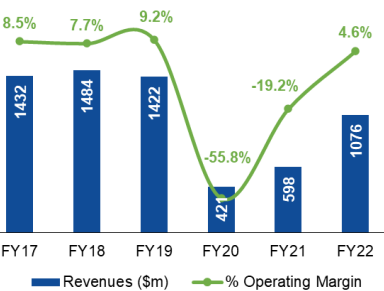
Source: Hilton Annual Reports

Graph 9: Hilton's Ownership Segment Revenues Breakdown



Source: Hilton Annual Reports

Graph 10: Hilton Ownership Segment Historical Performance



Source: Hilton Annual Reports

expertise to grow its business and broaden its customer base, without substantial capital investments. Notably, it was only with the spin-off in 2017 that the majority of the company's revenues shifted towards a fee-based model.

Additionally, Management and Franchise Segment can be examined independently.

Management

In 2022, this sub-segment represented around 19% of the Management and Franchise's segment revenue (graph 5), totalling \$490M, marking an impressive 79% growth from 2021. As of the end of 2022, Hilton successfully managed 778 hotels, boasting a total of 244 037 rooms on behalf of third-party owners. The revenues for Hilton's Hotel Management sub-segment primarily stem from two sources (graph 6). The majority of revenue (60% in FY22) comes from a base management fee, calculated as a percentage of the hotel's monthly gross revenue. Additionally, this segment also benefits from incentive fees (40% of the subsegment's revenue), which are calculated as a percentage of the hotel's operating profits, where applicable.

Franchise

The franchising sub-segment, primary driver of Hilton's revenue, is responsible for 81% of the total segment (graph 5), amounting to \$2 068M (graph 7), and reflecting a substantial increase of 39% in FY22. This segment encompasses a network of 6 335 hotels and resorts, collectively offering 865 781 rooms. As these properties are owned and managed by third-party entities, revenue from this segment is derived from various sources, including monthly royalty fees, application and initiation fees assessed when new hotels join the Hilton system, fees associated with contract extensions, and charges related to changes in hotel ownership.

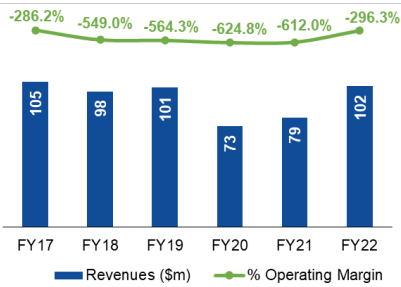
Other Revenues from Managed and Franchised Properties

Hilton also acknowledges additional revenues derived from its franchised and managed properties, accounting for 57% of total revenues (including these other revenues from managed and franchised properties) in FY22 (graph 8). These revenues represent reimbursements made by property owners to cover the extra expenses incurred by Hilton during the management or franchising of these properties. The associated expenses are recognized as they occur and are categorized as other expenses related to managed and franchised properties. Although this cannot be verified historically, the revenues generated from reimbursements are expected to match with these expenses. A potential reasoning for this mismatch may be due to misalignments between the period where the expenses occur and the period where they are reimbursed. Bearing this in mind, it is important to note that, during our analysis, we do not consider these revenues as part of the total revenues of the firm, as these are strictly related to the other expenses mentioned above rather than coming from the services the company provides.

Ownership Segment

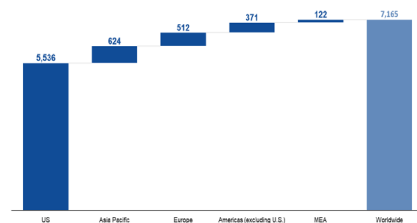
In this segment, Hilton directly owns and manages a small number of hotels and resorts, which are frequently in prominent or important areas. At these owned properties, Hilton makes money on room reservations as well as other visitor services, such as food & beverage, other associated goods, and services to both individual visitors traveling for business or pleasure and to groups traveling to events (such as

Graph 11: Hilton Other Revenues Historical Performance



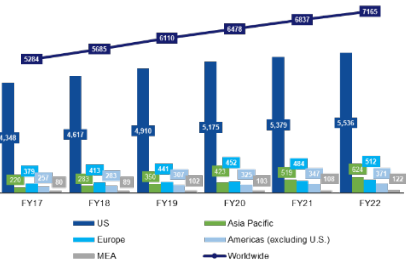
Source: Hilton Annual Reports

Graph 12: Hilton's hotel properties, per region in 2022



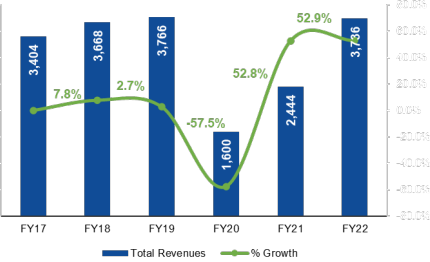
Source: Hilton Annual Reports

Graph 13: Hilton's hotel rooms evolution, per region



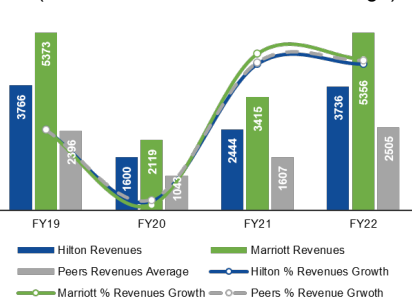
Source: Hilton Annual Reports

Graph 14: Hilton's Revenues Evolution (\$M)



Source: Hilton Annual Reports

Graph 15: Revenues Evolution \$M (Hilton vs. Marriott vs. Peers Average)



Source: Companies Annual Reports

business conferences) (graph 9). The Ownership sector gives the business a consistent stream of revenue and enables it to promote the quality of its brands. At the end of FY22, the Ownership division included 52 hotels with 17 612 rooms that Hilton or its affiliates owned or leased and generated \$1 076M (+80% in 2022) in revenue (graph 10).

The number of properties in this segment has been declining over time (-7% CAGR FY17–FY22), with a notable drop in 2017 (-48%) brought on by the spin-off that highlighted Hilton's strategy to transition to a fully asset-light business model, though the timing varies by region. For instance, Hilton has fully embraced this strategy in the US having no owned properties since FY19, but, in contrast, 11.5% of hotel rooms are owned and leased in Europe, where 67% of the segment's assets are located.

▪ Other Revenues

Other revenues encompass income derived from ancillary support services for hotel operations across owned, leased, managed, and franchised properties, accounting for less than 3% of total revenues (graphs 5 and 11). These services include purchasing operations and other sources of operating income.

▪ Geographic Operations

Despite having its headquarters in Virginia, United States, Hilton is an international firm that divides the locations of its properties into five different regions: the US, the Americas without the US, Europe, the Middle East and Africa (MEA), and Asia Pacific (APAC). Despite having expanded its operations internationally, the company still relies heavily on its US business, where almost 80% of its system-wide hotel properties are located and where 80% of its revenue is generated (graph 12). With a CAGR of 6% over the past five years, Hilton has expanded the number of hotels it operates in all regions, from 5 284 in FY17 to 7 165 in FY22 (graph 13). The growth is more outstanding in less saturated places like the Middle East and Africa and Asia Pacific, where its CAGR for properties is 8.8% and 23.2%, respectively. Together, these factors may emphasize Hilton's strong potential for future expansion.

Performance Analysis

▪ Revenues growth

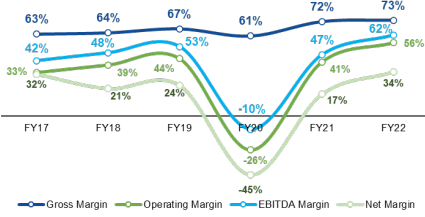
Hilton's revenues were growing at a 5.2% CAGR during the 3-year span prior to the pandemic crisis that deeply affected the travel and hospitality industry. In 2020, the company's revenues dropped by roughly 58%, which shows the struggles brought upon by a health crisis in an industry that relies so heavily on travel. These numbers came back up to regular numbers in 2022 (\$3 736M in FY22) and are expected to grow at a similar rate to the pre-pandemic years (graph 14).

While Hilton's revenues growth over the past 4 years is aligned with its peers, the firm still finds itself behind Marriott in metrics such as market share and revenue. On the other hand, compared to the rest of the competitors, Hilton shows stronger performance in terms of revenue. Moreover, one can also realise that both Hilton and its peers copped similarly with the pandemic crisis as the revenues lost during FY20 and FY21 were mostly recovered in FY22 (graph 15).

▪ Profitability Analysis

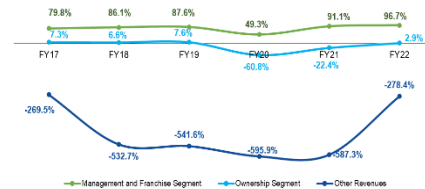
Examining graph 16, it becomes apparent that Hilton demonstrates a strong ability to generate revenue with an impressive growing gross margin, around 67% in FY19

Graph 16: Hilton's Profitability Ratios Evolution



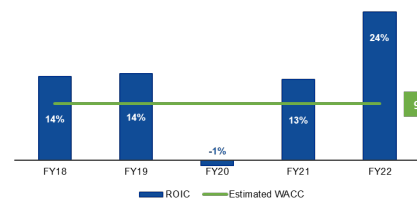
Source: Hilton Annual Reports

Graph 17: Hilton's Operating Margins Evolution by segment



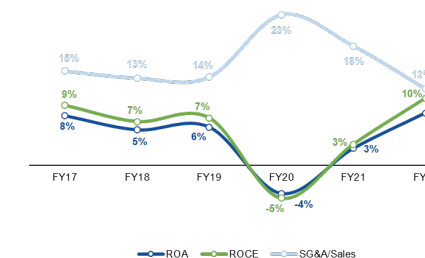
Source: Hilton Annual Reports

Graph 18: Hilton's ROIC evolution vs. Estimated WACC



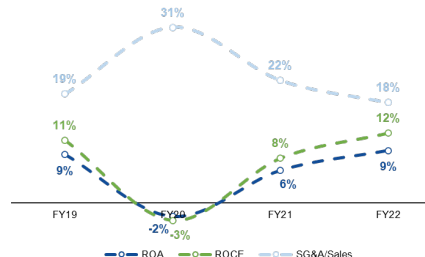
Source: Hilton Annual Reports and Own Estimates

Graph 19: Hilton's Profitability from Investors Ratios Evolution



Source: Hilton Annual Reports

Graph 20: Hilton's Peers Profitability from Investors Ratios Evolution



Source: Companies Annual Reports

which grows to nearly 73% in FY21 and FY22. Hence, its overall profitability is strongly impacted by substantial operational costs, mainly regarding the ownership segment, including marketing, payroll, and administrative expenses, resulting in a 62% EBITDA margin in 2022.

Further analysis by business segments reveals that the Management and Franchise segment stands out with an impressive 97% operational margin in FY22, signifying its substantial profitability. In contrast, the Ownership segment has significantly lower operational margins and even lost money in FY20 and FY21 (with operational margins of -61% and -22%, respectively), which can be easily justified by the high fixed costs implied by the segment. In addition, the Other Revenues segment account for very negative operational margins (-278% in FY22), since it represents an additional income that the company generate only from support services to the two other main business segments (graph 17). Therefore, the costs for these services can be substantial and end up outweighing the revenue generated. It's important to note that the costs from the other revenues segment do represent expenses that each of the main segment would incur on if run separately. However, Hilton itself does not discriminate these costs and does not take them into account when comparing the performance and profitability of the main segments, and thus, we followed the same rational.

- Return on Invested Capital (ROIC)

Over its historical performance, Hilton consistently generated value by surpassing its estimated 9.23% cost of capital, except in FY20. In FY22, the ROIC soared to 24%, indicating a value-creating scenario of almost 15%. The most notable deviation occurred in 2020, with ROIC plunge to -1%, which can be attributed to negative total comprehensive income. This anomaly was recognized as a consequence of the unique circumstances and external factors caused by the pandemic. The subsequent rebound in 2021, where the return already exceeded the average cost of capital, showcased a remarkable recovery. Moreover, the substantial growth observed between FY21 (13%, similar to pre-pandemic level) and FY22 (24%) highlights Hilton's strategic trajectory towards achieving attractive returns on its operational investments in the future, through betting on its highest margins segment, the management and franchising, which coincidentally has the lesser needs for invested capital funds (graph 18).

- Profitability from Investments (ROA, ROCE, SG&A/Sales)

Before the onset of the 2020 pandemic, Hilton exhibited a robust financial performance, underscored by favorable returns on investments. Both Return on Assets (ROA) and Return on Capital Employed (ROCE), although lower than the SG&A/Sales ratio, still reflect reasonably efficient asset and capital utilization, stringent cost controls, and robust profitability. However, as the pandemic unfolded, the SG&A/Sales ratio surged, signifying unprecedented challenges. This led to negative values for both ROA (-4%) and ROCE (-5%) in FY20, with the elevated SG&A/Sales ratio (23%) highlighting the harsh economic realities and increased expenses relative to shrinking sales during this tumultuous period.

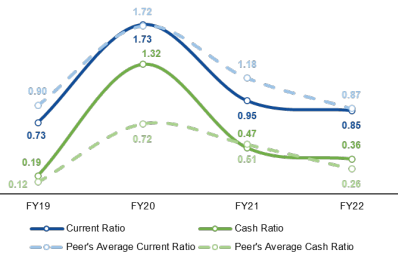
Moving into FY21, signs of recovery emerged. While SG&A/Sales remained elevated (18%), Hilton managed to pivot. Positive returns for both ROA and ROCE (both 3%) signaled a journey back to stability. Although the persistent SG&A/Sales ratio suggested ongoing cost pressures, the positive returns underscored Hilton's resilience and strategic adjustments. By FY22, a tendency of convergency is denoted between the three ratios in all industry, as ROCE and ROA rose higher values than those from

before the pandemic while bringing SG&A/Sales decreased to lower ones. This slightly better rebound suggests improvements in efficiency and profitability the market was not able to fully follow (graphs 19 and 20).

Capital Structure and Liquidity Analysis

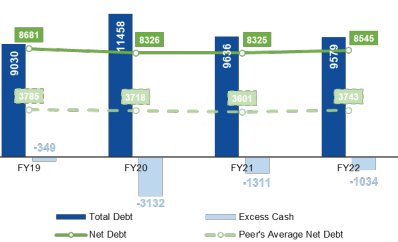
Hilton has proactively fortified its financial position in response to the global impact of COVID-19, strategically enhancing liquidity and cash reserves over recent years. Notably, the company experienced a positive shift in its current ratio from FY19 to FY20 due to a deliberate decision to suspend share repurchases and dividend payments throughout 2020 and 2021. Despite these efforts, Hilton faces ongoing challenges in meeting short-term obligations, and, in comparison to the period before 2020, 2020 itself marked a significant reversal in its liquidity ratios, signaling improvement relative to industry peers, followed by a substantial decline in 2021. By 2022, these ratios reverted to approximately pre-pandemic levels. Notably, Hilton consistently outperforms industry peers in its cash ratio, maintaining higher reserves, while its current ratio lags behind (graph 21). This unique dynamic underscores Hilton's strength in maintaining a robust cash position relative to peers, even though its current ratio is slightly lower. However, the interpretation of these metrics is complex, given that a significant portion of Hilton's current liabilities is tied to future commitments related to the Loyalty Program, and a substantial share of these obligations doesn't immediately result in cash outflows.

Graph 21: Hilton's Profitability from Investors Ratios Evolution



Source: Companies Annual Reports

Graph 22: Hilton's Net Debt Composition and Evolution (\$M)



Source: Hilton Annual Reports

The pandemic has amplified Hilton's reliance on debt financing which particularly in the current uncertain industry landscape, poses substantial financial risks for the company. Actually, Hilton experienced a credit rating downgrade from BB+ to BB by S&P in 2020, reflecting the negative outlook arising from the pandemic crisis. Despite the rise in Total Debt that year, Net Debt actually decreased due to a significant liquidity injection into the company. By 2020, the Total Debt reached \$11.5 billion, primarily driven by the issuance of \$4.4 billion in bonds. Additionally, recognizing the potential drawbacks of excessive debt dependence, Hilton has consistently tried to reduce its Net Debt since 2019. In comparison to its peers, Hilton's Net Debt level was substantially higher. Whether through accumulating excess cash from earlier liquidity injections or reducing overall debt, the hotel chain appears to be gradually transitioning towards a more conservative capital structure, aligning itself closer to the industry average (graph 22).

Ownership Structure and Investor's Return

Hilton, which trades on the New York Stock Exchange (NYSE) under the symbol "HLT," has a market capitalization of \$40,467 million as of September 12th, 2023, represented by 261,513,566 shares. There is only one class of voting stock, and each share of common stock that a shareholder owns entitles them to one vote. In addition, with a 98.06% free float, strategic entities control only 1.94% of the company's shares, with The Vanguard Group holding the greatest share position with 9.93% of the total. In addition, 97.23% of shares available for trading in the open market are held by institutional holders, 1.87% by individual entities and 0.9% by other investors (graph 23). With 3,285,839 shares, Christopher J. Nass Etta, president and chief executive officer, has 1.28% of the company's share capital.

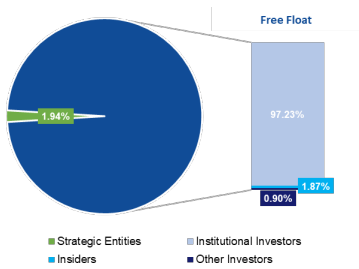
In an effort to increase shareholder value, Hilton started a stock repurchase program in 2017 which was continued through 2019. Moreover, the company paid out a quarterly cash dividend of \$0.15 per share on a regular basis from 2017 until 2020,

Table 1: Board of Directors

Christopher J. Nassetta	
Jonathan D. Gray	CEO and Director of Hilton Corporation
Jonathan D. Gray	Chairman of the Board of Directors
Charlene T. Begley	Director and Audit Committee Chair
Chris Carr	Director
Melanie L. Healey	Director
Raymond E. Mabus	Director
Judith A. McHale	Director and Compensation Committee Chair
Elizabeth A. Smith	Director and Nominating & ESG Chair
Douglas M. Steenland	Director
Kevin J. Jacobs	CFO and President, Global Development
Michael W. Duffy	Senior Vice President, Chief Accounting and Risk Officer

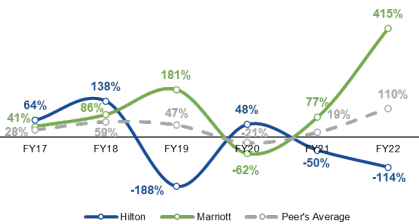
Source: Bloomberg

Graph 23: Ownership Structure



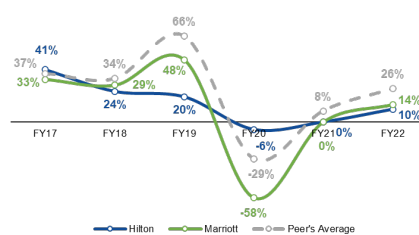
Source: Bloomberg

Graph 24: REO Evolution (Hilton vs. Marriott vs. Peer's Average)



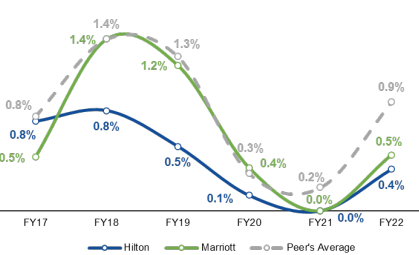
Source: Companies Annual Reports

Graph 25: Payout Ratio Evolution (Hilton vs. Marriott vs. Peer's Average)



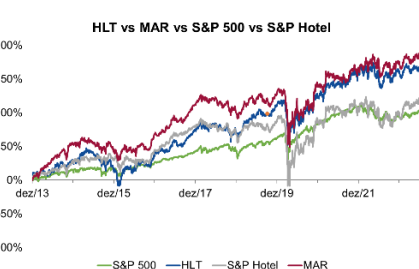
Source: Bloomberg

Graph 26: Dividend Yield Evolution (Hilton vs. Marriott vs. Peer's Average)



Source: Bloomberg

Graph 27: Hilton Stock Performance (vs Marriott, S&P 500 and S&P Hotel)



Source: Bloomberg

showing an increase from the \$0.07 quarterly that used to be paid out before. Both these changes, dividend increase and share buyback program, come after the company decided to pursue an asset light business model where the focus would be to reduce property owning in attempts to make the business both more profitable and less risky, due to lesser fixed costs. This gave the company freedom to increase the value given back to its shareholders through.

However, in order to protect the company's cash reserves, the dividend payments and the share repurchase program—of which there was still \$2.2 billion available—were temporarily suspended in March 2020 in response to the financial difficulties brought on by the Covid-19 pandemic. Furthermore, Hilton outperformed its peers in Return on Equity (ROE) due to the stronger strategic buyback initiative started in 2017, resulting in a significant decrease in the equity book value, even reaching negative levels since 2019 (-188% ROE), only excluding 2020 due to the precautionary actions taken, evolutions that can be observed in graph 24. As mentioned before, similar strategies were being employed by other companies, such as InterContinental and Marriott, which potentially distorted the accuracy of ROE analysis. Moreover, the decrease on the Equity book value is mainly a consequence of both the share buyback and dividend pay-out, as the company has been giving more money to shareholders than the amounts it has been profiting from its operations.

Later, in March 2022, the board of directors decided to start up share repurchases again, demonstrating their commitment to keeping the business solvent. The \$0.15 quarterly cash dividend, which was supposed to be distributed in the second quarter of 2022, was also approved by the board. Finally, in November 2023, the Board of Directors has approved the repurchase of an extra \$3.0 billion worth of common stock within the framework of the company's existing stock repurchase program. This increases the total amount authorized for future repurchases to approximately \$4.2 billion, amount that has been constantly changing and thus should not be limiting regarding repurchase projections. Hence, this move reflects the company's intention to continue its regular practice of distributing quarterly cash dividends in the future.

Further, Hilton's main competitors have also been increasing their dividends while repurchasing some of its stock. While the majority of the main competitors, such as Marriott and IHG, have had slightly larger dividend payouts and dividends yields, and have also been increasing these values, Hilton has been the leader, alongside Marriott in share repurchases (graphs 25 and 26). This way, one can expect Hilton to bring dividend yield values up, closer to the industry ones.

Stock Performance

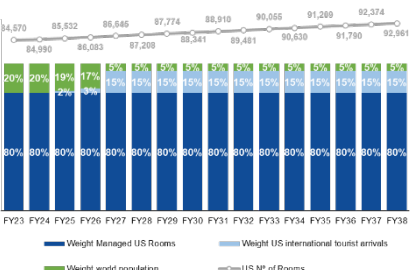
From 2013 through 2022, Hilton's stock performance was influenced by two significant occurrences. First, in late 2015, the acquisition of Starwood by Marriott, which was the biggest acquisition in hotel industry history, caused a decline in Hilton's returns in 2016. This happened since Marriott became the biggest operator within the industry, with the largest properties' portfolio. Second, due to COVID-19, Hilton returns hit their lowest point by the middle of March in 2020, due to the restrictions that kept people home, prohibiting them of travelling, as well as caused by the significantly drop in household spending, mainly in non-essential expenses such as travels. Furthermore, it was also denoted a reduction in business travels caused by the wider use of online meetings. Hence, since this downturn, Hilton stock increased 163% from March 2020 to the

Table 2: Management's Segment Example of Revenue Forecast Model

(in million dollars, as of 31st Dec)	FY17	FY18	FY19	2037F	2038F
Management and Franchise Segment	1,887	2,088	2,243	7,077	7,974
Management Hotels	1,887	2,088	2,243	7,077	7,974
Total US Managed Hotels Gross Revenue	3,593	3,692	3,510	5,982	6,144
% managed vs room weight	43.6%	42.1%	38.9%		
RevPAR	110	111	110	177	181
% growth	1.0%	1.0%	0.1%	57.0%	2.4%
Occupancy	76.3%	76.3%	76.2%	85.5%	85.5%
% growth	0.0%	0.1%	-0.1%	9.0%	0.0%
World Population	1.1%	1.0%	1.0%	0.8%	0.8%
Weight world population	40.0%	45.0%	45.0%	60.0%	60.0%
US Domestic Spending	40.0%	40.0%	40.0%	1.8%	1.8%
Weight US Domestic Spending	40.0%	40.0%	40.0%	37.0%	37.0%
All Other Regions International Spending	20.0%	15.0%	15.0%	3.0%	3.0%
Weight All Other Regions International Spending	20.0%	15.0%	15.0%	1.3%	1.3%
ADR	144	146	144	207	212
% growth	1.6%	1.5%	-1.4%	46.6%	2.4%
US Market Size	4.4%	2.5%	2.5%	2.0%	2.0%
Weight US Market Size	35.0%	30.0%	30.0%	40.0%	40.0%
US GDP Real Growth	2.2%	3.0%	2.3%	1.8%	1.8%
Weight US GDP	60.0%	60.0%	60.0%	30.0%	30.0%
US Household disposable income	2.0%	2.7%	2.3%	2.4%	2.4%
Weight US Household disposable income	5.0%	10.0%	10.0%	30.0%	30.0%
% weighted growth	3.7%	2.3%	2.1%	2.4%	2.4%
N° of Rooms	90,812	90,749	88,398	92,374	92,861
% growth	(0.1%)	(0.1%)	(2.6%)	0.6%	0.6%
Projected managed Hilton n° room growth	(0.1%)	(2.6%)	0.4%	0.4%	0.4%
Weight Managed US Rooms	70.0%	70.0%	70.0%	80.0%	80.0%
Number of international tourist arrivals in US	3.3%	(0.4%)	2.0%	2.0%	2.0%
Weight US international tourist arrivals	25.0%	30.0%	30.0%	15.0%	15.0%
World Population	1.1%	1.0%	1.0%	0.8%	0.8%
Weight world population	5.0%	10.0%	10.0%	5.0%	5.0%
% weighted growth	0.8%	1.1%	1.1%	0.6%	0.6%
Total All Other Managed Hotels Gross Revenue	4,646	5,032	5,299	23,581	25,318
% All Other regions revenue weight	59%	59%	60%	188	9.5%
RevPAR	103	108	106	180	192
% growth	4.7%	1.9%	-1.9%	73.8%	6.7%
Occupancy	71.7%	74.0%	73.7%	85.6%	85.6%
% growth	3.1%	3.2%	-0.4%	10.4%	0.0%
World Population	1.1%	1.0%	1.0%	0.8%	0.8%
Weight world population	40.0%	45.0%	45.0%	60.0%	60.0%
All Other Regions Domestic Spending	40.0%	40.0%	40.0%	3.9%	3.9%
Weight All Other Regions Domestic Spending	40.0%	40.0%	40.0%	15.0%	15.0%
US International Spending	20.0%	15.0%	15.0%	1.8%	1.8%
Weight US International Spending	20.0%	15.0%	15.0%	5.0%	5.0%
% weighted growth	5.2%	2.9%	2.3%	1.3%	1.3%
ADR	144	146	144	220	228
% growth	1.6%	1.5%	-1.4%	54.9%	3.6%
Market Size All Other regions	9.3%	9.3%	9.3%	3.3%	3.3%
Weight All Other regions Market Size	35.0%	30.0%	30.0%	10.0%	10.0%
World GDP Real Growth	3.9%	3.6%	2.9%	3.5%	3.5%
Weight World GDP	60.0%	60.0%	60.0%	20.0%	20.0%
OECD Household disposable income	1.6%	2.0%	2.1%	1.8%	1.8%
Weight OECD Household disposable income	5.0%	10.0%	10.0%	70.0%	70.0%
% weighted growth	5.2%	2.9%	2.3%	1.3%	1.3%
N° of Rooms	117,423	124,688	133,217	343,622	360,694
% growth	6.4%	6.2%	6.8%	57.0%	5.0%
Projected managed Hilton n° room growth	6.2%	6.8%	5.6%	5.6%	5.6%
Weight Managed All Other regions Rooms	70.0%	60.0%	60.0%	80.0%	80.0%
Number of international tourist arrivals in All Other regions	5.7%	3.9%	3.1%	3.1%	3.1%
Weight All Other regions international tourist arrivals	25.0%	30.0%	30.0%	15.0%	15.0%
World Population	1.1%	1.0%	1.0%	0.8%	0.8%
Weight world population	5.0%	10.0%	10.0%	5.0%	5.0%
% weighted growth	5.8%	5.4%	5.0%	5.0%	5.0%
Total Managed Hotels Gross Revenue	8,239	8,695	8,799	29,663	31,462
% growth	4.6%	4.4%	4.5%	4.0%	4.0%
Base and other management fees rate	4.6%	4.4%	4.5%	4.0%	4.0%
% growth	(1.7%)	(1.1%)	0.0%	0.0%	0.0%
Base and other management fees	379	385	394	1,194	1,271
Amortization of contract acquisition costs	(12)	(20)	(19)	(17)	(17)
Intangibles elimination	(43)	(44)	(43)	(134)	(143)
Total Base and other management fees	111,423	111,423	111,423	111,202	111,202
Total Base and other management fees	324	321	332	1,043	1,111
Incentive management fees	222	235	230	724	771

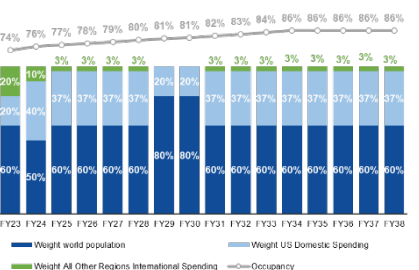
Source: Own Estimates

Graph 71: US N° of Rooms of Management Segment – Revenue Drivers



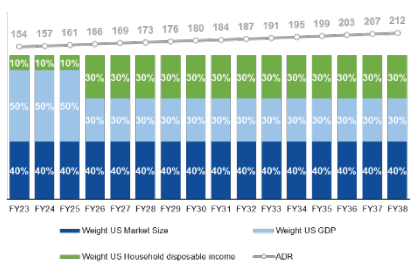
Source: Own Estimates

Graph 72: US Occupancy Rate of Management Segment – Revenue



Source: Own Estimates

Graph 73: US ADR (\$) of Management Segment – Revenue Drivers



Source: Own Estimates

present, achieving the highest price per share of \$179.78 on December 14th, 2023.

If Hilton and Marriott are compared, although Marriott's stocks have had greater returns, Hilton has still outperformed the market over the past 10 years, including during the pandemic, even with the severe restrictions in terms of traveling (graph 27).

Valuation

Revenues Forecast

We started our forecast model by estimating the turnover we expect Hilton to reach during the next 15-year period. For that matter, we analysed the revenue drivers mentioned previously, number of rooms, RevPar, ADR and Occupancy. For each driver we then selected 3 main drivers, to which we allocated different weights, reaching a final yearly growth. The RevPar is calculated by multiplying the ADR and the Occupancy, and then by multiplying it by the number of rooms we reach a gross revenue. This exercise was conducted for each main segment of the firm in both the US and All Other Regions, whereas the Other Revenues segment was computed using the historical percentage of the main source of income from each other segment.

Starting with the number of rooms, the first thing to do was to analyse Hilton's intentions for the future. For that purpose, we estimated the room additions by segment throughout the forecasted period and, in each segment, by region, i.e. US vs All Other. Later, we used 2 other drivers for the final estimation of the room number growth which were the World Population growth along with the growth of the total tourist arrivals in the US and All Other. Both these metrics growths hint to the potential need for a growing hotel room capacity.

Regarding the ADR, our projections were made based on market size, GDP and Household disposable income. While market size growth would increase demand and thus increase competition and raise prices, GDP and household income growth would lead to a higher willingness to spend from the part of the consumers.

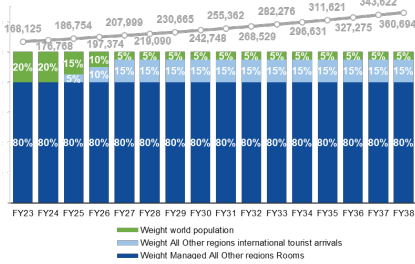
In what concerns occupancy, we took into consideration population growth along with the region's domestic spending and the outside's international spending. Thus, assuming that with larger spendings and larger population, Hilton would be able to capture more clients and increase its occupancy ratio. We further assumed that no segment should exceed c.85% in occupancy as we feel it would be unrealistic to assume constant growth as hotels need a margin for room cleaning and other logistics which prevent them from achieving higher levels of occupancy. As pre Covid levels of occupancy were c.76%, this assumption suggests an increase in efficiency of logistics.

Further, the multiplication of RevPAR and total rooms gives the segment's gross revenue by geography which summed gives the total segment's gross revenue. The applicable costs and fees, based on historical data are then subtracted to reach each segment's total revenues for Hilton (Table 2 illustrates this process).

Management Segment

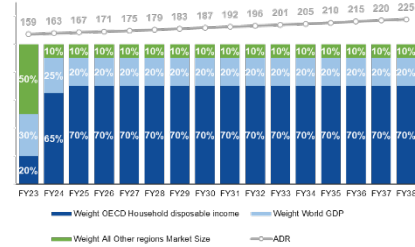
In the Management segment, the number of US rooms had a decreasing trend until 2021, which brought our expectation for Hilton's projected room number to a steady addition of 330 rooms per year throughout our forecast, which equals 2022 room additions. However, when considering the other drivers, namely the number of tourist arrivals in the US and world population growth, the final prediction ended up increasing.

Graph 74: All Other Regions N° of Rooms Management Segment – Revenue Drivers



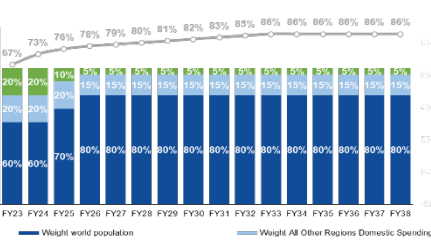
Source: Own Estimates

Graph 75: All Other Regions ADR (\$) of Management Segment – Revenue Drivers



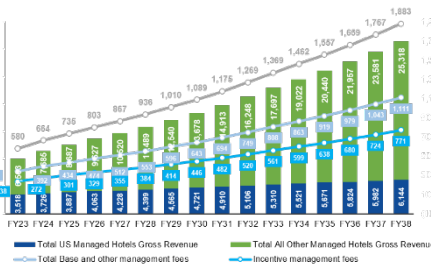
Source: Own Estimates

Graph 76: All Other Regions Occupancy Rate of Management Segment – Revenue Drivers



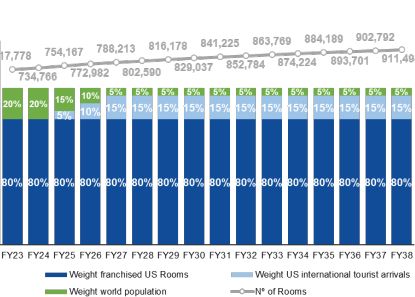
Source: Own Estimates

Graph 77: Management Segment Revenues Breakdown (\$M)



Source: Own Estimates

Graph 78: US N° of Rooms of Franchising Segment – Revenue Drivers



Source: Own Estimates

The number of tourist arrivals in the US is still largely influenced by the COVID downfall and thus we barely attribute any weight to it until it stabilizes in 2027, a rational applicable to all segments and geographies. Moreover, we predict the long-term growth for room number to round 0.6% from 2027 onwards reaching 92 961 rooms by 2038 (graph 71). A similar process is predicted for Occupancy as the pandemic rules in the last couple years brought the industry's numbers down. Hence, as both world international and US Domestic spending increase to normal values, the initial growth of occupancy is somewhat high but rapidly stabilizes at around 1%. However, as mentioned before we predict it to cease to grow in 2034 at 85.5% (graph 72). On the other hand, the ADR is already predicted to have a steady growth at around 2% year on year, reaching values of above 200\$ in the final years of the forecast (graph 73). The latter two combine to show a RevPAR growth of c.3% from FY25 onwards and later c.2% in the steady state. These drivers lead to a total US Managed gross revenue of \$6,144 million (graph 77), showing a 3.8% CAGR.

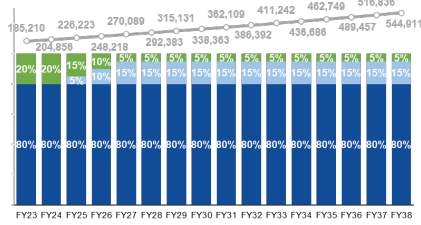
Regarding All Other Regions, the room growth shows to be higher, at c.5% year on year growth, mainly because of its historical trend where one can observe an average of 6.4%. Hence, we expect the number of rooms to reach values above 300k from 2035 onwards and end up around 360 694 by 2038 (graph 74). The ADR and Occupancy follow a similar trend to the US, showing long-term growths of c.2.3% for ADR, reaching 225\$ (graph 75) by the end of the forecast while Occupancy stabilizes at 85.6% (graph 76). The ADR outside the US is expected to grow more than in the US, even though we could not discriminate for historical performance, due to larger growths of the market size along with GDP. All these factors compound into a gross revenue of \$6 503 million in FY23 which doubles by FY32 (\$16 248m) and triples by FY38 (\$25 318m) – graph 77.

Further, we assumed the Base and Other Management fees rate to stay constant at the historical average of 4.0%, a slight growth from 2022 which may have still been influenced by Covid. The Amortization of contract acquisition costs was assumed to stay constant at the historical average of -\$17m. On the other hand, the intersegment elimination seemed to be somewhat constant as a percentage of base and other fees before 2020, hence, we assumed it to stay proportionally equal the historical average of -11.2% of base and other management fees. By 2038 Total Base and other management fees equalled \$771m as they were assumed to be a percentual part of the prior, where once more a historical average, excluding Covid affected years, was assumed (graph 77).

▪ Franchising Segment

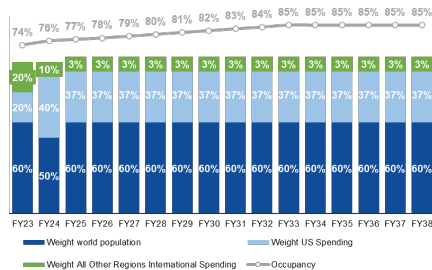
Regarding the firm's largest segment, the franchising one, both geographies have been seeing healthy Revenue growths. However, while US's room number increase has been stabilizing with its momentum slowing down, reaching a predicted long-term growth of -7.1% for room additions, the same cannot be said about the All-Other market. In this case, the room additions have been increasing at an average rate of 8.4% historically. Hence that was the growth we predicted for the short run, whereas in the long run we assumed the growth to slow down and stabilize around 5% year on year growth. This way, the projected number of rooms in the rest of the world go from c.19% of the total franchising rooms in 2022, to almost 43%. Moreover, when adding the effects of the other room number drivers, for which the rational was similar to the

Graph 79: All Other Regions N° of Rooms of Franchising Segment – Revenue



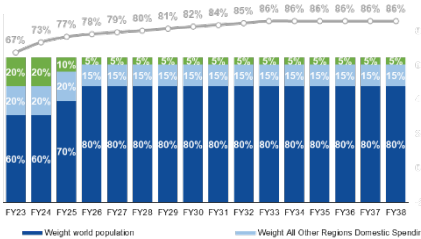
Source: Own Estimates

Graph 80: US Occupancy Rate of Franchising Segment – Revenue Drivers



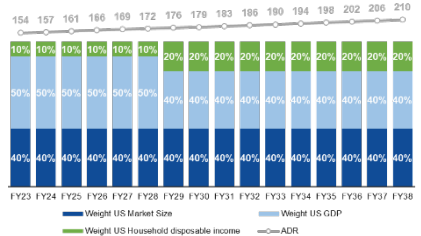
Source: Own Estimates

Graph 81: All Other Regions Occupancy Rate of Franchising Segment – Revenue Drivers



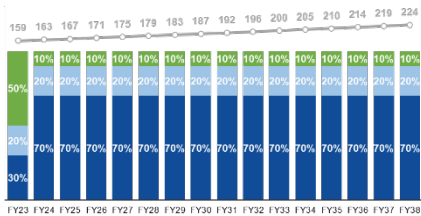
Source: Own Estimates

Graph 82: US ADR (\$) of Franchising Segment – Revenue Drivers



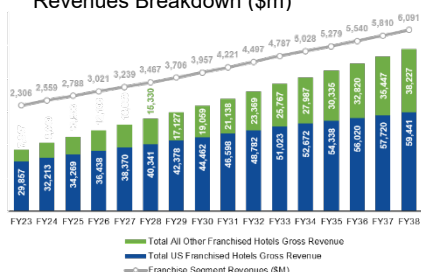
Source: Own Estimates

Graph 83: All Other Regions ADR (\$) of Franchising Segment – Revenue Drivers



Source: Own Estimates

Graph 84: Franchise Segment Revenues Breakdown (\$m)



Source: Own Estimates

management segment, we reach long-term growths of c.1% and c.5.5%, respectively.

This leads to predicted number of rooms of 911 494 (62.6% of predicted franchise rooms) for the US and 544 911(38,4%) for the rest of the world, showing the other drivers bring the growths of the two geographies closer together (graphs 78 and 79).

Regarding ADR and occupancy, the same rationale from the management was used, reaching LT occupations of 85.2% (US) and 85.7% (All Other), and LT ADR growth of 2.0% (210\$ in 2038 for the US) and 2.8% (224\$ in 2038 for All Other). Once again, the ADR drivers lead to larger growths outside the US rather than inside (graphs 80 to 83).

This way, we reach total US gross revenues of \$29 857 million in 2023 which grows to \$59 441 million by 2038 showing a 4.7% CAGR. Whereas for the rest of the world, the value rounds \$7 247 million in 2023 and \$38 227 million in 2038F, leading to a 11.7% CAGR (graph 84). The difference in growth is easily explained by the difference in investment and thus growth in the room number across the years. As Hilton is much better established inside the US, it is logical that their main source of growth in the future relies strongly on their international growth as they make efforts to expand.

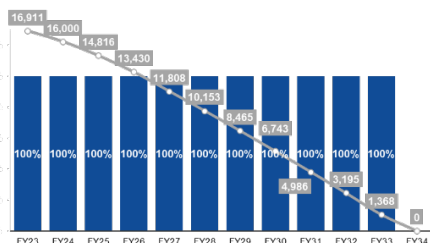
Royalty Fees rate were assumed to be constant as a historical average of gross revenue (6.2%), leading franchise and licensing fees to grow with the latter. Amortization of contract acquisition costs were once more assumed to equal historical average of -\$13m. This way, for 2038, with the total gross revenue at \$97 668m, we predict total franchise and licensing fees to equal \$6 091m (graph 84). This would mean the franchise subsegment would amount to 76.4% of the Management and Franchise segment, while the Management subsegment would amount to the other 23.6%, meaning the two subsegments are slightly closer to one another than in 2022 where the percentages were 80.8% and 19.2% respectively.

▪ Ownership Segment

Unlike the previously mentioned segments, the ownership one has not been growing lately as a clear disinvestment in this segment can be seen. In fact, the number of rooms in the rest of the world has already been decreasing in recent history. Thus, this trend was continued in our provision for the future. However, even with a constant decrease in the number of rooms in the segment, the gross revenues slightly increase through the first 2 years forecasted. This can be explained by the increase in Occupation which is projected to increase following the end of the pandemic along with an assumption of improved efficiency and larger demand common to the other segment. Additionally, the ADR is predicted to be higher in the Ownership segment than the others as it has already been higher in recent years due to the chain scale of its hotels. However, as Hilton keeps moving towards the asset light business model, we predict the ownership segment to completely cease to exist by 2034 when the firm enters the steady state period (graph 85). This means the Gross Revenue decreases constantly along with the other source of revenue from the segment, other ancillary goods services. This way, in 2024 we expect the segment to show the largest total revenues since 2019 at \$1 149m before decreasing until it reaches \$0 in 2034 (graph 86). We believe this is a feasible outcome since the same outcome was seen in the US a few years back and, bearing that the Ownership segment is the less profitable one and the riskiest, it is logical for Hilton to focus solely on the M&F segment.

▪ Other Revenues Segment

Graph 85: Total N° of Rooms of Ownership Segment – Revenue Drivers

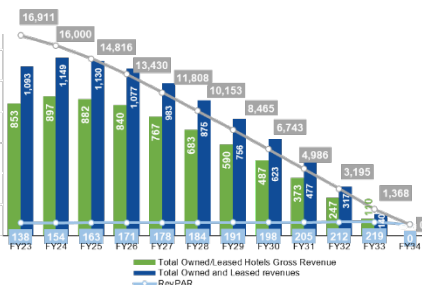


The final segment is the smallest one and, due to its small size and lack of available assumptions for the future, we assumed it to grow with the overall business, representing a percentage of Franchise and licensing fees plus Base and other management fees, Incentive management fees and owned and leased hotels revenues, based on historical data. This way, the Other Revenues segment is projected to reach \$231 million in 2038F, showing a 5.2% CAGR (graph 87).

■ Revenues Summary

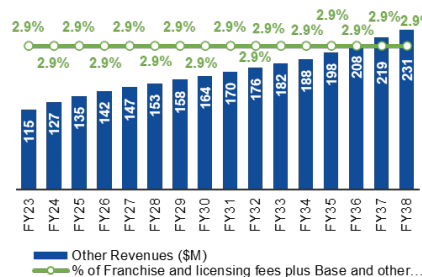
Hilton's financial outlook showcases a promising trajectory, driven by strategic investments in the Management and Franchising segment as opposed to the Ownership segment. Beginning at \$3 736m in FY22, we anticipate a solid CAGR of 4.96%, projecting total revenues to reach \$6 678m by FY34. This positive momentum continues with a steady 5.3% CAGR, after the ownership segment disappears, from FY34 to FY38, resulting in an estimated \$8 205m in revenue with the Management and Franchising segment consistently dominating the revenue composition, growing from 86.6% in FY22 to a commanding 96.8% by FY38 (graph 88).

Graph 86: Ownership Segment Revenues Breakdown (\$m)



Source: Own Estimates

Graph 87: Other Revenues Segment Evolution (\$) and Main Driver

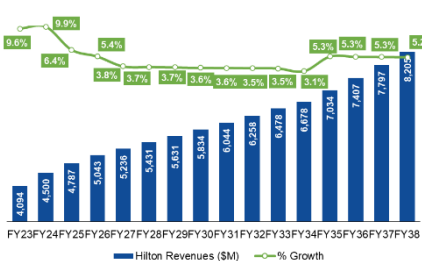


Source: Own Estimates

Operating Margins

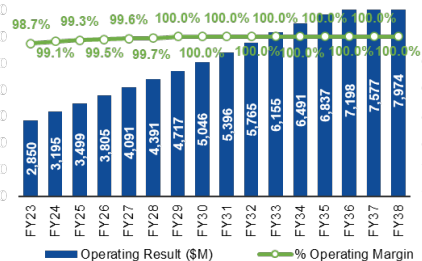
Advancing in our analysis, we projected the remaining factors impacting Hilton's operating margins. Opting for a segmented approach, we encountered challenges in allocating certain rubrics, such as General and Administrative expenses, Amortization of Other Intangible Assets, partial Depreciation on Property and Equipment, and other items. Due to insufficient information on their distribution across divisions, we assigned them to the "other revenues" segment, potentially influencing the margins of individual segments.

Graph 88: Hilton's Total Revenues Evolution (\$m)



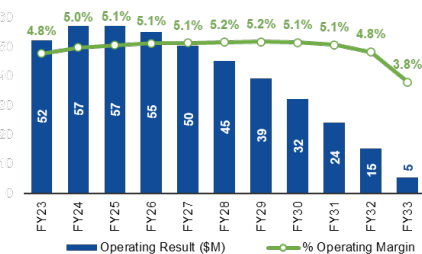
Source: Own Estimates

Graph 89: Hilton's Management and Franchising Segment Operating Performance (\$m)



Source: Own Estimates

Graph 90: Hilton's Ownership Segment Operating Performance (\$m)

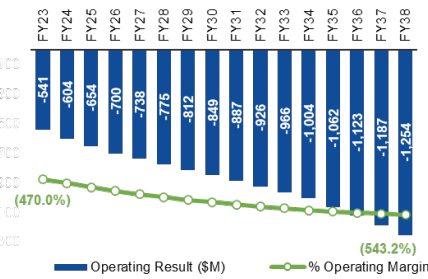


Source: Own Estimates

Starting with the Management and Franchising segment, we forecasted the Other Revenues from M&F properties as a percentage of the Gross Revenues as these are expected to be directly linked to the level of activity of the segment's hotels. Moreover, these revenues refer to reimbursements made from hotel owners to Hilton regarding costs the mother firm incurred on during the management of such hotels. The costs associated to these reimbursements are the Other Expenses from M&F properties, which were thus assumed to equal the other revenues talked above as they should eventually cancel out. Hence, these two captions end up not influencing Hilton's margins, nor on operating income. Further, the only other expense that could directly be associated with the segment is the Amortization of Management and Franchise Recorded at Merger, which refers to Intangible Assets recorded at fair value at the time of the merger. These assets have been decreasing in book value due to their limited life expectancy and thus we projected them to, in FY29, completely lose their book value leaving no amortization to be registered. Thus, the amortization of such assets is predicted to decrease before reaching zero in the same year. This way from then on, there are no costs only associated with the M&F segment, leaving the operating margin at 100%, while before it was just shy of that value rounding 99% due to the small Amortization value (graph 89). Nevertheless, one should look at this value with carefulness as there are other costs associated that just could not be discriminated.

Moving onto the Ownership segment, the two main expenses registered are Depreciation on property and equipment, which, as explained further in the CAPEX section, refers to Depreciation of P&E from all other region, and the Owned and Leased

Graph 91: Hilton's Other Revenues Segment Operating Performance (\$m)



Source: Own Estimates

Graph 92: Hilton's Total Operating Performance (\$m)

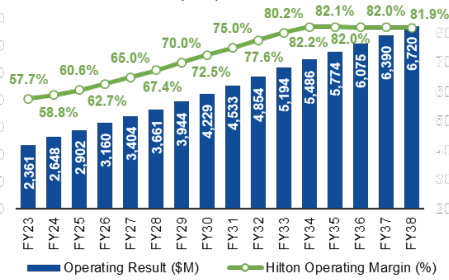


Table 12: Relative Valuation Multiples

(as of September 12th, 2023)			
Multiples	EV/Revenues	EV/EBITDA	EV/EBIT
HILTON WORLDWIDE	5.0x	20.1x	21.4x
MAR	3.2x	16.9x	18.1x
HYATT	2.1x	16.9x	35.3x
WYNDHAM	5.8x	14.7x	16.9x
CHOICE	5.0x	15.2x	18.3x
IHG	7.1x	14.1x	15.3x
Hilton Implied Multiple by DCF	12.7x	20.7x	21.6x
Multiples	1st Quartile	Median	3rd Quartile
EV/EBITDA	14.8x	16.1x	16.9x
EV/EBIT	17.2x	18.2x	20.6x

Source: Own Estimates

Table 14: Cost of Debt (Rd) - Sensitivity Analysis

Rd	3.9%	4.4%	4.8%	5.3%	5.8%
WACC	9.15%	9.21%	9.27%	9.33%	9.40%

Source: Own Estimates

Table 15: WACC Sensitivity Analysis

Rd	Re				
	9.23%	9.88%	10.52%	11.19%	11.90%
3.91%	8.09%	8.62%	9.15%	9.69%	10.28%
4.37%	8.15%	8.68%	9.21%	9.76%	10.34%
4.83%	8.22%	8.74%	9.27%	9.82%	10.40%
5.29%	8.28%	8.81%	9.33%	9.88%	10.47%
5.75%	8.34%	8.87%	9.40%	9.94%	10.53%

Source: Own Estimates

Hotels Expenses which represents the COGS of the segment and were calculated as a percentage of the segments revenues equal to 2022 (92%). This way the segments Operation Margin rounds 5% before the segment ceases to exist in 2034 (graph 90).

In the Other Revenues Segment, G&A expenses were forecasted as a historical percentage of total revenues at -13.8%, alike the other expenses at -1.6%. Gains (losses) on foreign transactions, and both other comprehensive income captions were forecasted to stay at a historical average of -\$7m, \$15m and \$19m, respectfully. This way, due to the segments' low revenues and the allocation of system wide expenses, the segment ends up having Operating Margins rounding -540% in the later stages of the forecast (graph 91).

Overall, the company shows an increasing trend for their Operating EBIT margin (57.7% in 2023), as the ownership segment continues to lose weight, before stabilizing in 2034 at c.82%, which is perhaps a better estimation of the actual operating margin from the M&F segment as this is now the only main segment (graph 92)

Relative Valuation

In terms of relative valuation, we choose the competitive set defined before since they are closely aligned with Hilton, including Marriott, Hyatt, Wyndham, Intercontinental and Choice, due to shared characteristics in business model.

Hence, using the Last Twelve Months (LTM) data for these companies, we found values for EV to EBITDA ranging from 14.8x to 16.9x for the peers while for Hilton itself the ratio raised to 20.1x. Further, we reach price per share values from \$133.0 to \$168.4, and \$207.3 using Hilton's valuation. We chose EV-to-EBITDA over EV-to-EBIT, as the firm does not show to have heavy depreciation and amortization expenses mainly due to the asset light business plan. There were also no big outliers using this metric as all the peers seem to be within a close range of values. One can also note that Hilton's valuation through multiples is much inflated compared to those of the peers, potentially because of its strong post-pandemic recovery and the benefits of its higher focus on the M&F segment that may allow it to grow with lesser capital risks.

Moreover, the Median EV-to-EBITDA multiple of the industry amounted to 16.1x, leading to an implied price per share of \$187.16 which we believe to fall short of the expected price per share of Hilton by December 2024 as Hilton and has been outgrowing the market. Furthermore, the plans for expansion can be clearly observed through the growth in number of properties and rooms through the world. This can also be seen by the evolution of the firm's Share Price throughout the last couple months as it grew nearly 15% from \$154.74 as of September 15th to \$177.23 on December 17th, 2023. Hence, we believe an EV-to-EBITDA of 20.7x supported by our DCF model would be more appropriate and better reflect Hilton's fair Market Value (table 12).

Sensitivity Analysis

Initially, a sensitivity analysis was undertaken for the β_e and, consequently, the R_e . This involved establishing a 95% confidence interval for Marriott, Intercontinental, Hyatt, Wyndham, and Choice β_e . Unlevering and averaging their extreme values within this interval, we then re-leveraged the data for a sensitivity analysis using Hilton's future capital structure ratios. The possible values for β_e ranged from 1.12 to 1.73, translating to a cost of equity between 9.23% and 11.90%, as summarized in table 13.

Table 16: Price per Share (\$) – Sensitivity Analysis to WACC

WACC				
8.09%	8.67%	9.24%	9.88%	10.53%
294.29	239.35	199.74	166.72	141.58

Source: Own Estimates

Table 17: Terminal Value (\$TV) – Sensitivity Analysis

NOPLAT g	4.61%	4.86%	5.11%	5.36%	5.61%
FCF	4,701	4,712	4,723	4,735	4,746
TV	101,595	107,655	114,448	122,117	130,844

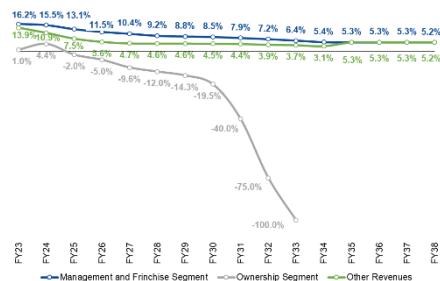
Source: Own Estimates

Table 18: WACC and Growth (NOPLAT g) – Sensitivity Analysis

NOPLAT g	WACC				
	199.74	8.09%	8.67%	9.24%	9.88%
4.61%	259.73	216.08	183.32	155.13	133.12
4.86%	275.67	226.95	191.06	160.63	137.17
5.11%	294.29	239.35	199.74	166.72	141.58
5.36%	316.32	253.62	209.54	173.47	146.43
5.61%	342.79	270.24	220.70	181.02	151.76

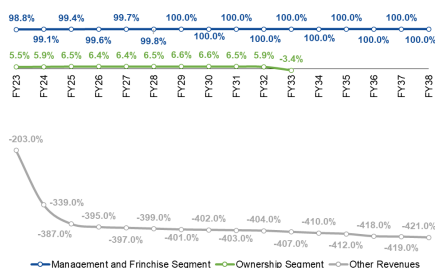
Source: Own Estimates

Graph 102: Best-Case Scenario Revenues Growth, by Segment



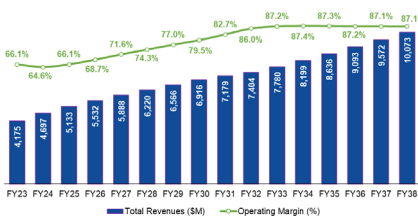
Source: Own Estimates

Graph 103: Best-Case Scenario Operating Margins, by Segment



Source: Own Estimates

Graph 104: Best-Case Scenario Revenues and Operating Margin Forecast



Source: Own Estimates

Table 19: Best-Case Scenario Results

Best-Case Scenario	
FCF g (FY38)	5.3%
NOPLAT g (FY38)	5.2%
WACC	9.24%
Perpetual Growth	5.2%
Terminal Value	150,423
Enterprise Value (FY24)	73,618
Price Per Share	\$254.38

Source: Own Estimates

Further, a sensitivity analysis on Rd was conducted, with the range falling within Hilton's Yield to Maturity (YTM) and an Rd estimation in the event of the firm dropping from its current credit rating (Ba2 for senior unsecured debt) to Ba3. Table 14 illustrates that the potential range for Rd has minimal impact on WACC. Measuring both potential changes together, WACC values could vary from 8.09% to 10.53%, leading to a share price range of \$141.58 to \$294.29 (table 15 and 16).

Moreover, a sensitivity analysis for the Terminal Value was performed, varying the LT NOPLAT g. Further, the sensitivity was enhanced by adjusting the Free Cash Flow used in the terminal value formula, accounting for the change in NOPLAT g. This yielded reasonable values ranging from \$101 595m to \$130 844m (table 17). Lastly, a sensitivity analysis on the price per share revealed the impact of changes in WACC and g. The selected range for WACC was determined in prior sensitivity analyses for these inputs while g was set to vary by 0.25%. Analysing the output one can see the model remained sensitive to these inputs, emphasizing the need for careful consideration of assumptions, especially regarding changes in WACC (table 18).

Scenario Analysis

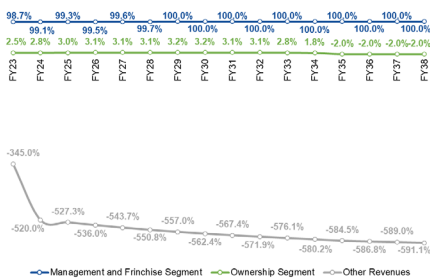
Best-Case Scenario

In our optimistic scenario, we base our projections on seven key assumptions: a faster and more robust economic recovery for the hospitality industry, an outstanding expansion of the management and franchising segment, a more rapidly disappearing of owned' properties and as a result, a substantial decrease in fixed costs, higher occupancy rates, increased operating efficiency across the three main business segments, reduced capital requirements as a percentage of revenues.

Anticipating a quicker global economic recovery for the travel sector as a consequence of both expected increase in GDP and household disposable income, as well as a boost in travellers' confidence about domestic and international travel, we foresee a positive impact on Hilton. Therefore, this would lead to higher revenues and improved operating margins, especially as the weight of the more lucrative management and franchise segment increases (graphs 102 and 104). Additionally, in this scenario, the assumed ongoing strategy of becoming a full asset-light business to happen slightly faster, with a remarkable growth of the number of rooms in management and franchise segment, while a faster decrease in owned hotels would not damage Hilton's reputation (graph 102). The M&F segment would then experience a near double digit CAGR of 9.8% from 2023 to 2033 before stabilizing at the same growth as the base scenario, although at a larger scale. Whereas the owned segment would disappear one year earlier as the company fully focuses on maintaining their reputation and growing M&F, which would also lead overall operating margins to increase as the owned segment is the least profitable one. Further, this would lead fixed costs down earlier, along with PPE, while captions such as Brands and M&F contracts, net would increase in value and in percentage of revenues to the larger weight of the segment. Further, as the Liability for Guest LP and Deferred revenues are such good enhancers of M&F revenues, as mentioned before, we also predict there would be more investment in trying to increase these values in amount and in percentage of revenues by c.4pp.

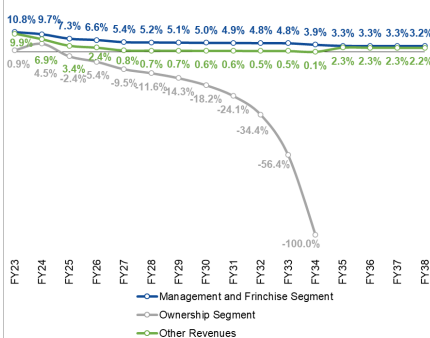
This potential Best-Case scenario culminates in FY38 NOPLAT of \$6 536m and Operating FCF of \$5 807m, leading to a TV of \$150 423m as LT NOPLAT g stayed at

Graph 105: Worst-Case Scenario Operating Margins, by Segment

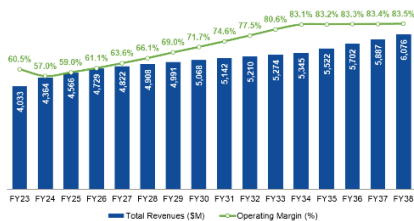


Source: Own Estimates

Graph 106: Worst-Case Scenario Revenues Growth, by Segment



Graph 107: Worst-Case Scenario Revenues and Operating Margin Forecast



Source: Own Estimates

Table 20: Worst-Case Scenario Results

Worst-Case Scenario	
FCF g (FY38)	3.0%
NOPLAT g (FY38)	2.8%
WACC	9.24%
Perpetual Growth	2.8%
Terminal Value	51,879
Enterprise Value (FY24)	35,606
Price Per Share	\$123.02

Source: Own Estimates

5.2%. Assuming the same WACC and ND/EV values we reached a price per share of \$254.38, significantly higher than the base case (table 19).

▪ **Worst-Case Scenario**

In the worst-case scenario, a more conservative approach is expected in terms of fully industry recover after COVID-19, being this expected to only happen in a later stage, contributing to economic uncertainty and reduced investments. Lower occupancy rates, driven by lack of confidence of travellers due to safety concerns, as well as because of a combination of lower household disposable income, resulting from lower GDP growth, and higher ADR due to higher inflation. All this further impact Hilton's operating margins negatively (graph 105).

Further, in this worst-case scenario we see Hilton's reputation to worsen as a consequence of them being less in control over their operations in the M&F hotels, with each hotel owner wanting more responsibility. This would also impact revenues in a negative way. Hence, we project revenues growth to be between 2pp and 3pp lower bearing a larger decrease for M&F than for the ownership segment. We also expect the ownership segment to cease to exist in the same year as in the base-case scenario. This would culminate in a revenues CAGR of only 2.25% throughout the forecast (graph 106 and 107).

Regarding profitability, there was not much change for M&F as the costs are small and would not change as it only refers to the amortization of M&F recorded at merger. However, as an increase in inflation is forecasted, the costs for the other segments were forecasted to increase leading the operating margins of the ownership segment to decrease in 2pp and c.50pp for the Other Revenues as the revenues from this segment were significantly low (graph 105).

Although we expect this scenario to have the ownership segment's existence to stop in a similar timeframe as in the base-scenario, we still think PPE over revenues would be smaller, and so would the Brands and M&F contracts captions, with the latter two suffering more severely (1, 3 and 2 pp decreases respectfully). We also assume a lesser investment in the loyalty program and so, its liabilities, as well as the deferred revenues would both come closer to 0 as a percentage of revenues by 1pp.

Overall, Hilton would reach a FY38 NOPLAT of \$3 465m and FCF of \$3 270m, as investment would also decrease. In this scenario we forecast a final NOPLAT g of only 2.8% meaning a TV of \$51 879m. Discounting the cashflows, we reach an EV of \$35 606m meaning a price of \$123.02 per share (table 20).