Lisbon School of Economics & Management
Universidade de Lisboa

MASTERS IN
FINANCE

MASTERS FINAL WORK
PROJECT

EQUITY RESEARCH:
HILTON WORLDWIDE HOLDINGS INC.

MEHÁ BHANJI

OCTOBER 2022

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SUPERVISOR:
JOSÉ DIAS LOPES

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Abstract

This Equity Research Report contains a valuation of Hilton Worldwide Holdings Inc. (“HLT”) and follows the format recommended by the CFA Institute.

The hospitality industry was elected to perform my Master Final Work due to my passion for travel and Hilton was the selected company for being one of the leading and largest in the hotel business. Hilton’s portfolio comprises 6,837 properties, 1,074,791 rooms and 18 brands in 122 countries and territories.

This research is issued considering only publicly available information on September 28th, 2022. Therefore, any event or information available after this date has not been reflected.

Our investment recommendation for 2023YE stands for HOLD, with a PT of $132.25 computed though the WACC method, corresponding to an upside potential of 6.94% or a potential annualized return of 5.46%, against the closing price of $123.67 on September 28th, 2022. In addition, to strengthen our recommendation other models were used, namely the Adjusted Present Value (APV), Flow-to-Equity (FTE) as well as a relative valuation.

To conclude and complete our report, a sensitivity analysis and a Monte Carlo Simulation were performed to the price target for changes in WACC, terminal growth rate, Risk-free and RevPAR. Our risk assessment estimates a medium risk for the company.

JEL classification: G10 ; G32 ; G34 ; Z31

Keywords: Hilton; Equity Research; Valuation; Hospitality Industry

Resumo

O projeto que se segue contém uma avaliação da Hilton Worldwide Holdings Inc. (“HLT”) e foi elaborado em conformidade com as recomendações do CFA Institute.

Sendo viajar uma das minhas paixões, a indústria hoteleira foi a selecionada para a realização do meu projeto final de mestrado e a Hilton foi a empresa escolhida por ser considerada uma das líderes da indústria. O portfolio da Hilton inclui 6,837 propriedades, 1,074,791 quartos e 18 marcas em 122 países e territórios.

Apenas informação pública disponível a 28 de setembro de 2022 foi considerada, qualquer evento ou informação após esta data não foi refletida.

A recomendação de investimento para Hilton é de MANTER, com um preço-alvo de $132.25 no final de 2023 calculado através do modelo *WACC*, representando uma potencial valorização de 6.94% ou um potencial retorno anual de 5.46% face ao preço do dia 28 de setembro de 2022 de $123.67. Adicionalmente, outros métodos foram utilizados, nomeadamente o *Adjusted Present Value (APV), Flow-to-Equity (FTE)* e ainda o modelo dos múltiplos comparáveis.

De modo a concluir e complementar a nossa recomendação, realizamos uma análise de sensibilidade e uma *Monte Carlo Simulation* ao preço alvo para as variações no *WACC*, taxa de crescimento, *Risk-free* e *RevPAR*. A nossa avaliação de risco estima um risco médio para a empresa.

Classificação JEL: G10 ; G32; G34 ; Z31

Palavras-chave: Hilton; *Equity Research*; Avaliação de Empresas; Indústria Hoteleira

Acknowledgements

To my family, especially to my beloved parents and brother, for all the unconditional support and patience at most stressful times.
To my dearest friends, for the unwavering support and joyful moments. A particular note to Catarina Berry, together we cry, together we laugh.
To my supervisor José Dias Lopes, for the availability and insightful feedback.

To all, my deepest thanks.

Index

List of Figures

List of Tables

Abbreviations

ADR - Average Daily Price
APV - Adjusted Present Value
AUD – Australian Dollar
BICS - Bloomberg Industry Classification System
BoD - Board of Directors
Bn - Billions
bps - Basis Points
CAGR - Compound Annual Growth Rate
CAPEX - Capital Expenditures
CAPM - Capital Asset Pricing Model
CEO - Chief Executive Officer
COGS - Cost of goods sold
CRP - Country Risk Premium
D&A - Depreciations and Amortizations
DCF - Discounted Cash Flow
DDM - Dividend Discount Model
EBITDA - Earnings Before Interest, Taxes Depreciation, and Amortization
EBIT - Earnings Before Interest, Taxes,
EMEA - Europe, Middle East, and Africa
ERP - Equity Risk Premium
ESG - Environmental, Social and Governance
EUR- Euro
EV - Enterprise Value
F - Forecast (as in 2022F)
FCFE - Free Cash Flow to Equity
FCFF - Free Cash Flow to the Firm
FTE - Flow to Equity
FY - Fiscal Year
g - Long-run sustainable growth rate
GDP - Gross Domestic Product
HDI - Household Disposable Income
HLT - Hilton Worldwide Holdings Inc.
IMF - International Monetary Fund
IP - intellectual property
IPO - initial public offering
Kd - Cost of debt
Ke - Cost of equity
LTI - Long-term incentive
M - Millions
M&A - Mergers and Acquisitions
NEO's - Named Executive Officers
NUG - Net Unit Growth
NWC – Net Working Capital
NYSE - New York Stock Exchange
OECD - Organization for Economic Cooperation and Development
OTA - Online Travel Agencies
P/E - Price to Earnings
PP&E - Property, Plant & Equipment
PV - Present Value
PT - Price Target
REIT - Real Estate Investment
RevPAR - Revenue per available room
Rf - Risk free rate
ROA - Return on Assets
ROE - Return on Equity
ROIC - Return on Invested Capital
RPI - RevPAR index
SARD - Sum of Absolute Rank Differences
SDG's - Sustainable Development Goals
TV - Terminal Value
T&T - Travel & Tourism
UNWTO - World Tourism Organization
USD or $ - United States Dollar
US - United States of America
WACC - Weighted Average Cost of Capital
WTTC - World Travel & Tourism Council
YE - Year End
YoY - Year Over Year

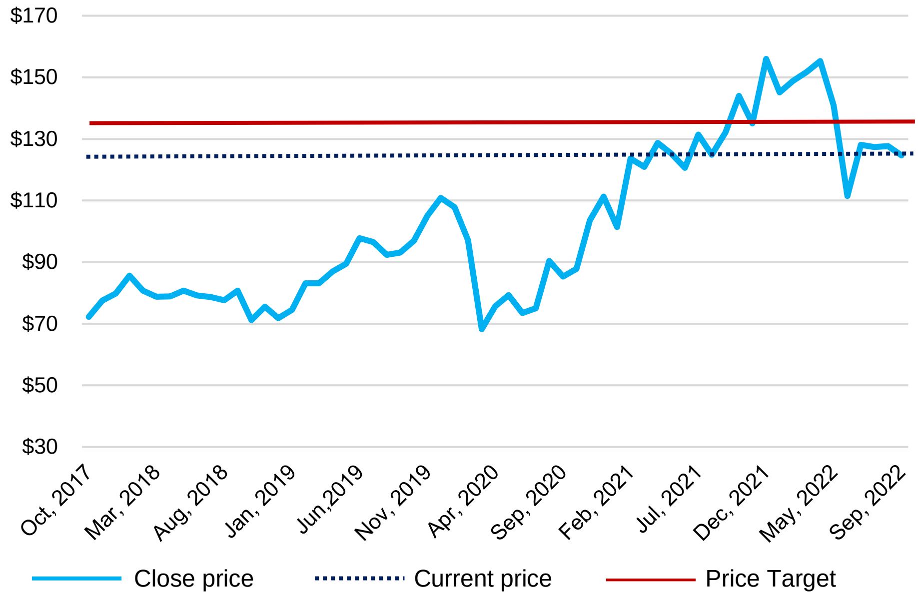
Hilton

Current Price	Target Price	Recommendation	Upside Potential	Annualized Return	Level of Risk
$123.67/share (28/09/2022)	$132.25/share (31/12/2023)	**HOLD**	⬆ 6.94%	⬆ 5.46%	Medium

1. Research Snapshot

We issue a HOLD recommendation for Hilton Worldwide Holdings Inc. ("HLT") with a 2023YE PT of $132.25/share using the WACC as the principal method, implying a 6.94% upside potential from the September 28th, 2022 closing price of $123.67/share, with medium risk (Figure 3).

Figure 3 - 5Y Monthly Stock Price vs Price Target



Source: Yahoo Finance; Author's Analysis

Most valuable hotel brand portfolio and shift to a fully-fee based business model

Hilton Worldwide Holdings Inc. is one of the world's leading hotel service providers. The company is engaged in managing, franchising, owning, and leasing approximately 6,800 properties across 122 countries and territories. Its portfolio of 18 brands is considered the most valuable in the industry, which leverages the strategy of becoming a fully-fee based company that enables business growth with reduced capital investment needs. Hence, the Management and Franchise segment is expected to grow at +13.82% CAGR 2021-2026F and should represent 75% of Total Revenues at the end of the forecasted period.

Covid-19 full recovery, nonetheless new challenges may be on the horizon

After the turmoil recently faced, the hospitality industry is currently showing strong signs of recovery with a pent-up demand in tourism led mostly by leisure travel. Hilton's RevPAR is projected to grow at +22.84% and +9.39% CAGR 2021-2026F in the Ownership and Management and Franchise segment, respectively (Figure 1), reaching pre-pandemic levels by 2023 in both business segments. Total revenues are expected to increase at 16.97% CAGR 2021-2026F. Nevertheless, as a cyclical industry the adverse macroeconomic conditions in light of the present geopolitical tensions can represent a significant threat to the industry recovery path.

Table 1 - Market Profile

Market Profile	
Ticker	HLT
Stock Exchange	NYSE
Industry	Hospitality
Market Cap ($Bn)	33.921
Free float (%)	98.26
52-week range ($/share)	108.41-167.99
Shares outstanding (#M)	274.29

Source: Yahoo Finance (28/09/2022)

Table 2 - Risk Assessment

Low	**Medium**	High

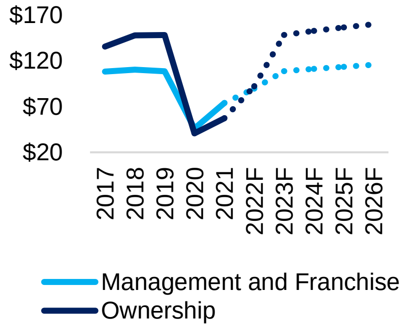
Source: Author's Analysis

Table 3- Financial Highlights

	2021	2022F	2026F
Revenues ($M)	5,788	8,184	12,674
EBIT ($M)	1,010	1,637	2,650
EBIT Margin (%)	17.45	20	20.91
Net Income ($M)	410	979	1,898
Net Profit Margin (%)	7.03	11.93	14.96
Debt to EBITDA (x)	7.66	4.90	2.01
Interest coverage ratio (x)	2.54	3.86	9.69
ROIC (%)	5.88	10.20	15.79

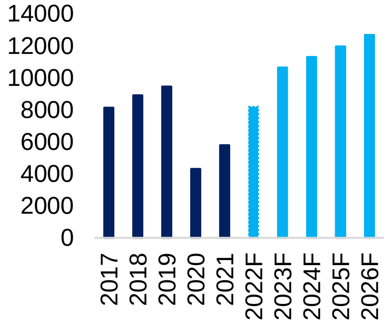
Source: Author's Analysis

Figure 1- Hilton's RevPAR 2017-2026F



Source: Hilton's Quarterly Resutls; Author's Analysis

Figure 2 - Total Revenues 2017-2026F ($M)



Source: Hilton's Annual Reports; Author's Analysis

2. Business Description

2.1 The Company

Hilton Worldwide Holdings Inc. ("HLT") is one of the largest and leading hospitality companies worldwide, with a market capitalization of $33.921Bn[1], total revenues of $5,788M and total assets amounting to $15,441M in 2021YE.

The company portfolio encompasses 6,837 properties, 1,074,791 rooms and 18 brands in 122 countries and territories (Figure 4). Regarding the chain scale, the main segments are: Upper Midscale (33%), Upscale (33%) and Upper Upscale (29%) (Figure 5).

Hilton's operations are organized mainly in two distinct segments: Management and Franchise, which is the major segment, representing 99% of the total system properties that generated 72% of total revenues in 2021YE ($1,797M), and Ownership ($421M). Geographically, the company conducts business in: Europe, the Middle East, and Africa ("EMEA"), Asia and Pacific, the Americas excluding US [2]and the US. US has the largest share of revenues and Adjusted EBITDA, 82% - $4,765M and 87%, respectively since 79% of the total system properties belong to this region (Figure 6 and 7).

2.2 The History

Hilton's history dates to 1919, when Conrad Hilton driven by the vision "to fill the earth with the light and warmth of hospitality", purchased his first hotel in Cisco, Texas. However, only in 1925 the first hotel with the name Hilton was opened in Dallas, Texas.

In 1946, Hilton Hotels Corporation was formed and listed in the NYSE under the ticker "HLT", becoming the first hotel company to be listed on the stock exchange.

Three years later, in 1949, Hilton International was born with the opening of the Caribe Hilton in Puerto Rico.

Throughout the years the company expanded its hotel portfolio and became the pioneer of many concepts in the industry, such as: the first in-room televisions, the first airport hotel and the first upscale lodging company to develop the concept of franchising hotels.

In October 2007, Hilton Hotels Corporation left the NYSE following its $26Bn leveraged buyout deal with an affiliate of the Blackstone Group's real estate and corporate private equity funds.

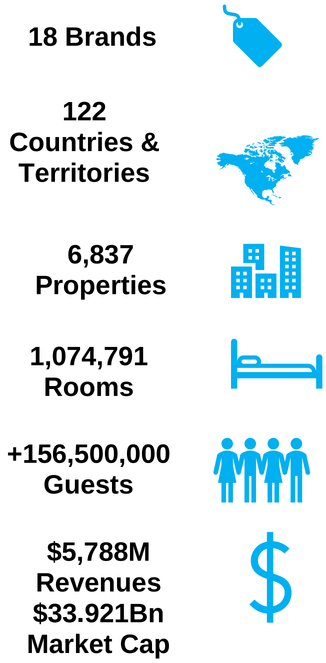
During 2009, the company moved its global headquarters to McLean, Virginia and launched the present corporate name – Hilton Worldwide Holdings Inc.

Later in December 2013, Hilton returned to the NYSE under the same ticker with the second IPO raising approximately $2.35 Bn.

In 2017, as part of its strategy to shift to an asset light model, lower debt, taxes and boost value to shareholders, Hilton completed the spin-off of Park Hotel & Resorts ("Park"), a lodging Real Estate Investment (REIT) and Hilton Grand

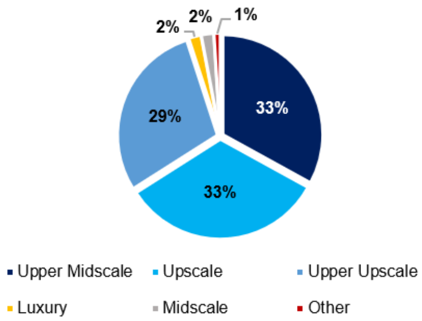
[1] On 28th September 2022
[2] Americas excluding US include Central America, South America, and all Caribbean nations

Figure 4 - Hilton's profile



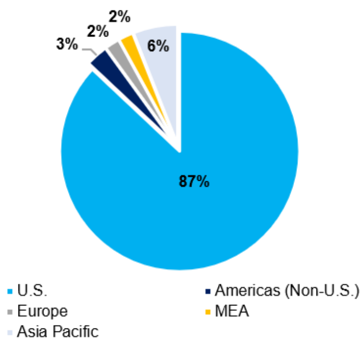
Source: Hilton FY21 Annual Report; Yahoo Finance (28/09/2022)

Figure 5 - Rooms by chain scale



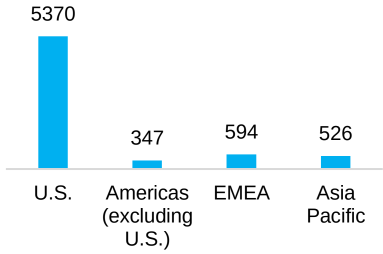
Source: Hilton's May 2022 Investor Presentation

Figure 6 - 2021 Adjusted EBITDA by Geography



Source: Hilton's February 2022 Investor Presentation

Figure 7 - Hilton's total system properties by region, 2021



Source: Hilton FY21 Annual Report

Vacation Inc. ("HGV"), its timeshare business, resulting in three independent publicly traded companies.

Nearly 11 years after holding an interest in Hilton Worldwide Holdings Inc, in 2018, the Blackstone Group LP decided to sell its about 5.8% of stake.

As of March 2022, Hilton closed its corporate office in Moscow and suspended all new development activity in Russia as a response to the Ukraine invasion.

2.3 Financial Highlights

In 2021YE the overall ease of restrictions worldwide, the reopening of hotels with suspended operations and the distribution of Covid-19 vaccinations allowed for an improvement in Hiltons' financial results, reaching $5,788M of total revenues (+34% YoY), $1,629M of Adjusted EBITDA (+93% YoY) and $407M of net profit (+157% YoY).

2.4 Business Segments

The business model is organized in two segments: Ownership segment and Management and Franchise segment.

Ownership Segment

This segment revenues derive from hotel room sales, food & beverage, and other ancillary goods and services sold to individual guests traveling for business or leisure and to group guests traveling to attend events (e.g., business conferences). As of 2021YE the Ownership segment comprised 54 hotels and 18,151 rooms owned or leased by Hilton or its affiliates, that contributed with $598M (+42% YoY) in revenues (Figure 8).

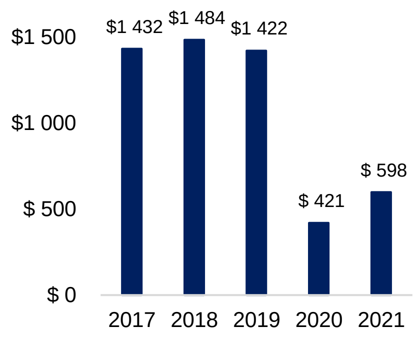
Throughout the years the number of properties in this segment has been decreasing (-9% CAGR 2018-2021), with a significant reduction in 2017 (-48% YoY) due to the spin-off that emphasized Hilton's strategy to shift to a fully asset-light business model, however the timing differs among regions (Figure 9/Appendix 1). For instance, in the US, Hilton has already fully adopted this model, whereas in Europe approximately 8.5% of properties are owned and leased, being 76% of this segment's properties located in this region (Figure 10).

Management & Franchise Segment

This segment earnings derive from collecting fees settled by contracts with third-party hotel owners in exchange for management expertise and intellectual property ("IP") (i.e., brand name, trademarks, service marks, logos, patents) as well as operating systems. Hence, the revenues depend on Hilton's ability to attract owners to become part of its system.

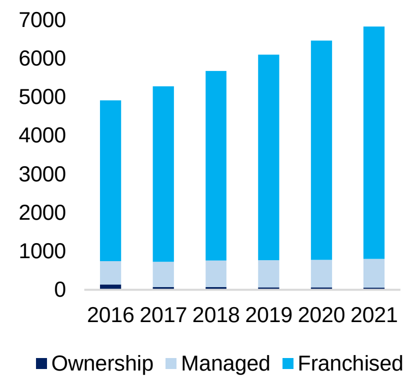
In contrast with the Ownership segment, the Management and Franchise segment revenues have been increasing over the years (+11% CAGR 2009-2019). In 2020, with the effects of the pandemic this segment displayed a value of $1,106M (-51% YoY), gradually rebounding in 2021 reaching $1,767M (+60% YoY) (Figure 11).

Figure 8 - Ownership segment revenues ($M)



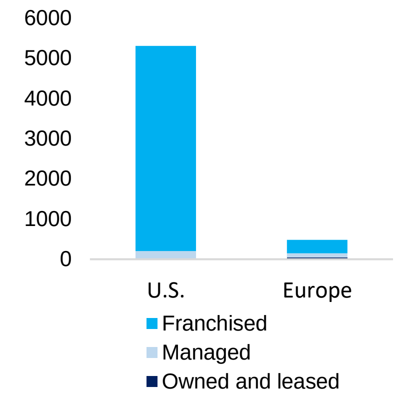
Source: Hilton's Annual Report

Figure 9 - Number of properties by business segment, 2016-2021YE



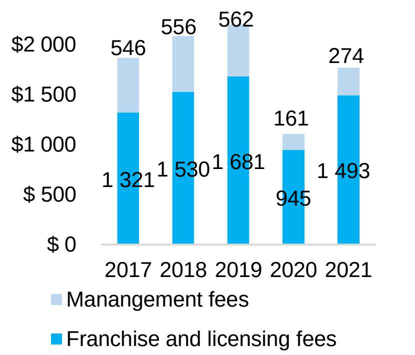
Source: Hilton's Annual Report

Figure 10 - Number of properties by business segment in the US and Europe, as of December 2021



Source: Hilton's Annual Report

Figure 11 - Management and Franchise segment revenues ($M)



Source: Hilton's Annual Report

Hotel Management Subsegment

In 2021YE this segment contributed with $274M (+70% YoY) in revenues (Figure 11). As of 2021YE, Hilton managed 745 hotels with 234,640 rooms on behalf of third-party owners. The revenues of the Hotel Management segment derive mainly from a base management fee (64% in 2021YE), which is based on the percentage of the hotel's monthly gross revenue and, also, when applicable, from an incentive fee (36% in 2021YE), which is based on the percentage of the hotels operating profits.

Hotel Franchising Subsegment

The most contributor to Hilton's revenues, accounting for 61% - $1,493M (+58% YoY) in 2021YE (Figure 11). This segment comprises 6,038 hotels and resorts with 822,000 rooms owned and operated by third-party owners and management companies. The earnings from this segment include monthly royalty fees; application, initiation and other fees charged for new hotels entering the system, or for hotels extending their contract or for hotels changing ownership.

Other revenues and Other revenues from managed and franchised properties

Furthermore, the company also discloses Other revenues ($79M in 2021YE) and Other revenues from managed and franchised properties ($3,344M in 2021YE). Other revenues are related with support operations for both segments and result from purchase operations and other operating income. While Other revenues from managed and franchised properties correspond to amounts paid back by property owners to Hilton for direct and indirect costs, i.e. - Other expenses from managed and franchised properties ($3,454M in 2021YE).

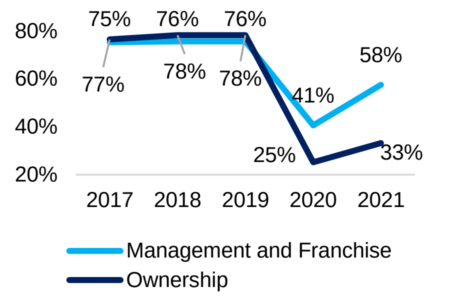
2.5 Key Drivers of Profitability

Occupancy rate

This indicator is calculated by dividing the total number of rooms nights sold by the total number of room nights available at a hotel for a given period (Appendix 2), measuring the utilization of the hotels' available capacity. Hilton management uses this driver to gauge the hotels' demand for a given period and to determine achievable ADR pricing levels in accordance with demand fluctuations

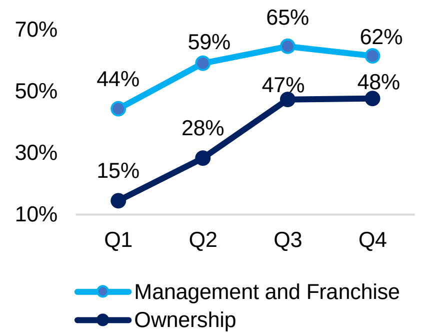
Before the pandemic, Hilton had a stable occupancy rate at around 76% in both segments. However, in 2020 the occupancy fell to an all-time low due to mobility restrictions and the suspension of some hotel's operations triggered by the pandemic. In 2021, there was an increase in demand caused mainly by the gradual ease of restrictions, with the Management and Franchise segment displaying an occupancy of 58% (+42% YoY) and the Ownership segment presenting a value of 33% (+32% YoY) (Figure 12). The latter segment was also the most affected and presented a slower recovery as 76% of this segment's hotels are in Europe, where demand decreased more aggressively.

Figure 12 - Hilton's Occupancy rates (2017-2021YE)



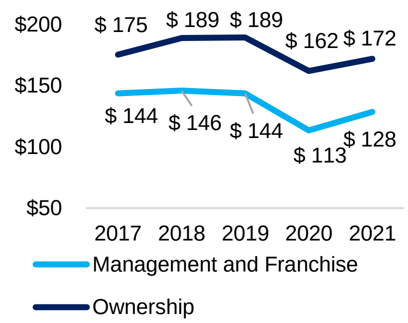
Source: Hilton's Quarterly Resutls

Figure 13 - Hilton's 2021 Occupancy rates by quarter



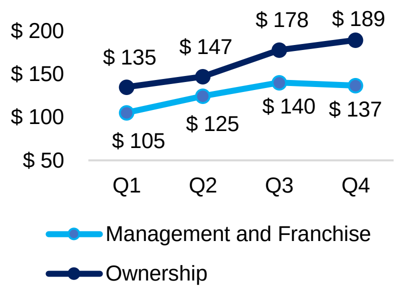
Source: Hilton's Quarterly Resutls

Figure 14 - Hilton's ADR (2017-2021YE)



Source: Hilton's Quarterly Resutls

Figure 15 - Hilton's 2021 ADR by quarter



Source: Hilton's Quarterly Resutls

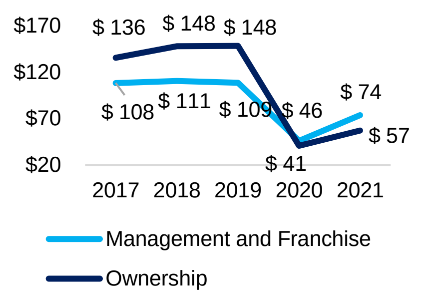
Average Daily Rate (ADR)

Consists in dividing the hotel room revenue by the total number of room nights sold for a specific period (Appendix 2), measuring the average room price. ADR displays useful information about the pricing environment and the nature of the customer base. Hilton uses this driver to assess the pricing levels that can be generated by different types of customers and its effects on revenues and profitability.

Up until 2020, ADR levels were constant at around $185 in the Ownership segment and $145 in the Management and Franchise segment. Reflecting the drop in occupancy, in 2020, the ADR also fall to $162 in the Ownership segment and to $113 in the Management and Franchise segment.

In 2021YE the Management and Franchise segment's ADR was $128 (+13% YoY), while the Ownership segment displayed a value of $172 (+6% YoY). During the second semester both segments registered a significant rebound, due to the greater ease of restrictions and seasonal effect that affect occupancy rate and so ADR (Figures 13,14,15).

Figure 16 - Hilton's RevPAR (2017 – 2021YE)



Source: Hilton's Quarterly Resutls

Revenues per Available Room (RevPAR)

One of the most important profitability metrics in the industry results as a product of the Occupancy rate and ADR (Appendix 2). It measures the performance over comparable periods for comparable hotels.

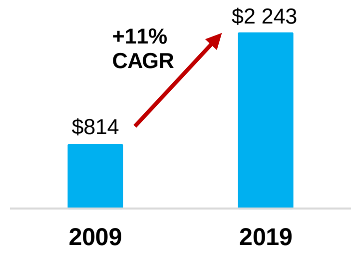
Mirroring the above metrics, RevPAR also presented steady levels before the pandemic in both segments and in 2020 it also significantly decreased to low levels. In 2021YE, this metric increased, with the Management and Franchise segment displaying a value of $74 (+60% YoY) and the Ownership segment presenting a value of $57 (+40% YoY) (Figure 16). Despite the considerable rebound, RevPAR did not reach 2019YE levels, and it is expected to fully recover by 2023 in both segments.

2.6 Growth Strategy

To continue growing, add value to its business, and become the preeminent global hospitality company – the first choice of guests and hotel owners, Hilton follows three premises:

A simplified fee-based business that allows extending the business with minimum or no capital investment, since the capital required to build and maintain hotels is provided by the third-party owner with whom Hilton has a contract to provide license for its intellectual property ("IP") or management services. In this sense, the asset-light strategy enables to increase the overall return on investment and liquidity to support business needs (Figure 17).

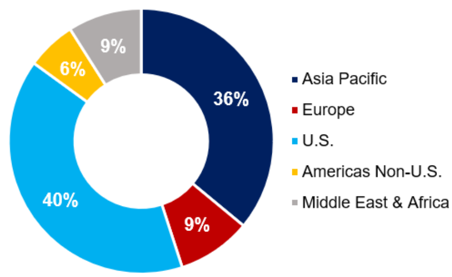
Figure 17 - Management and Franchise growth on a normalized basis (in $M)



Source: Hilton's May 2022 Investor

Develop a diversified pipeline worldwide to fill gaps with the right brand in the right location and at the right time. As of 31st March 2022, Hilton had 2,730 hotels in its developing pipeline, nearly all of them within the Management and Franchise segment with minimal Hilton capital investment - $300M and $50Bn of third-party investment. Furthermore, the pipeline has a special focus in high-growing regions, such as the Asia Pacific (Figure 18).

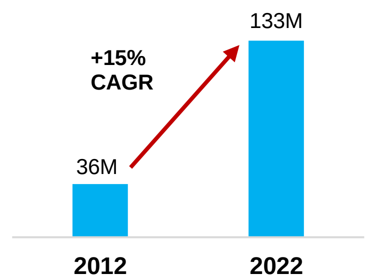
Figure 18 - Pipeline by geography



Souce: Hilton's May 2022 Investor Presentation

Win on customer experience by strengthening brands and commercial customer platforms. Hilton aims to maximize the relevance of its existing brands

Figure 19- Hilton Honors Members (in M)



Source: Hilton's May 2022 Investor Presentation and strategically add new brands to increase global RevPAR premium. Moreover, through its loyalty program – Hilton Honors, the company continuously develops innovative new features and partnerships, such as becoming the first loyalty program to enable its members to use their points on Amazon.com. In this way, the company expects to create deeper loyalty and increase direct bookings (Figure 19).

2.7 Shareholder Structure

As of 6th July 2022, Hilton Worldwide Holdings Inc. has 278,331,690 ordinary shares, in the NYSE, under the ticker "HLT".

There is a single class of voting stock, and all shareholders are entitled with one vote for each share of common stock held.

With a free float of 98.26%, 97.93% of the company ownership is held by institutional shareholders, in which the highest share position belongs to The Vanguard Group with 9.23% of shares (Table 4). The directors and executive officers detain 2.2% of the share capital, with emphasis to Christopher J. Nassetta, President and CEO with 4,108,438 shares, representing 1.5% of common stock outstanding.

Table 4 - Hilton's Top 10 Shareholders

Name	Investor Type	Nº of Shares	%
The Vanguard Group, Inc.	Investment Advisor/Hedge Fund	25,683,918	9.23%
Fidelity Management & Research Company LCC	Investment Advisor	14,159,319	5.09%
Capital Research Global Investors	Investment Advisor	13,494,051	4.85%
BlackRock Institutional Trust Company	Investment Advisor	13,327,419	4.79%
Capital International Investors	Hedge Fund	11,697,326	4.20%
State Street Global Advisors (US)	Investment Advisor/Hedge Fund	10,586,623	3.80%
Pershing Square Capital Management	Hedge Fund	9,952,287	3.58%
T. Rowe Price Associates, Inc.	Investment Advisor	8,653,532	3.47%
Principal Global Investors (Equity)	Investment Advisor	8,585,494	3.08%
Eagle Capital Management L.L.C	Investment Advisor	6,502,552	2.34%

Source: Refinitiv Eikon, May 2022

2.8 Dividend Policy and Share Repurchase

In 2017, Hilton initiated a stock repurchase program to return value to its shareholders and up until 2020 the company had paid a regular quarterly cash dividend of $0.15, per share. However, in March 2020, both the shares repurchase ($2.2Bn remained available) and dividend payment were suspended to preserve the company's liquidity position in response to the Covid-19 pandemic. In March 2022, the board of directors authorized the resume of the shares repurchase[3], and in May the $0.15 quarterly cash dividend to be paid in 2Q2022, along with its intention to continue the regular payments of quarterly cash dividends in the future.

3. Management and ESG

3.1 Corporate Governance

Hilton follows an Anglo-Saxon model. The BoD supervises the management of the business, acts as the ultimate decision-making body, except in matters reserved to or shared with shareholders and exercises direct oversight of strategic risks to the company, with the support of three standing committees that are fully independent (Table 5):

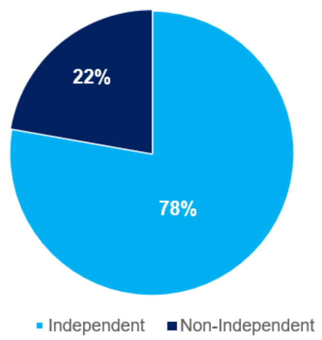
Audit Committee (3 members) oversees the integrity of the company's financial reporting processes and statements, evaluates the internal and external audits, amongst other duties.

Table 5 - 2022 Board and Committee Composition

Name	Audit Committee	Compensation Committee	Nominating & ESG Committee
Christopher J. Nassetta			
Jonathan D. Gray			
Charlene T. Begley	Chair		Member
Chris Carr			Member
Melanie L. Healey		Member	
Raymond E. Mabus, Jr	Member		
Judith A. McHale		Chair	
Elizabeth A. Smith			Chair
Douglas M. Steenland	Member	Member	

Source: 2022 Hilton's Proxy Statement

Figure 20 - 2022 Proportion of Independent Directors in the Board



Source: 2022 Hilton's Proxy Statement

[3] In March 2022, Hilton repurchased 907,000 shares of common stock for approximately $130 million and 1.8 million shares for approximately $265 million in April.

Compensation Committee (3 members) provides guidance in compensation matters, including the remuneration of Hilton's executive officers.

Nominating & ESG Committee (3 members) recommends the composition of the board and oversees the company's strategy, practices, and policies towards sustainability.

There is no policy on whether the roles of the Chair and CEO should be separate or combined. Currently, the BoD considers separation as the most appropriate leadership structure.

The 2022 elected BoD is led by the lead independent director Mr. Steenland, who among other responsibilities serves as a liaison between the CEO, independent and non-management directors; and Mr. Gray, the Non-Executive Chair, who oversees the board. In total, the BoD consists of nine members: the Non-Executive Chair, President and CEO, Lead Independent Director plus other six independent directors, with an overall average age of around 62 years, 44% of female directors, 22% of ethnically diverse directors and 5.9 years on average of tenure experience in position (Figure 21).

3.2 Executive Compensation

The Compensation Committee structures the Executive Compensation Program with the advice of its independent compensation consultant as well as the support from the company's management team. This program is directly linked to the company's performance and aligned with the management and stockholders' interests and results in a combination of cash and equity-based components: Base Salary, Annual Cash Incentives, Long-term incentive ("LTI") plus Other benefits, and perquisites (Appendix 4) that applies to Named Executive Officers (NEOs), namely:

- Christopher J. Nassetta, President & Chief Executive Officer;
- Kevin J. Jacobs, Chief Financial Officer & President, Global Development;
- Matthew W. Schuyler, EVP & Chief Brand & Communications Officer;
- Kristin A. Campbell, EVP, General Counsel & Chief ESG Officer;
- Christopher W. Silcock, EVP & Chief Commercial Officer;

For FY2021, 94% of the CEO's total target compensation was performance based and at-risk (Figure 22), whereas for the other NEO's this figure was on average 82% (Figure 23). Performance metrics included FCF per share, Adjusted EBITDA, Net Unit Growth ("NUG") CAGR and RevPAR index ("RPI") growth. Christopher J. Nassetta's total compensation amounted to $23,285,248 of which 79% corresponded to LTI in form of stock options and option awards - $13,706,216 and $4,568,720, respectively (Appendix 5).

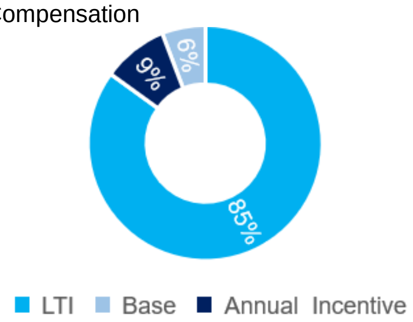
3.3 ESG

Launched in 2018 "Travel with Purpose 2030 Goals" is Hilton's strategy to drive responsible travel and tourism globally, which is aligned with the United Nations Sustainable Development Goals ("SDGs"). This program encompasses **Hilton's operations** that preserve resources in all hotels, **Hilton's communities** that promote inclusive economic opportunities for all and protect the environment and **Hilton's supply chain** that ensures responsible sourcing business and the protection of human rights. LightStay, Hilton's award-winning ESG measurement

Figure 21 - Board Diversity

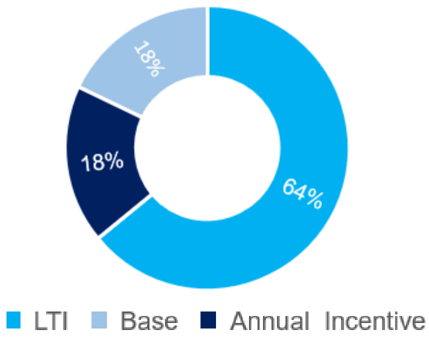
Source: 2022 Hilton's Proxy Statement

Figure 22 - 2021 CEO Target Compensation



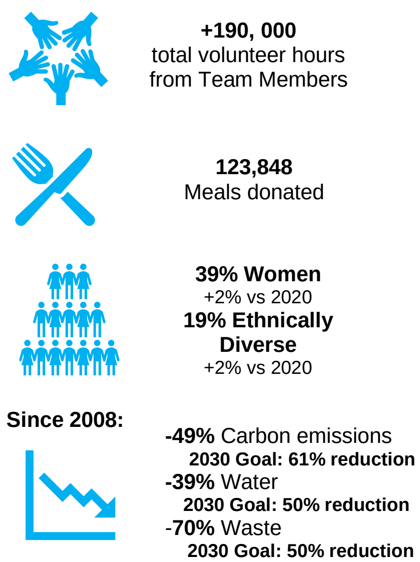
Source: 2022 Hilton's Proxy Statement

Figure 23 - 2021 Other Neo's target Compensation (Average)



Source: 2022 Hilton's Proxy Statement

Figure 24 - 2021 ESG Highlights



Souce: Hilton 2021 ESG report

and management platform is used in all hotels to track the progress against the 2030 Goals (Figure 24).

At industrial level, throughout the years Hilton has been demonstrating leadership across ESG pillars earning distinct recognitions:

- Member of the Dow Jones Sustainability Indices for the 5th year in a row;
- 2022 Gold Class distinction in the S&P Global Sustainability Yearbook;
- Named to Newsweek's list of Americas Most Responsible Companies;
- Ranked #1 in DiversityInc's Top 50 Companies for Diversity – part of the list for 7th year in a row;
- The only hotel brand named to 3BL Media's 100 Best Corporate Citizens List;
- Named a Trendsetter in political disclosure and accountability on the CPA-Zicklin Index;
- #1 Best Big Company to Work for in the U.S., #1 Best Workplace for Women in the U.S., and #3 World's Best Workplace by Great Place to Work Institute (GPTW) and Fortune Magazine.

Furthermore, according to Refinitiv Eikon, Hilton's ESG score is 81 out of 100 points, (Table 6).

4. Industry Overview and Competitive Positioning

4.1 Industry Structure

The Hotel industry is mainly focused on accommodation, however it can also offer other goods and services that are part of the broader hospitality industry, such as: food & beverage and event planning.

The $360Bn hotel industry is classified as a market with monopolistic competition (many hotels) and oligopoly characteristics (high barriers to enter).

US is the largest market (Figure 25) with three out of the five top branded hotel groups[4] belonging to this region, namely: Marriott International Inc., Hilton Worldwide Holdings Inc. and Wyndham Hotels & Resorts Inc. Together, the top 5 branded hotels account for 24.3% of the market share in 2021 (Figure 26).

Furthermore, the hotel industry can be categorized by price levels – which ranges from Luxury Segment to Economy Segment (Figures 27), being the high-end segments the most differentiated in offerings.

4.2 Industry Trend

Digital transformation

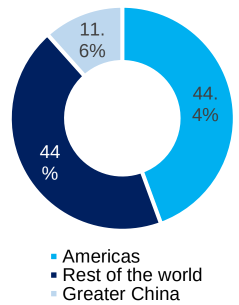
In the last few years, the industry has become more technologically based, with contactless services gaining momentum since 2020 due to the pandemic. The implementation of new technology has improved the efficiency of the hotel's operations and the customer experience.

Table 6 - ESG metrics score (out of 100)

ESG combined score	
Industry Rank	**4th**
ESG Score	**81**
Environment	**93**
Resource Use	93
Emissions	97
Environmental Innovation	70
Social	**72**
Workforce	85
Human Rights	69
Community	92
Product Responsibility	56
Governance	**83**
CSR Strategy	86
Management	89
Shareholders	61

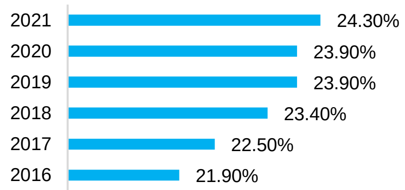
Souce: Refinitiv Eikon, May 2022

Figure 25 - Geography, by % of room revenue



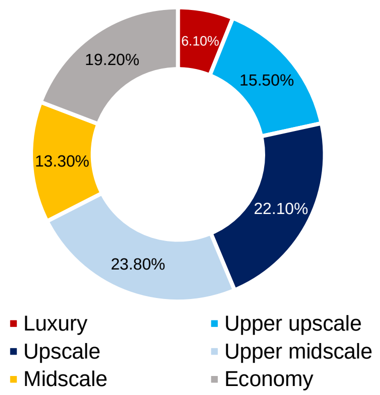
Source: IHG Annual Report, 2021

Figure 26 - Share of the top 5 branded hotels as % of global rooms supply



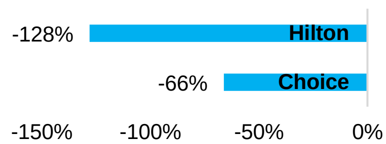
Source: IHG Annual Report, 2021

Figure 27- Hotel Industry by price levels



Source: IHG Annual Report, 2021

Figure 28 - Hilton vs Choice Hotels (strictly asset-light model) EBIT percentage change from 2019 to 2020



Source: Reuters, 2022

[4] The top five branded hotel group as % of global rooms supply are: IHG, Marriott international Inc., Hilton Worldwide Holdings Inc, Wyndham Hotels & Resorts Inc., Accor S.A.

Sustainability

There has been a growing concern towards ESG standards amongst stakeholders. Therefore, companies have been developing sustainability programs aligned with the United Nations SDG's goals, investing more in matters such as gender equality, food waste, and carbon emissions.

The 2022 Booking's.com Sustainable Travel Report [5]highlights that 78% of global travelers intend to stay in a sustainable property at least once within the next year and 50% of global travelers mention the growing desire towards more sustainable options in light of the recent news about climate change.

Asset-Light Strategy

In recent years, companies have been shifting from an asset-heavy to an asset-light business model. This strategy enables companies to grow faster, with lower capital investment and risks related to owning the hotels. For example, in periods of economic downturn, hotels following this model are able to mitigate some of its effects since they do not have to bear high fixed costs related to owning hotels (Figure 28).

4.3 M&A Activity

To survive and grow in the fierce competitive industry, some hotels choose to merge with or acquire their peers. This allows the companies to build a stronger portfolio and to improve organizational effectiveness, therefore establishing a competitive advantage in the market. Throughout the years, the number of M&A deals and their value had been relatively steady (Figure 29). However, in 2020, due to the pandemic, investors were forced to hold on to their liquidity positions and therefore suspend their investment operations. This led to a significant halt in M&A deals (-37% YoY).

In 2021, there was a rise in M&A deals, boosted by the need for smaller, independent hotels to join more well-established hotels in order to overcome the effects of the lockdowns. This rise is expected to remain in 2022 and beyond, thanks to the challenges fueled by COVID-19, continuous competitive environment, increase in digital automation, among other factors. The first quarter of 2022 has already experienced an increase in the number of deals compared to the homologous period (+27% YoY).

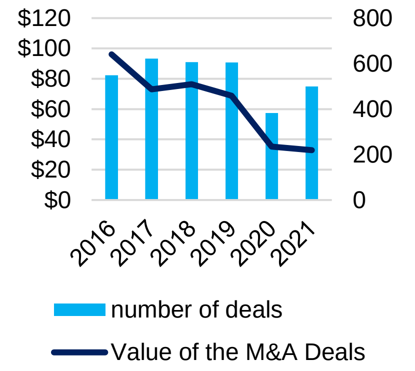
4.4 Demand drivers

From 2017-2019 the hotel industry's revenues grew at + 2.2% CAGR. In 2020 the industry presented an all- time low revenue ($140.2Bn, -61.2%YoY) due to the pandemic which highlighted the sectors' cyclicality (Figure 30).

However, in 2021, with the gradual ease of restrictions and vaccination rollout, the industry reached $200.50Bn in revenue. For the upcoming years, revenues are projected to reach $300.30Bn in 2022 and $485Bn in 2026, with a CAGR 2022-2026 of 12.7%.

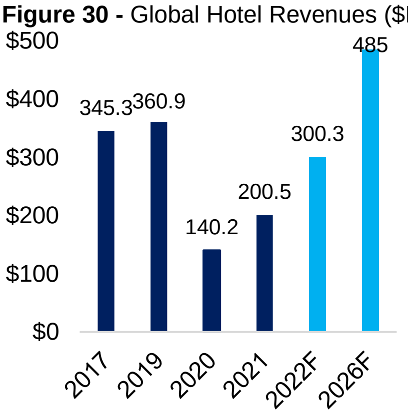
Regarding RevPAR, in 2021, US, Asia Pacific and Europe did not reach pre-pandemic levels (Figure 31). Nevertheless, according to STR and Tourism

Figure 29 - Number and value of the M&A deals in the Hotel Industry, worldwide



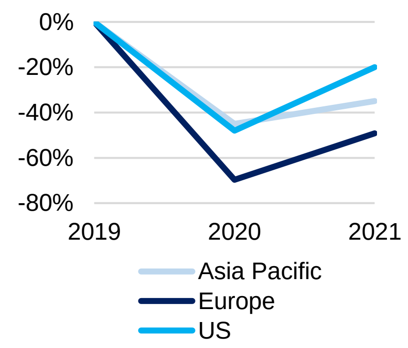
Source: Bloomberg, April 2022

Figure 30 - Global Hotel Revenues ($Bn)



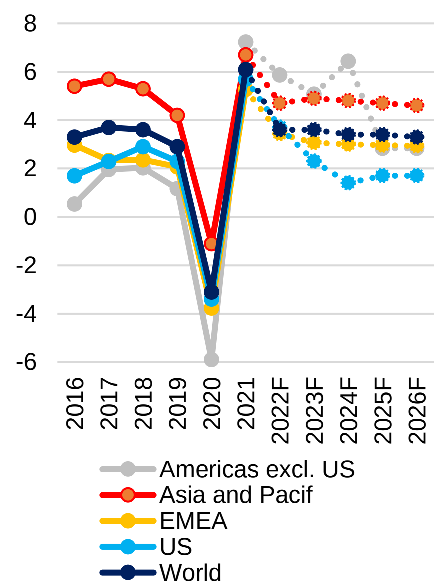
Source: Statista, 2022

Figure 31 - RevPAR by region 2019-2021



Source: Fitch Ratings, 2022

Figure 32- Real GDP Growth (Annual percentage change)



Source: IMF, April 2022

[5] This report highlights insights of 30 000 travelers across 32 countries and territories.

Economics, on a nominal basis, RevPAR is expected to exceed pre-pandemic levels in 2022, however full recovery when adjusted for inflation is only projected in 2024.

4.4.1 Economic outlook

GDP and Inflation Rates

During 2016-2019, the Global Real GDP faced a growth deceleration, with a GDP growth rate reducing from 3.3% in 2016 to 2.9% in 2019. In 2020, all regions experienced all-time low levels triggered by the Covid-19 pandemic (Figure 32).

Vaccination rates, macroeconomic support and the reopening of contact-intensive activities led to a recovery, although uneven across different economies, with 2021 Real GDP growth rates of 5.3%; 7.2%; 6.7%; 5.7% in EMEA, Americas excluding US, Asia and Pacific and US, respectively (IMF, April 2022).

According to IMF projections (2022), the global real GDP growth is expected to deteriorate in 2022 due to Russia's invasion of Ukraine. In a climate of pandemic-recovery, the economic damage from the war will result in a significant toll on global growth, with fuel and food prices leading to a large increase in inflation. The global real GDP growth is therefore projected to be 3.6% in 2022 and 2023, with Europe being one of the most affected regions (IMF, 2022). For the period of 2024-2026, the GDP growth rate is forecasted to decline, reaching a value of 3.3% in 2026.

Regarding inflation, the US reached the highest rate in May 2022 – 8.6%, since 1981 (Figure 33), along with the Euro Area that also hit its highest level – 8.1%, since the creation of euro currency in 1999 (Figure 34). This rise in inflation rates, which leads to an increase in costs of flights and hotels, is becoming the main reason for people not to travel, according to STR. IMF projects inflation in the US and Euro Area to stabilize at around 2% and 1.8%, respectively, between 2023 and 2026.

Household disposable income (HDI)

An increase in household disposable income results in families having more funds available to spend on goods and services, such as leisure travels. Figure 35 shows that HDI in OECD countries has been increasing throughout the years.

In 2020, despite the increase in HDI, there was a significant drop in household spending (Figure 35), due to Covid-19 restrictions that kept people at home.

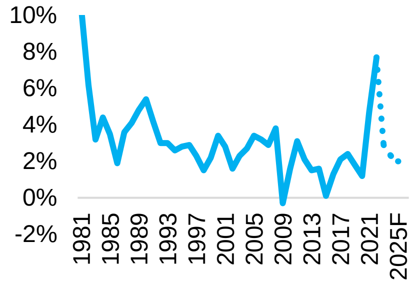
The impact of the war in the Ukraine has resulted in an increase in prices of commodities that have pushed up global consumer price inflation. Hence, this increase is likely to squeeze the HDI spend on non-essential expenses such as travels.

Global corporate profit

Figure 36 shows that corporate profits have fluctuated over the years, particularly in periods of recession - during the financial crisis of 2008 and the pandemic.

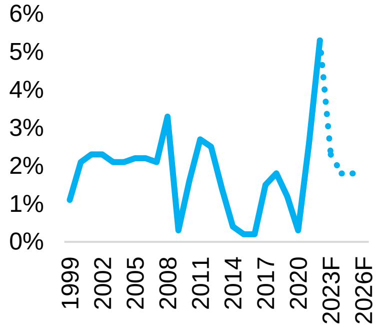
Corporate profits are a driver of business travel in the short term. As such, an increase in these can lead to a rise in business spending - e.g., in 2009-2010 (Figure 36). Nevertheless, a rebound of corporate profits from 2021 is expected to result in a slower business travel growth, due to the wider use of technology tools such as video conferences that have been replacing more and more this

Figure 33 - US Inflation Rate, Average Consumer Prices (Annual percentage change)



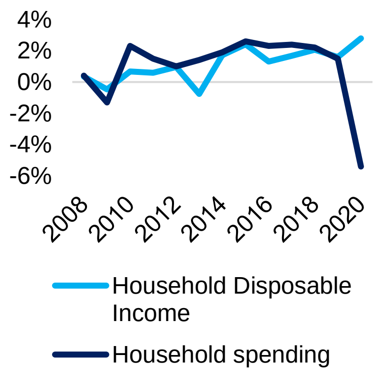
Source: IMF, April 2022

Figure 34 - Euro Area Inflation Rate, Average Consumer Prices (Annual percentage change)



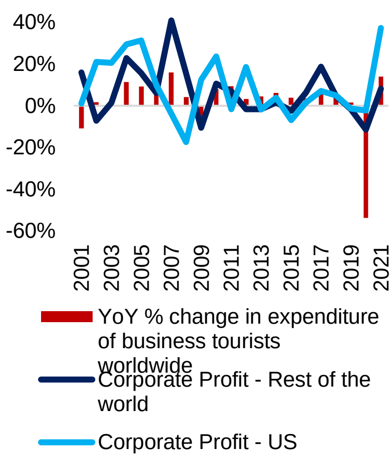
Source: IMF, April 2022

Figure 35 - HDI vs. Household spending for OECD area (Annual percentage change)



Source: OECD, April 2022

Figure 36 - Annual % change of global corporate profit after -tax for US and rest of the world vs annual % business tourism spending worldwide



Source: FRED and Statista, 2022

type of travels since the pandemic. According to Oxford Economics, domestic business spending is recovering faster, while international business spending is only expected to return to pre-covid levels in 2026.

4.4.2 World Population

The population growth, particularly the expanding middle class with a desire to travel, is an important driver for hospitality services' growth.

During 2016-2021, the world population grew at a CAGR of +1.04%, reaching 7.723 Bn in 2021. According to IMF, for the upcoming years, it is expected a CAGR 2022-2026 of +0.96%, where EMEA is the region with the highest growth (+1.54% CAGR 2022-2026). By 2026, the world population is expected to reach 8.102 Bn (Figure 37).

4.4.3 Travel & Tourism (T&T)

T&T is a key driver for hotels' demand as it boosts domestic and international mobility and visitor spending. It is also highly correlated with macro-economic factors, being one of the most affected industries by crises such as the pandemic.

From 2000 to 2019, international tourist arrivals grew at a CAGR of 4.12%. However, as a result of travel restrictions, in 2020, 1B fewer international tourist arrivals were registered (-73% YoY) (Figure 39), resulting in a fall of an unprecedented 69.4% in international visitor spending, whereas domestic visitor spending decreased by 45% (Figure 38). In 2021, there was a slight recovery of international arrivals of +3.78%YoY, notwithstanding, UNWTO predicts that arrivals are only expected to fully recover by 2023 (Figure 40). Regarding visitor spending growth, while in 2021 domestic spending (+31.4%YoY) overtook international spending (+3.8%YoY), in 2022, WTTC projects that domestic spending (+24.3%YoY) will continue above pre-pandemic levels, however it will lag international spending (+93.8%YoY), as further destinations ease restrictions and vaccination rates continue to rise.

Moreover, it is relevant to highlight the importance of the sector in socio-economic matters such as job creation, poverty reduction, and driver of prosperity and diversity.

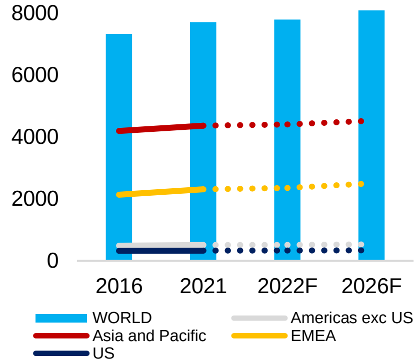
4.4.4 Safety and Security

Terrorist attacks (e.g.: Paris attacks 2015), wars, natural catastrophes, and worldwide pandemics such as COVID-19 negatively impact the occupancy rates in hotels.

According to STR, in 2020, the travel restrictions and the stay home rules led to the US hotel industry surpassing 1B unsold room nights, an unparalleled result which eclipsed 786M unsold room nights during the 2008 Recession

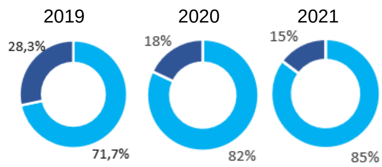
Nowadays, the war between Russia and Ukraine has affected the hospitality industry in several ways, being the travelers' confidence one of them when visiting countries such as Poland and Turkey.

Figure 37 - World Population (in M of people)



Source: IMF, 2022

Figure 38 - Domestic vs International Spending

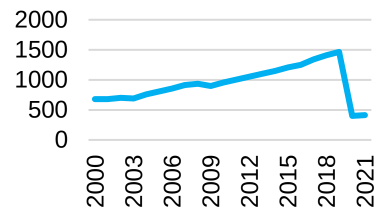


Domestic Spending
2019 = $ 4.295 B
2020 = $ 2.360 B
2021 = $ 3.101 B

International Spending
2019 = $ 1.691 B
2020 = $ 518 B
2021 = $ 537

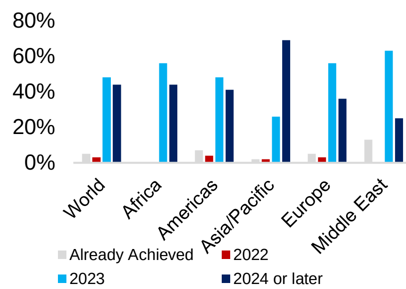
Source: WTTC, 2022

Figure 39 - Number of International Tourists Arrivals (in M)



Source: Statista, 2022

Figure 40- Global Survey among UNWTO Panel of Tourism Experts on the impact of Covid-19 and the expected time of recovery as of May 2022



Source: UNWTO, 2022

"Toursim has suffered after the attacks - hotel occupancy in Paris this year through Septermber was down 11%, compared with the same period in 2015"
Source: The New York Times

"Spain and Porugal hotel prices rise for Easter holidays as Ukraine war puts tourists off Greece and Turkey",
Source: iNews, April 2022

"Hotels in Atlanta city are tripling room rates as they prepare for than 70, 000 fans to arrive for Sunday's matchup between the Los Angeles Rams and the New England Patriots",
Source: Wall Street Journal, 2019

4.4.5 Others

Other relevant factors impacting demand are: location of the hotel (i.e.: proximity to major tourist attractions); events being held in the hotel area; existence of airport/railway/cruise ports infrastructures; amongst others.

4.5 Supply drivers

The number of hotels/rooms worldwide represents the supply in hotel industry. Considering that hotels are not a flexible asset; the sizable investments required to build and maintain them; the difficulty to find a location and to get a license to build the hotel, supply is considered inelastic. During the period 2016-2021, supply presented a CAGR of only +2.12% (Figure 41).

Additionally, the industry is fragmented, with total branded hotels representing a significant portion of global room supply - 54% as of 2021, with an expected increase to 77% in future years, taking into account active pipeline (Figure 42).

4.6 Price

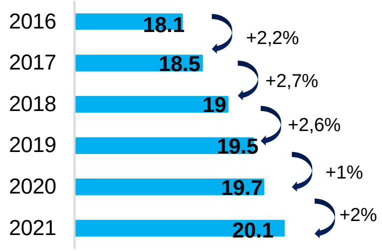
The hotel industry prices vary throughout the year due to several elements, including seasonality effects and macro-economic factors. Figure 43 shows that for instance in Europe prices are higher in the summer months. The same occurs in the Americas however, not with the same intensity. This is caused by both climate effects, where seaside destinations are marked by most sales being made in the summer, and institutional factors, which result from decisions made at national level, school calendar and holidays. In 2019, between June and September, the average price in Europe was $140.6 and in Americas, $132.6. Whereas in periods of low demand (e.g., January and February), the prices averaged $114.5 in Europe and $127 in Americas. In 2020, this trend was disrupted due to the restrictions affecting international and domestic mobility, which obliged hotels to lower their prices. In 2021, the ease of the measures against the Covid-19 triggered higher demand for hotels, consequently increasing prices. These, however, did not reach pre-pandemic levels and are expected to exceed pre-pandemic levels in 2022 and by 2024 when adjusted for inflation, according to STR and Tourism Economics, similarly to RevPAR.

4.7 Porter's 5 Forces

Bargaining power of Suppliers - Medium (3)

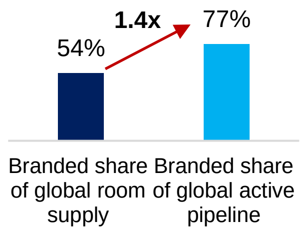
The bargaining power of suppliers can vary depending on their different functions. There is a high volume of suppliers of goods in the market, for instance, of F&B, raw materials, room facilities, and cleaning materials. However, suppliers that exercise power over hotels are the labor market, which is in great demand in the Hotel Industry (Cheng, 2013), and intermediaries, such as Tripasvisor.com and Booking since they are important sources of exposure. For instance, in the US, OTA accounts for 51% of online hotel bookings (Figure 45), which highlights the hotel's dependence on these and their power to negotiate higher commissions.

Figure 41 - Global Rooms Supply (M rooms)



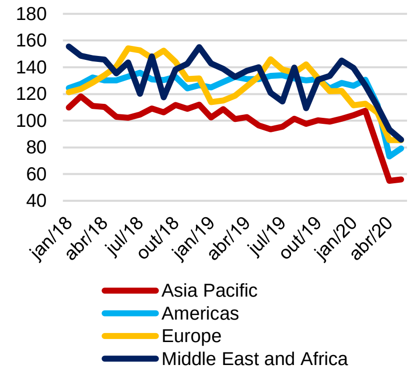
Source: IHG Annual Report, 2021

Figure 42 - Branded Share of global industry supply and active pipeline growth



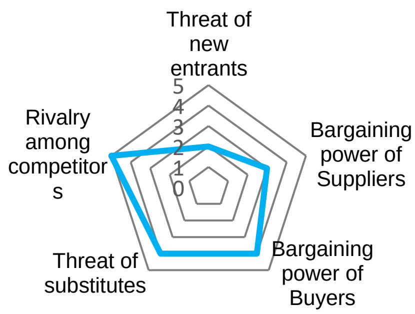
Source: IHG Annual Report. 2021

Figure 43 – Monthly ADR worldwide from 2018 to 2021, by region (in $)



Source: Statista, 2020

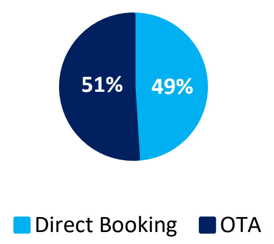
Figure 44 - Porter's 5 Forces



Legend: Scale of 1 (lower treat to industry profitability) to 5 (higher treeat to industry profitability)

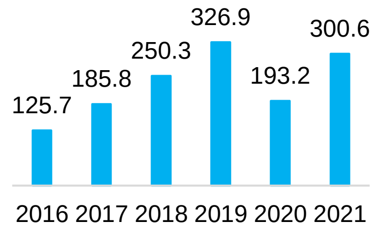
Source: Author's Analysis

Figure 45 - US % of Direct Booking vs % of OTA



Source: CoStar, 2021

Figure 46- Nights and experiences booked at Airbnb (in M)



Source: Airbnb Annual reports

Bargaining power of Buyers - Medium-High (4)

With many price comparing tools and room booking platforms available online, a hotel guest who is price sensitive can easily compare and find the most cost-effective choice. The low switching costs, the sizable supply of hotels with homogeneous services, plus the ability for customers to review their hotel experiences, results in a high guests' bargaining power. However, for niche markets at special locations, where supply is limited, the power of customers is low.

Threat of new entrants - Medium-low (2)

There is a high initial capital expenditure required to start a business in the hotel industry, a high proportion of fixed costs to maintain the business and a difficulty in establishing a strong loyalty program or to market brands in the competitive market environment. These pose as an obstacle for new entrants in the industry.

Threat of substitutes - Medium-High (4)

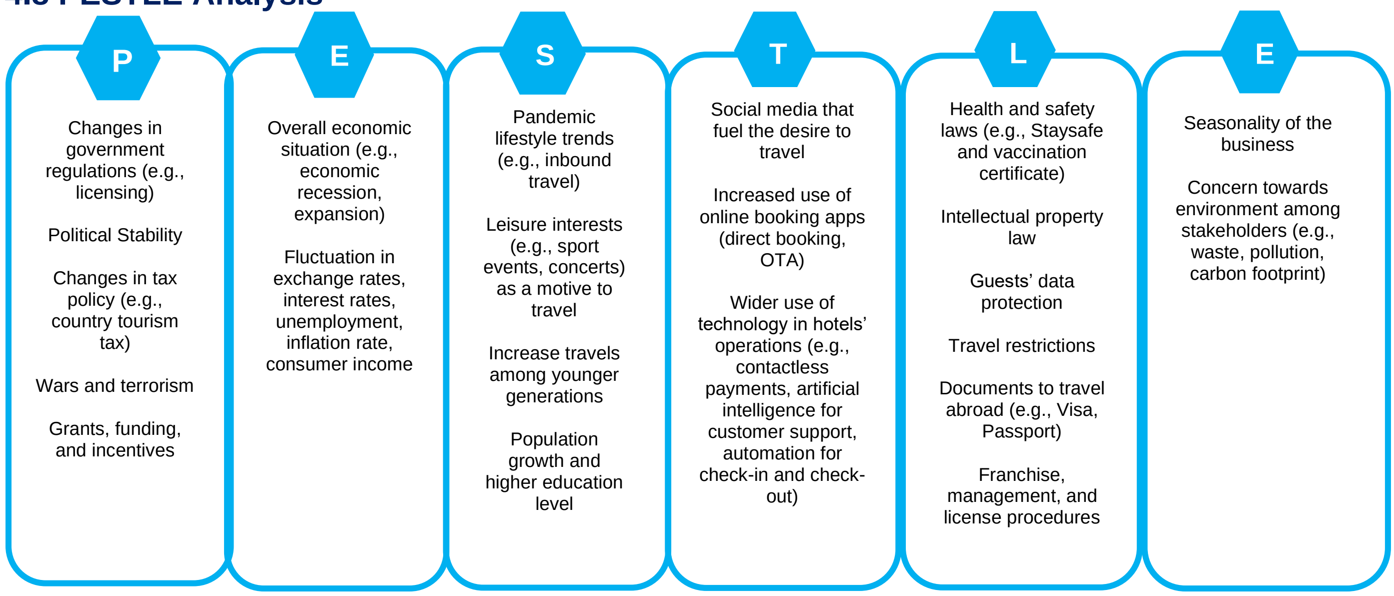
The threat of substitutes is medium-high for many reasons. As a result of the COVID-19 pandemic, online communication platforms (e.g., Zoom) have allowed people to substitute business travels for online meetings, directly impacting business-type hotels. These online tools are considered a great substitute as they allow for cost reduction, better management of employee time and environmental sustainability.

Moreover, other accommodation options such as Hostels and Airbnb (Figure 46) have been growing in popularity throughout the last few years. This represents a significant threat, particularly to the low and mid-range hotels and motels.

Competitive rivalry between existing players - High (5)

With a large number of hotels all round the world and low differentiation between them, the competitive rivalry among existing players is high. Furthermore, the customers' low switching costs and high fixed costs faced by hotels amplify the competitive atmosphere in the industry (Cheng,2013).

4.8 PESTLE Analysis



4.9 Peers Identification

Hilton's peer group was selected taking into consideration the 30 companies part of the BICS classification from Bloomberg and the SARD's approach developed by Knudsen et al. (2017). To apply this model, we considered the EBIT margin and ROC as a proxy for profitability, Market Capitalization as surrogate for size, Current ratio as a liquidity measure and Net Debt to EBITDA as a substitute for risk. Afterwards, the companies were ranked against each other according to the lowest SARD's score and only the top 5 with a focus on accommodation were considered as the peer group: InterContinental Hotels Group PLC ("IHG"), Marriott International ("MAR"), Accor ("AC FP"), Wyndham Hotels & Resorts ("WH") and Choice Hotels International ("CHH") (Table 7 and Appendix 27).

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Table 7 - Peers identification through the SARD's model

Ticker	SARD	Focus on Accommodation
IHG	17	✓
MAR	18	✓
TNL	28	✗
AC FP	28	✓
WH	29	✓
CHH	33	✓

Source: Author's Analysis

4.10 Peers Strategy

The hotel industry is cyclical and highly competitive, where volatility remains a factor. In the short-term, companies are focused on the return to pre-pandemic levels and try to understand and respond to the challenges imposed by the Ukraine-Russia conflict, while still investing in growth. Sustainability, digital innovation and expansion through organic growth and acquisition are some of the strategies most shared in the industry.

- **Marriott International, Inc.** is the world largest hotel chain, with nearly 8,000 properties, 1,429,171 rooms in 139 countries. The company focuses its business on luxury, premium and selected segments, having the largest pipeline of the industry in the luxury segment, with 50,000 rooms as of December 2021. Its growth strategy entails maintaining and attracting third-party owners and franchisees globally to its platform.
- **Wyndham Hotels & Resorts** is the largest hotel franchisor worldwide. The company has three key priorities **1)** Drive net room growth of 2-4% in the direct franchise segment and expand its portfolio to include an economy extended stay brand. **2)** Increase owners' profitability by optimizing property revenue, maximizing market share, reducing on-property labor and operating costs through digital innovation. **3)** Simplify the business model by exiting the select-service management service and selling the two owned hotels to focus the resources on the asset-light franchise business.
- **Choice Hotels** is the only lodging company with approximately 100% of franchised and with no managed properties. A key component of the company's strategy is to create franchise system growth in each of the strategic segments (Extended Stay, Midscale, Upper Midscale, Upscale) and strengthen marketing, reservation systems and franchisee tools to reduce operating costs and improve profitability. Furthermore, Choice Hotels is also focused on expanding its strategic partnerships with travel related providers to drive incremental revenues and deliver value-added solutions to hotel owners and guests.
- **InterContinental** aims to deliver high-quality industry-leading net rooms growth. Its strategy is underpinned by the investment in four pillars: brands, people, systems, and scale that drive growth in the industry's

most valuable markets and segments and enhance a culture that embraces opportunities to positively impact the world.

- **Accor** is a leading hotel operator in Europe and Asia-Pacific (excluding China). The company plans to step up growth through an asset-light model and organic acquisitions. Geographically, it is focused on reinforcing its position in markets where it is already a leader, as well as in emerging markets, namely: Middle East, Southeast Asia and Sub-Saharan Africa, specifically in the most profitable segments (luxury, lifestyle, resorts and residential).

4.11 Swot Analysis

S

Global presence, with 6,837 properties in 122 countries and territories

Diversified pipeline and asset-light model, 410K rooms under construction across all regions with minimal Hilton capital investment

Most valuable hotel brand in 2022, with a global brand value of $12Bn

Loyal customers, with over 128M members (+13% YoY) on its award-winning guest loyalty program, Hilton Honors

High Customer Satisfaction, according to American Customer Satisfaction Index (ACSI) Hilton was ranked first among its peers with a score of 79 out of 100

Leading the way to positively change the world, recognized with several ESG awards

W

Overdependence on the US market, 70% of system-wide rooms are concentrated in this region and 82% of total revenues were generated in the US, in 2021

High level of indebtedness, long-term maturities for years ending 2022,2023,2024 are $54 million, $26 million, and $26 million, respectively. These high levels can affect the financial position and ability to raise additional capital

O

Expansion in emerging markets such as Asia Pacific (China), 36% of the developing pipeline belongs to this region

Increase presence in social media, a post in a platform such as Instagram can create the desire for a stay and reduce advertising costs

Create strategies and partnerships for hybrid events, a new way to retain business travelers

T

Highly dependent on macroeconomic indicators (cyclical business), an economic crisis negatively impacts key indicators (GDP, HDI, etc.,) that decrease consumers' budget to spend on holidays/hotel stays

Cyber risk, data breach's such as the one faced by Hilton in 2019 can result in heavy fines

Fierce Competition, from hotel chains with a strong market presence (Marriott, IHG, Hyatt, etc.), but also other accommodation options with increasing growth, such as Airbnb

Change in consumers' behavior and preferences

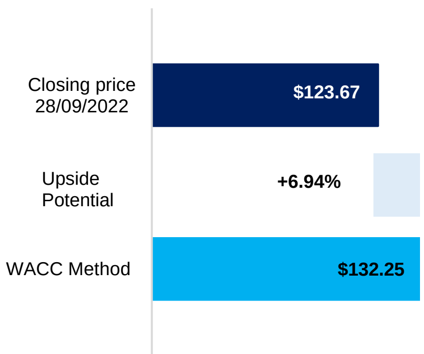
Exchange rate fluctuations can negatively affect Hilton's financial results

Pandemics and wars can affect international and domestic mobility, economic indicators and so downturn Hilton's performance

5. Investment Summary

Hilton has a HOLD recommendation, with a PT of $132.25/share, using the DCF method, representing an upside potential of 6.94%, or a potential annualized return of 5.46%, against the closing price of $123.67 from September 28th, 2022, with a medium risk assessment (Figure 47). The current undervaluation of Hilton's stocks is mainly due to the consequences of the high inflationary period and uncertainty regarding the economic outlook driven mostly by the Russian war against Ukraine.

Figure 47 - Hilton 2023YE Price Target



Source: Author's Analysis

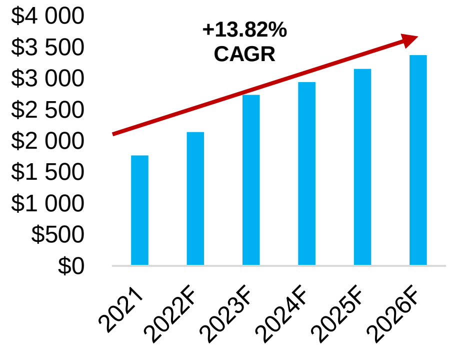
5.1 Key Drivers

The pent-up demand in tourism is expected to boost Hilton's RevPAR, with an expected full recovery to pre-pandemic levels in 2023 in both, the Ownership and Management and Franchise segments.

Hilton has a portfolio of 18 brands, the most valuable brand name in the industry, at $12Bn. This strong position leverages its mission of becoming a fully-fee based company, which enables business expansion with minimal requirements and flexibility under difficult times. The Management and Franchise segment revenues is expected to increase at +13.82% CAGR 2021-2026F (Figure 48).

The company also offers a stable return policy to its shareholders, paying a quarterly dividend of $0.15/share since 2017, which resumed in May 2022 and it is expected to be maintained. Furthermore, Hilton is also expected to execute the remaining 2.2Bn of its buyback program over the forecasted period.

Figure 48- Management and Franchise Revenues ($M)



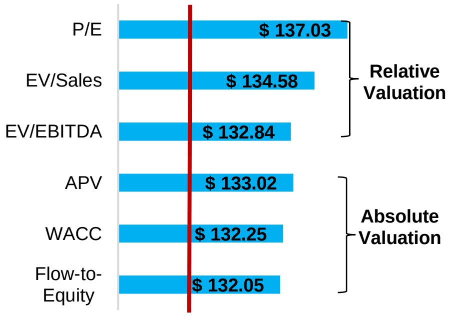
Source: Author's Analysis

5.2 Valuation Methods

The PT was computed using several absolute methodologies, namely the WACC, FTE and APV yielding similar results, ranging from $132.05 to $133.02.

To complement the analysis, a Relative Valuation was conducted using enterprise and price multiples, with the PT varying between $132.84-$137.03 (Figure 49).

Figure 49 - Valuation models PT vs Current Price on 28th September 2022 ($/share)



Price on 28th September 2022: $123.67

Source: Author's Analysis

5.3 Investment Risks

Several risks that can jeopardize the investment recommendation must be highlighted to Hilton's investors. The lodging industry is cyclical, as such it is highly sensitive to macroeconomic factors, geopolitical tensions and worldwide health crisis.

Despite the pent-up demand, the effect of Russia's ongoing conflict with Ukraine in the global economy can represent a significant risk to Hilton's business. The increasing price of commodities leads to a general rise in the price of products and services, including transportation and accommodation, which squeeze the overall HDI to be spent on non-essential services. On the other hand, the rising inflation also increases operating costs for Hilton, thus placing further pressure on the company's ability to generate profit. The inflationary period has also led the Federal Reserve to increase interest rates, which might increase the financial costs for the total debt without fixed rates and for any future loans that Hilton may incur.

Moreover, Hilton is also subjected to other market (e.g; fierce competition), economic (e.g.: fluctuations in exchange rate), operational (e.g.: cyber security), regulatory (e.g.: environmental risk) and financial risks (e.g.: indebtedness).

6. Valuation

6.1 Key Valuation Drivers

Revenues

Hilton does not disclose RevPAR, Occupancy rate and ADR by region under each segment. Therefore, the revenues for each of the segments were not computed by region. Additionally, the company does not present separate information about these metrics for Management and Franchise segments, as such these were considered equal for both segments.

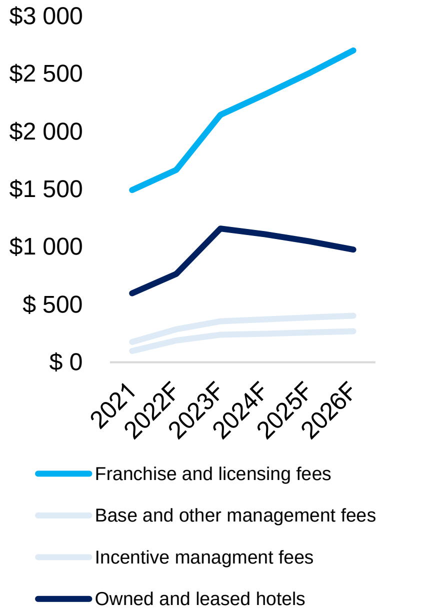
Total revenues are expected to grow at +16.97% CAGR 2021-2026F (Figure 50), resulting from RevPAR recovery and growth along with the increase in the number of rooms. Hilton's total number of rooms are projected to grow at +5% CAGR 2021-2026F, reaching 1,371,736 rooms in 2026F (Figure 51). According to STR and Tourism Economics, RevPAR will surpass pre-pandemic levels in 2022, however for Hilton the full recovery is estimated to happen in 2023, since during the first semester this metric was still significantly below pre-pandemic levels in both segments (Figure 52).

The Franchise and licensing fees are computed as the product between the number of rooms, RevPAR times 365 and the royalty rate. From this, we obtain the gross room revenue and then deduct the amortization contract cost. The number of rooms is expected to grow in accordance with the historical average of its added rooms to total added rooms (+89.89% 2018-2021), resulting in a +5.79% CAGR 2021-2026F; RevPAR will return to 2019 levels in 2023 and from there onwards it will follow the US inflation rate, since most of its rooms belong to that region (+9.39% CAGR 2021-2026F); Royalty rate charged in exchange for Hilton's IP is set at 5.91%, resembling its historical average; Amortization of contract costs are projected to remain stable during the forecasted period.

When managing a hotel, Hilton receives a 1) Base and other management fees, which are determined as the product between the number of rooms, RevPAR times 365 days and the base management fee rate. Afterwards, the intersegment elimination and the amortization of contract costs are deducted. For the forecasted period, the number of rooms will grow at +2.86% CAGR 2021-2026F, following the historical average of 11.99% of added rooms in this segment; RevPAR will follow the Franchising and licensing fees trend (+9.39% CAGR 2021-2026F); the management rate is projected to be stable at 4.18%; intersegment elimination is estimated as the historical average of 9.65% of Base and other management fees and amortization contract costs are projected to grow at +10.16% CAGR 2021-2026F. When applicable, Hilton also receives 2) Incentive management fees, which are computed though the historical average of 66.67% of Base and other management fees (+22.38% CAGR 2021-2026F).

The Ownership segment's revenues derive from 1) hotel room sales and 2) food & beverage and other ancillary revenues. 1) Hotel room sales are calculated as the product between number of rooms and RevPAR times 365 days. Due to the strategy of becoming a fully assert-light company, the number of rooms in this segment is projected to decrease (-7.08% CAGR 2021- 2026F), in accordance with its historical average of reduced rooms to total added rooms (-1.88% 2018-2021); RevPAR will recover in 2023 and afterwards will follow the European

Figure 50 - Forecasted revenues by segment ($M)

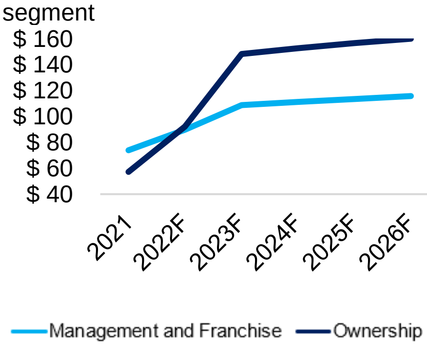


Source: Author's Analysis

Figure 51 - Forecasted number of rooms by segment

Source: Author's Analysis

Figure 52 - Forecasted RevPAR by segment

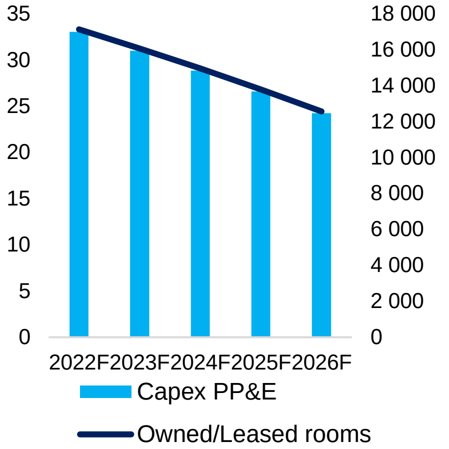


Source: Author's Analysis

inflation rate, since most of its rooms belong to this region (+22.84% CAGR 2021-2026F). 2) Food & beverage and other ancillary revenues will follow the historical average of 33.11% of hotel room sales (+5.98% CAGR 2021-2026F).

Furthermore, other revenues are expected to grow +10.22% CAGR 2021-2026F and other revenues from managed and franchised properties that correspond to costs related with supporting operations reimbursed by property owners to Hilton are expected to equal other expenses from managed and franchised during the forecasted period, which are calculated as the historical average of gross room sales of both, Franchise and Management segments (Appendix 8 and 18).

Figure 53 - Forecasted Capex PP&E vs number of Owned/Leased rooms



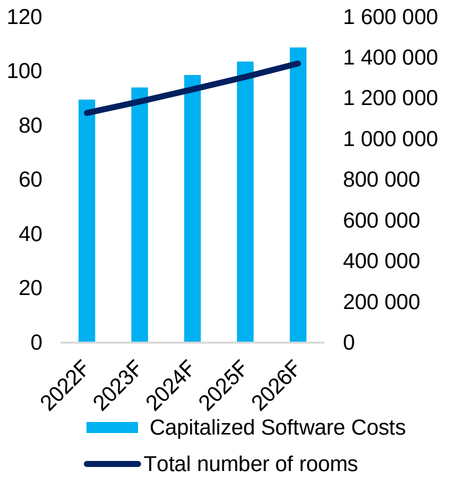
Source: Author's Analysis

Capex and D&A

For the forecasted period, Capex will increase at +10.99% CAGR 2021-2026F. Due to its strategy to expand the business through an asset-light model, the Property and Equipment Capex, which is mainly related with the maintenance of owned and leased properties is expected to decrease at -7.08% CAGR 2021-2026F, in accordance with the reduction of owned and leased rooms (Figure 53). On the other hand, the Capital Software Costs related to various system initiatives will grow in accordance with the total number of rooms and the historical average of Capital Software Cost to total rooms of 0.01%, since the investment in such area should increase with the expansion of the business (+19.85% CAGR 2021-2026F) (Figure 54 and Appendix 19).

Regarding D&A, which encompasses depreciation on property and equipment, amortization of other intangible assets and amortization of intangible assets that were recorded at the Merger (i.e. - in 2007, when Hilton became a wholly owned subsidiary of affiliates of Blackstone Inc.) is expected to be lower during 2022-2026F when compared to the historical figures. This lower value is mainly explained by the decrease of the amortization of finite-lived intangible assets recorded at the Merger, which are expected to reduce as the years pass by the Merger (-23% CAGR 2021-2026F).

Figure 54 - Forecasted Capitalized Software Costs vs Total number of rooms



Source: Author's Analysis

NWC

For the operating assets, Hilton's Working Capital is composed of accounts receivables; prepaid expenses; other; while, for the operating liabilities it encompasses accounts payable, accrued expenses and other; current portion of deferred revenues and current portion of liability for guest loyalty program. Throughout the years, this figure has been negative mainly due to the high portion of accrued expenses and other figure and in 2021 also due to the high value of the current portion of liability for guest loyalty program. In 2020, with the travel restrictions, Hilton had to extend some of the benefits provided by the loyalty program, including the period to use the Hilton Honors points.

For the forecasted years, the Working Capital will increase, nevertheless it will remain at a negative value. These operating items are estimated considering the historical average from 2017 to 2021, excluding 2020, since the industry is already on its pace of recovery from the atypical year triggered by the pandemic.

Table 8 - WACC Assumptions

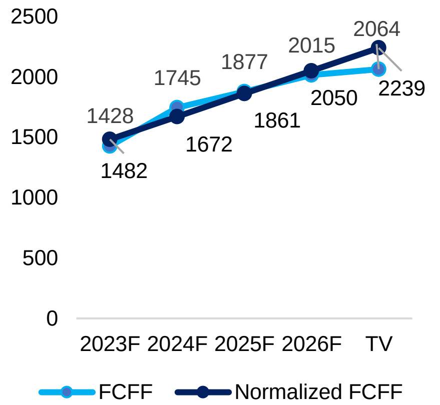
	2023F	Terminal
Ke	**8.27%**	**7.91%**
Rf	2.05%	2.05%
ERP	4.83%	4.83%
CRP	0.52%	0.52%
βL	1.16	1.09
After tax Kd	**2.96%**	**2.96%**
Pre-tax Kd	3.75%	3.75%
Tax rate	21%	21%
WACC	**7.18%**	**7.20%**
E/(D+E)	79.76%	85.73 %
D/(D+E)	20.54%	14.27%

Source: Author's Analysis

WACC rate assumptions

The cost of equity (Ke) was estimated by applying the CAPM. The model includes 1) a Rf of 2.05% corresponding to the normalized return of the 10-Year US

Figure 55 - FCFF vs Normalized FCFF



Source: Author's Analysis

treasury bond ; 2) Hilton has operations worldwide, therefore ERP and CRP were determined as the weighted average of 2021YE revenues in US and in all other regions. Thus, an ERP of 4.83% and a CRP of 0.52% were obtained; 3) The Beta (β) was computed by regressing the last 5-years monthly share price of Hilton against S&P 500. This resulted in a raw β of 1.24, which was then lowered through the Blume Adjustment to 1.16. To consider changes in the capital structure, the β was unlevered and then yearly levered. All in all, the cost of equity falls from 8.27% in 2023F to 7.90% in 2026F.

The cost of debt (Kd) of 3.75% was computed using the credit default spread method. Hence, to the Rf (2.05%) we added the CRP (0.52%) and the company default spread (1.18%). A tax rate of 21% corresponding to the US statutory tax rate was used to estimate the after-tax Kd.

A WACC (Table 8 and Appendix 23) ranging between 7.18% in 2023F and 7.20% in 20226F was obtained.

Terminal Value

In order to smooth the effect of the business cyclicality and provide the mid-cycle cash flow, a normalized FCFF for the terminal value was estimated through a linear regression over the forecasted period (Figure 55). Similarly, a normalized FCFE for the terminal period was estimated by using the average of the FCFE over the forecasted years.

Long-run sustainable growth rate

To estimate the terminal growth rate (g) different models were tested.1) The PRAT Model, which resulted in a g of 4.26%; 2) The Stable Growth Model, which yielded a g of 0.85%; 3) The average between the real GDP growth rate and the inflation rate of US and all other regions where Hilton operates as percentage of 2021YE revenues, which resulted in a g of 2.43% (Appendix 22).

Since typically the g falls between the historical inflation rate (1.5% -2.5%) and the real GDP growth rate (3.5%-4.5%), we selected the third approach – a 2.43% for the g.

6.2 Valuation Methods

To value Hilton in 2023YE a forecasted period of 5-years was considered, from 2022F-2026F. Moreover, to strengthen our investment recommendation absolute models were used, namely: WACC method, Adjusted Present Value (APV) and Flow to Equity (FTE), as well as a Market-Based Valuation.

WACC Method

Using a two-stage FCFF model, this approach yielded a PT of $132.25 for 2023YE, with an upside potential of 6.94%, against the closing price of $123.67 on September 28th, 2022 (Table 9 and Appendix 24).

Table 9 - WACC method PT

WACC Method	
(=) Enterprise Value ($M)	**42,983**
(-) Debt ($M)	8,766
(+) Cash & Equivalents ($M)	1,803
(-) Non-controlling interests ($M)	2
(=) Equity Value ($M)	**36,017**
Shares (#M)	272
Price Target ($)	**132.25**
Price 28/09/2022 ($)	123.67
Upside Potential (%)	**6.94%**

Source: Author's Analysis

Table 10 - APV method PT

APV Method	
(=) Unlevered Intrinsic EV ($M)	**39,753**
(+) PV (Tax Shield) ($M)	215
(+) PV Terminal Value (Tax Shield) ($M)	3,223
(=) Intrinsic EV ($M)	**43,192**
(-) Debt ($M)	8,766
(+) Cash & Equivalents ($M)	1,803
(-) Non-controlling interests ($M)	2
(=) Equity Value ($M)	**36,226**
Shares (#M)	272
Price Target ($)	**133.02**
Price 28/09/2022 ($)	123.67
Upside Potential (%)	**7.56%**

Source: Author's Analysis

Table 11 - FTE method PT

FTE Method	
(=) Equity Value ($M)	**35, 962**
Shares (#M)	272
Price Target ($)	**132.05**
Price 28/09/2022 ($)	123.67
Upside Potential (%)	**5.77**

Source: Author's Analysis

Table 12 - Relative Valuation

Enterprise Multiple	
EV/Sales	
HLT Sales ($M)	10,633
Peer's average (x)	4.10
EV by peer's estimates ($M)	**43,616**
Equity Value ($M)	**36,651**
Shares (#M)	272
Price Target ($)	**134.58**
EV/EBITDA	
HLT EBITDA ($M)	2,283
Peer's average (x)	18.89
EV by peer's estimates ($M)	**43,142**
Equity Value ($M)	**36,177**
Shares (#M)	272
Price Target ($)	**132.84**
Price Multiple	
P/E	
HLT earnings ($)	5.03
Peer's average (x)	27.25
Price Target ($)	**137.03**

Source: Author's Analysis

APV Method

By discounting the FCFF at the pre-tax WACC and by considering the effect of Debt through the Interest Tax Shield, this method resulted in a PT of $133.02, equivalent to an upside of 7.56%, when compared to the current price of $123.67 (Table 10 and Appendix 25).

FTE Method

Consistent with the above results, the FTE method yielded a Hold recommendation with a price target of $132.05, corresponding to an upside potential of 6.77% (Table 11 and Appendix 26).

Dividend Discount Model (DDM)

The DDM is deemed inadequate as Hilton does not pay dividends at a rising rate. Since 2017 and apart from 2020 and 2021, Hilton has paid a regular quarterly dividend of $0.15 per share, which the Board of Directors intends to maintain over the forecasted period.

Market-based Valuation

A market-based valuation was performed as a complementary approach to the absolute valuation, considering the peers selected through the SARD's model.

The following multiples were used (Table 12 and Appendix 28):

- P/E, with a peer average of 27.25x, reaching a PT of $137.03 for 2023YE.
- EV/Sales and EV/EBITDA, with a peer average of 4.10x and 18.89x, resulting in a PT of $134.58 and $132.84 for 2023YE, respectively.

7. Financial Analysis

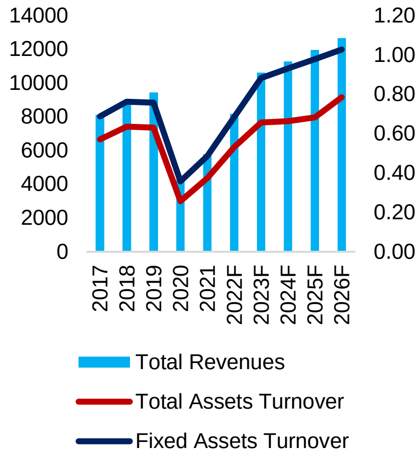
7.1 Efficiency

Hilton's Total Revenues experienced a drastic drop in 2020 (-54.41% YoY) due to the pandemic effects in tourism and global economy. Since 2021, Hilton has been recovering its pace due to the strong rebound in tourism, with Total Revenues expected to grow at +16.97% CAGR 2021-2026F. This rise is expected to be reflected into higher efficiency in managing its assets to generate revenues, with Total Assets Turnover projected to grow from 0.53x in 2022F to 0.79x in 2026F and Fixed Assets Turnover estimated to increase from 0.68x in 2022F to 1.03 in 2026F (Figure 56).

7.2 Profitability

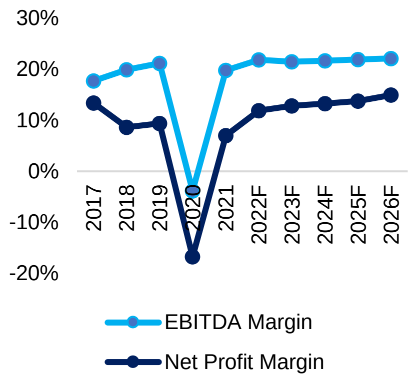
Hilton's profitability indicators were strongly affected by the pandemic, with the EBITDA Margin decreasing from 17.71% in 2017 to -3.81% in 2020 and Net Profit Margin dropping from 13.32% in 2017 to -16.72% in 2020. Since 2021, with the recovery of the business these measures are bouncing back to pre-pandemic values and are even expected to surpass those over the forecasted years, with

Figure 56 - Efficiency ratios



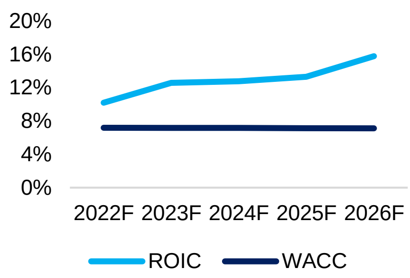
Source: Author's Analysis

Figure 57 - Profitability ratios



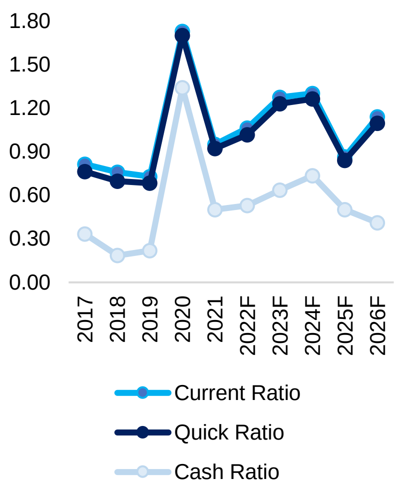
Source: Author's Analysis

Figure 58 - ROIC vs WACC



Source: Author's Analysis

Figure 59 - Liquidity ratios



Source: Author's Analysis

EBITDA and Net Profit Margin expected to reach 22.13% and 14.96% in 2026F, respectively (Figure 57).

Following the same trend, ROA is expected to rise +29.09% CAGR 2021-2026F and ROIC is expected to increase from 10.20% in 2022F to 15.79% in 2026F. ROIC is projected to achieve higher values than the estimated WACC for each of the forecasted years, which shows Hilton's ability to create value (Figure 58).

7.3 Liquidity and Solvency

In 2020, Hilton strengthened its liquidity position in response to the significant decrease in profitability triggered by the pandemic. Over the forecasted years, the current, quick and cash ratios are expected to range between 1.06x-1.30x, 1.02x-1.26x and 0.41x-0.73x, respectively. In 2025F and 2026F, all three ratios should present lower values due to the repayment of senior notes (Figure 59).

Regarding Solvency, the Debt-to-EBITDA ratio is expected to continuously decrease (-23.44% CAGR 2021-2026F), with a projected ratio of 4.90x in 2022F to 2.01x in 2026F (Figure 60). This drop is explained by the EBITDA growth (+19.62%) and in 2026F also by the repayment of the senior note of $2619M. The growth of the interest coverage ratio from 3.86x in 2022F to 9.69x in 2026F also emphasizes the increasing ability of Hilton to cover its debt obligations over the years (Figure 61).

It is also important to stress that since 2017, when Hilton initiated the share repurchase program with the purpose to return value to its shareholders the equity value has decreased and even achieved a negative value in 2019 due to the repurchase of approximately 16.9 million shares for $1.5 billion. Therefore, the ROE, Debt to Equity and the Equity Multiplier analysis have become a misleading indicator of profitability and solvency, respectively.

8. Investment Risks

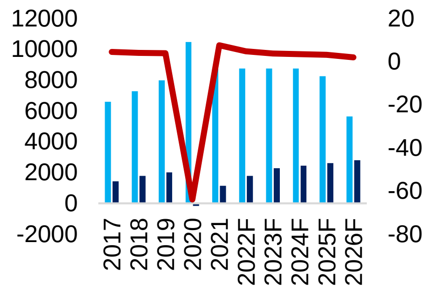
8.1 Risks Identification and Characterization

Market Risks

Geopolitical instability, contagious diseases and natural or man-made disasters (MR1)

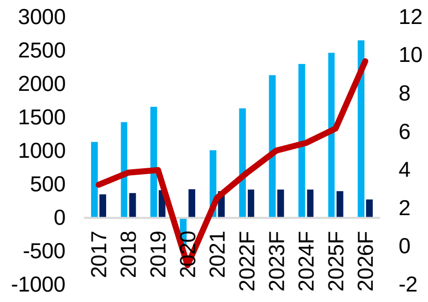
War, political instability, terrorist threats, contagious diseases such as COVID-19 and natural or man-made disasters are external factors that can result in temporary restrictions to mobility, hotel closures and reduce the appeal of travel. These can adversely impact the operations and financial performance of Hilton. Currently, Hilton has been experiencing strong signs of recovery from Covid-19 and no future periods are expected to resemble the periods affected by the pandemic.

Figure 60 – Debt to EBITDA ratio



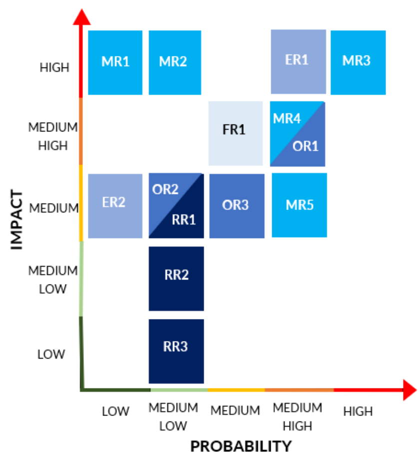
Source: Author's Analysis

Figure 61- Interest Coverage ratio



Source: Author's Analysis

Figure 62 - Risk Matrix



Legend:
Impact - Effect of the risk on Hilton's financials, operations, yield, growth, and market share.
Probability - Likelihood of risk realization

Market Risk
Economic Risk
Operational Risk
Regulatory Risk
Financial Risk

Source: Author's Analysis

Reputation (MR2)

Hilton's brands and reputation are among its most important assets and any deterioration could rapidly impact the market share, business, financial condition, or results of operations.

Fierce Competition (MR3)

The hospitality industry is highly competitive, composed of multiple companies worldwide offering identical services and low switching costs for guests. Therefore, differentiation and a competitive price are key for Hilton to compete successfully. In addition, posing as a threat are other competitors M&A activity, since it can reduce Hilton's market share; as well as the growth of non-traditional accommodation options (e.g., Airbnb) that can alter customers' preferences.

Hilton also faces competition for management and franchise contracts that is based in numerous factors that include: brand name recognition and reputation as well as value and quality of management services. New franchised and management contracts can be reduced and harm the business if Hilton's managed or franchised properties are less successfully than the competitors, if contract terms are less favorable or in case the availability of suitable properties is limited.

Russia Invasion of Ukraine (MR4)

Hilton's management and franchise hotels and fees in Russia and Ukraine account with less than 1%, thus its operations in these countries have no material effects in the financial results. Nevertheless, the broader consequences emerging from the war, which include the rise of energy prices; shortages of and increased costs for food, goods and services and further escalation of related geopolitical tensions, can adversely impact Hilton's operations.

Growth of internet reservation channels (MR5)

A significant portion of hotel rooms are booked using internet travel intermediaries, to whom Hilton pays multiple commissions. The wider use of these platforms leads to higher commissions and even though Hilton has agreements with many hospitality intermediaries to limit transaction fees there is no assurance that the company will be able to renegotiate these upon expiration. With the investment in new partnerships for the Loyalty Program – Hilton Honors, Hilton expects to attract and retain more guests and increase direct bookings.

Economic Risks

Downturn of economic conditions (ER1)

The lodging industry is cyclical and generally follows, on a lagged basis, the overall economy. Therefore, a global recession or low levels of economic growth, including a rise in inflation rates, supply chain disruptions, increases in interest rates, and increases in unemployment levels can weaken consumers' demand and consequently downturn Hilton 's revenues, profitability, and future growth.

Fluctuations in foreign exchange rates (ER2)

Hilton conducts operations in 122 countries and territories, therefore it is subjected to exchange rate fluctuations that can negatively impact the financial results. As of December 2021, the largest net exposures were to AUD and EUR. Foreign exchange derivatives (forward contacts) with financial institutions are a way to mitigate this risk, however these do not entirely remove the foreign currency risk as these are exposed to their own cost and risks - i.e., transaction costs, credit requirements, interest rate differentials, and counterparty risk.

Operational Risks

Cyber Security (OR1)

In recent years, access to unauthorized information has increased and become more sophisticated. Thus, Hilton is more subjected to cyber-attacks and data breaches of customer, employee or company data that can lead to loss of consumers' confidence, reputational damage, and large costs.

Innovation of Operations (OR2)

A failure in keeping up with the newest developments in technology such as sophisticated systems for property management and reservations can weaken Hilton's operational and competitive position.

Labor shortage (OR3)

It is vital for Hilton to retain a key quality management and staff team since hospitality industry is highly competitive and qualified professionals are scarce. A shortage of skilled labor can decrease guests' satisfaction, increase labor costs which result in reduced profits and hinder the ability to operate, grow and expand the business. Therefore, hotels must produce retention strategies to keep employees engaged.

Regulatory Risks

Legal, Regulatory, and Ethical Compliance (RR1)

Hilton is subject to numerous, complex, and frequently changing laws, regulations, and contractual obligations that differ from country to country. A non-compliance with those can lead to restrictions in the hotel's business operations, increase in exposure to fines and litigations and result in reputational damage.

Environmental Risk (RR2)

Hotels produce a large carbon footprint, and this can be subject to scrutiny by regulators and investor groups that focus on ESG issues. Therefore, Hilton must comply with environmental regulations imposed by the countries in which it operates. Noncompliance or misunderstanding of existing or new laws and regulations can result in additional expenses and operating restrictions.

Taxation (RR3)

Hilton has operations worldwide, hence it is exposed to different tax jurisdictions that can change unpredictably – an increase or misinterpretation in these can result in higher tax expenses and liabilities, which will deteriorate financial results.

Financial Risk

Indebtedness (FR1)

Hilton has substantial debt and other contractual obligations that can adversely affect the company's financial condition, ability to raise additional capital, restrict operations, increase the vulnerability to adverse changes in the economy or industry and expose to increased interest rates.

8.2 Sensitivity Analysis

The DCF valuation is highly sensitive to variables such as: the terminal period growth rate, WACC rate and Risk-free rate. Therefore, we performed a sensitivity analysis to stress the impact that the changes in these variables have on the price target.

Table 13 - Investment recommendation system - Medium Risk

Medium Risk	
Sell	-5%≤
Reduce	>-5% & ≤5%
Hold	>5% & ≤15%
Buy	>15% & ≤30%
Strong Buy	>30%

Source: Recommendation system

WACC and terminal growth rate

The WACC rate is set at 7.20% in the base case, each increase of 10bps could lead to a price target decrease of $2.77-3.25/share, ceteris paribus, whereas each decrease of 10bps could result in a price target increase of $3.39-4.06/share, ceteris paribus. The terminal growth rate is established at 2.43% in the base case, each increase of 10bps could lead to a price target increase of $2.99-3.57/share, and each decrease of 10bps could result in a decrease of $2.45-2.87/share on the price target, ceteris paribus (Table 14).

Table 14 - Sensitivity Analysis to changes in WACC rate vs Terminal Growth Rate

		Changes in WACC										
	$ 132.25	6.70%	6.80%	6.90%	7.00%	7.10%	**7.20%**	7.30%	7.40%	7.50%	7.60%	7.70%
Changes in Terminal Growth Rate	1.93%	$ 134.23	$ 130.93	$ 127.76	$ 124.72	$ 121.80	$ 118.99	$ 116.29	$ 113.69	$ 111.18	$ 108.76	$ 106.42
	2.03%	$ 137.26	$ 133.83	$ 130.54	$ 127.38	$ 124.35	$ 121.44	$ 118.64	$ 115.94	$ 113.35	$ 110.85	$ 108.43
	2.13%	$ 140.43	$ 136.86	$ 133.43	$ 130.15	$ 127.00	$ 123.98	$ 121.08	$ 118.29	$ 115.60	$ 113.01	$ 110.52
	2.23%	$ 143.74	$ 140.02	$ 136.45	$ 133.04	$ 129.77	$ 126.63	$ 123.62	$ 120.72	$ 117.93	$ 115.26	$ 112.67
	2.33%	$ 147.20	$ 143.32	$ 139.60	$ 136.05	$ 132.65	$ 129.38	$ 126.25	$ 123.25	$ 120.36	$ 117.59	$ 114.91
	2.43%	$ 150.83	$ 146.77	$ 142.89	$ 139.19	$ 135.65	**$ 132.25**	$ 129.00	$ 125.88	$ 122.88	$ 120.01	$ 117.24
	2.53%	$ 154.62	$ 150.38	$ 146.33	$ 142.47	$ 138.78	$ 135.25	$ 131.86	$ 128.62	$ 125.51	$ 122.52	$ 119.65
	2.63%	$ 158.60	$ 154.17	$ 149.94	$ 145.90	$ 142.05	$ 138.37	$ 134.85	$ 131.47	$ 128.24	$ 125.14	$ 122.16
	2.73%	$ 162.79	$ 158.14	$ 153.71	$ 149.50	$ 145.47	$ 141.63	$ 137.96	$ 134.45	$ 131.09	$ 127.86	$ 124.77
	2.83%	$ 167.19	$ 162.31	$ 157.67	$ 153.26	$ 149.06	$ 145.05	$ 141.22	$ 137.56	$ 134.05	$ 130.70	$ 127.48
	2.93%	$ 171.82	$ 166.70	$ 161.83	$ 157.21	$ 152.81	$ 148.62	$ 144.62	$ 140.80	$ 137.15	$ 133.66	$ 130.31

Source: Author's Analysis

Risk-free rate

The Rf assumes a value of 2.05% in the base case, each increase of 5 bps could lead to a price target decrease of $1.49-1.61/share, whereas each decrease would represent an increase of $1.72-3.32/share on the price target, with all other variables remaining constant (Table 15).

Table 15 - Sensitivity Analysis to changes in Rf

	Changes in Rf										
	1.80%	1.85%	1.90%	1.95%	2.00%	**2.05%**	2.10%	2.15%	2.20%	2.25%	2.30%
Price Target	$ 142.65	$ 140.82	$ 139.04	$ 137.29	$ 135.57	**$ 132.25**	$ 130.64	$ 129.06	$ 127.51	$ 126.00	$ 124.51

Source: Author's Analysis

RevPAR

The RevPAR is also a variable that highly affects the DCF, through the FCFF. As such, a sensitivity analysis was also performed on this, namely on the Franchise segment for being the most important source of Hilton's revenues. The RevPAR in the base case is set at $108.78 and each increase (decrease) of $2 could represent an increase (decrease) of $2.78/share on the price target, ceteris paribus (Table 16).

Table 16 - Sensitivity Analysis to changes in RevPAR

	Changes in RevPAR										
	$ 98.78	$ 100.78	$ 102.78	$ 104.78	$ 106.78	**$ 108.78**	$ 110.78	$ 112.78	$ 114.78	$ 116.78	$ 118.78
Price Target	$ 118.34	$ 121.13	$ 123.91	$ 126.69	$ 129.47	**$ 132.25**	$ 135.03	$ 137.81	$ 140.60	$ 143.38	$ 146.16

Source: Author's Analysis

8.3 Monte Carlo Simulation

A Monte Carlo Simulation with 20,000 iterations using the Crystal Ball was performed to complement the risk assessment, considering simultaneously changes in: RevPAR in the Franchise segment, WACC, g and Rf.

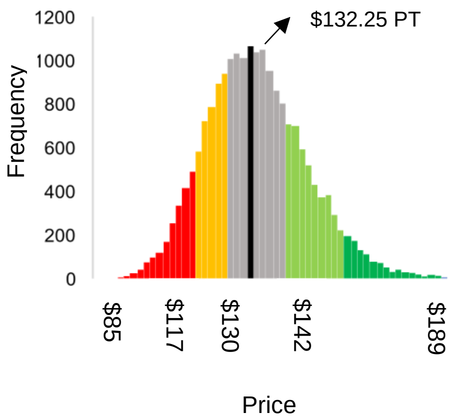
The results are consistent with our previously estimated PT, yielding a mean price of $133.22 corresponding to an upside potential of 7.73% when compared with the current share price of $123.67. There is a certainty of around 60% from a Hold to Buy and Strong Buy recommendation, of which 31.30% correspond to a Hold recommendation (Figure 63).

Table 17 – Monte Carlo Simulation Statistics

Indicator	Amount
Trials	20,000
Base Case (WACC method)	$123.67
Median	$132.26
Mean	**$133.22**
St. deviation	$14.75
10th Percentile	$115.16
90th Percentile	$152.73
Upside Potential	**7.73%**
Price: 28/09/2022	$123.67

Source: Author's Analysis; Oracle Crystal Ball

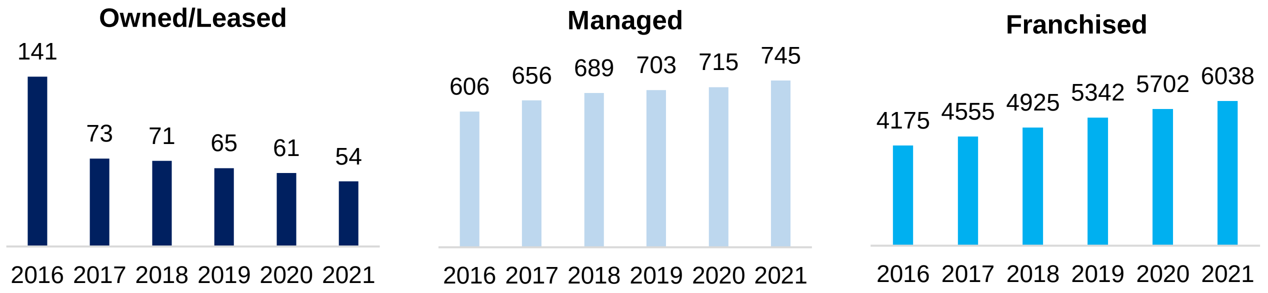
Figure 63 - Monte Carlo Simulation



Source: Author's Analysis; Oracle Crystal Ball

Appendices

Appendix 1: Number of properties by business segment



Source: Hilton's Annual Reports

Appendix 2: Key Drivers of Profitability

Occupancy rate = $\frac{\text{Total number of rooms sold}}{\text{Total number of available rooms}}$ **ADR** = $\frac{\text{Room revenues}}{\text{Total number of rooms sold}}$

$$\textbf{RevPAR} = \textbf{Occupancy rate} \times \textbf{ADR}$$

Source: Hilton's Annual Report

Appendix 3: Board of Directors in 2021

Director	Age	Position	Appointed	Total Compensation
Christopher J. Nassetta	59	President, CEO, Director	2007	$23,285,248
Jonathan D. Gray	52	Non-Executive Chairman Of The Board	2016	$269,883
Charlene T. Begley	55	Independent Director	2017	$309,883
Chris Carr	58	Independent Director	2020	$290,932
Melanie L. Healey	60	Independent Director	2017	$311,931
Raymond E. Mabus, Jr	73	Independent Director	2017	$303,768
Judith A. McHale	75	Independent Director	2013	$294,883
Elizabeth A. Smith	58	Independent Director	2013	$304,736
John G. Schreiber[6]	74	Independent Director	2007	$279,883
Douglas M. Steenland	70	Lead Independent Director	2018	$387,704

Source: Hilton's 2022 Proxy Statement

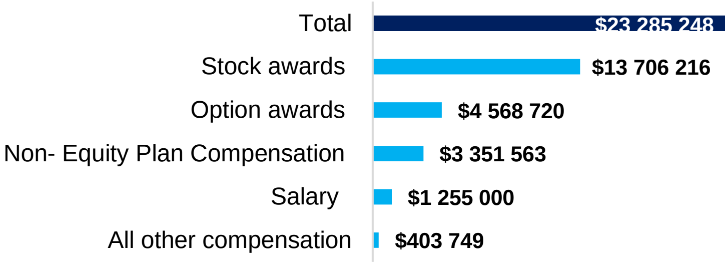
[6] Mr. Schreiber retired from the Board in 2021

Appendix 4: 2021 Executive Compensation Program

Pay elements	Form		Performance Measure & Key Characteristics
Base Salary	Cash		Competitive fixed level of pay
Annual Cash Incentives	Cash	**Financial** CEO: 50% Other NEO's: 40% **Business Area & Organizational Strength** CEO: 50% Other NEO's: 60%	Annual Adjusted EBITDA **Business Area**: primarily based on quantitative objectives (e.g., Hilton Honors Enrollments, New Franchise and Management Agreements, Franchise Fees Adjusted EBITDA). **Organizational Strength**: ESG and HCM objectives (including achieving specific DE&I targets, Team Member engagement and talent management efforts) as well as budget and cost management objective.
Long-term incentives	Equity	**PSUs:** 50%	FCF per share, Adjusted EBITDA, NUG CAGR and RevPAR Index Growth Vest at the end of the performance period after 3 years
		Stock Options: 25%	Vest ratably over 3 years
		RSUs: 25%	Vest ratably over 2 years
Other Benefits and Perquisites			
	General Benefits		Group health, dental and disability insurance, and basic life insurance premiums.
	Retirement Saving Benefits		**401 (k) Plan:** a tax-qualified 401(k) plan that matches 100% of Team Member contributions up to 3% of eligible compensation and 50% of Team Member contributions on the next 2% of eligible compensation. **Executive Deferred Compensation Plan ("EDCP"):** Hilton has historically offered NEOs and other senior management the opportunity to supplement their retirement and other tax-deferred savings through Hilton's EDCP. As of December 31, 2018, the EDCP was frozen, meaning no new participants may enter the plan and no compensation that is earned after December 31, 2018, may be deferred.
Perquisites			**ALL NEO's:** The travel perquisite program provides our executive officers and non-employee directors and their accompanying family member with Company-paid rooms, food and beverage and on-site services while on personnel travel at Company-branded hotels. **CEO:** Hilton provides Mr. Nassetta with a life insurance benefit for his family, Mr.Nassetta and his family are authorized to use Company aircraft for personal and business travel and to stay at any Company branded hotels free of charge.

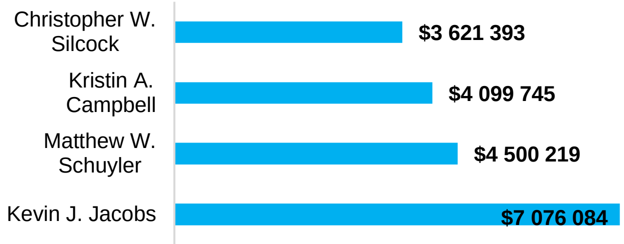
Source: Hilton's 2022 Proxy Statement

Appendix 5: CEO's compensation in 2021



Source: Hilton's 2022 Proxy Statement

Appendix 6: Other NEO's compensation in 2021 (average)



Source: Hilton's 2022 Proxy Statement

Appendix 7: ESG Governance Structure

- Works with the business to set Hilton's strategic direction
- Ensures the business is managed ethically and responsibly

- Reviews and assesses the company's ESG strategy, practices, and policies, and makes recommendations to the Board as appropriate

• Executive Committee (EC) approves major ESG programs and monitors progress towards 2030 Goals
• CEO is accountable for ESG-related issues and decision
• Chief ESG Officer oversees Hilton's ESG strategy and reporting efforts, is a member of the EC and reports directly to the CEO

Source: Hilton's 2022 Proxy Statement

Appendix 8: Income Statement

Income Statement										
in Millions $	**2017**	**2018**	**2019**	**2020**	**2021**	**2022F**	**2023F**	**2024F**	**2025F**	**2026F**
Revenues										
Franchise and licensing fees	1 321	1 530	1 681	945	1 493	1 668	2 145	2 323	2 506	2 703
Base and other management fees	324	321	332	123	176	285	356	372	387	403
Incentive management fees	222	235	230	38	98	190	238	248	258	269
Owned and leased hotels	1 432	1 484	1 422	421	598	767	1 159	1 111	1 050	978
Other revenues	105	98	101	73	79	89	119	123	128	132
	3 404	3 668	3 766	1 600	2 444	2 998	4 017	4 178	4 330	4 486
Other revenues from managed and franchised properties	4 727	5 238	5 686	2 707	3 444	5 185	6 616	7 118	7 634	8 188
Total revenues	**8 131**	**8 906**	**9 452**	**4 307**	**5 788**	**8 184**	**10 633**	**11 295**	**11 964**	**12 674**
Expenses										
Owned and leased hotels	1 269	1 332	1 254	620	679	729	1 101	1 056	998	929
Depreciation and amortization	336	325	346	331	188	129	129	130	130	132
General and administrative	439	443	441	311	405	451	586	622	659	698
Reorganization costs	-	-	-	41	-	-	-	-	-	-
Impairment losses	-	-	-	258	-	-	-	-	-	-
Other expenses	56	51	72	60	45	52	69	72	75	77
	2 100	2 151	2 113	1 621	1 317	1 361	1 886	1 880	1 862	1 836
Other expenses from managed and franchised properties	4 899	5 323	5 763	3 104	3 454	5 185	6 616	7 118	7 634	8 188
Total expenses	**6 999**	**7 474**	**7 876**	**4 725**	**4 771**	**6 546**	**8 502**	**8 998**	**9 496**	**10 024**
Gain (loss) on sale of assets, net	-	-	81	-	-7	-	-	-	-	-
Operating income (loss)	**1 132**	**1 432**	**1 657**	**-418**	**1 010**	**1 637**	**2 131**	**2 298**	**2 468**	**2 650**
Interest expense	-351	-371	-414	-429	-397	-424	-424	-424	-400	-273
Loss (gain) on foreign currency transactions	3	-11	-2	-27	-7	-	-	-	-	-
Loss on debt extinguishments	-60	0	0	-48	-69	-	-	-	-	-
Other non-operating income (loss), net	29	28	3	-2	23	23	23	23	23	23
Income (loss) before income taxes	**753**	**1 078**	**1 244**	**-924**	**560**	**1 236**	**1 730**	**1 896**	**2 091**	**2 399**
Income tax benefit (expense)	336	-309	-358	204	-153	-259	-363	-398	-439	-504
Net income (loss)	**1 089**	**769**	**886**	**-720**	**407**	**976**	**1 366**	**1 498**	**1 652**	**1 895**
Net loss (income) attributable to noncontrolling interests	-5	-5	-5	5	3	3	3	3	3	3
Net income (loss) attributable to Hilton stockholders	**1 084**	**764**	**881**	**-715**	**410**	**979**	**1 369**	**1 501**	**1 655**	**1 898**
EBITDA	**1 440**	**1 774**	**2 004**	**-164**	**1 145**	**1 790**	**2 283**	**2 450**	**2 621**	**2 804**

Appendix 9: Common-Size Income Statement

Income Statement										
in Millions $	**2017**	**2018**	**2019**	**2020**	**2021**	**2022F**	**2023F**	**2024F**	**2025F**	**2026F**
Revenues										
Franchise and licensing fees	16.25%	17.18%	17.78%	21.94%	25.79%	20.38%	20.18%	20.56%	20.95%	21.33%
Base and other management fees	3.98%	3.60%	3.51%	2.86%	3.04%	3.48%	3.35%	3.29%	3.24%	3.18%
Incentive management fees	2.73%	2.64%	2.43%	0.88%	1.69%	2.32%	2.23%	2.20%	2.16%	2.12%
Owned and leased hotels	17.61%	16.66%	15.04%	9.77%	10.33%	9.38%	10.90%	9.84%	8.78%	7.71%
Other revenues	1.29%	1.10%	1.07%	1.69%	1.36%	1.08%	1.12%	1.09%	1.07%	1.05%
	41.86%	41.19%	39.84%	37.15%	42.23%	36.64%	37.78%	36.98%	36.19%	35.40%
Other revenues from managed and franchised properties	58.14%	58.81%	60.16%	62.85%	59.50%	63.36%	62.22%	63.02%	63.81%	64.60%
Total revenues	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Expenses										
Owned and leased hotels	15.61%	14.96%	13.27%	14.40%	11.73%	8.91%	10.36%	9.35%	8.34%	7.33%
Depreciation and amortization	4.13%	3.65%	3.66%	7.69%	3.25%	1.58%	1.22%	1.15%	1.09%	1.04%
General and administrative	5.40%	4.97%	4.67%	7.22%	7.00%	5.51%	5.51%	5.51%	5.51%	5.51%
Reorganization costs	-	-	-	0.95%	-	-	-	-	-	-
Impairment losses	-	-	-	5.99%	-	-	-	-	-	-
Other expenses	0.69%	0.57%	0.76%	1.39%	0.78%	0.63%	0.65%	0.64%	0.62%	0.61%
	25.83%	24.15%	22.36%	37.64%	22.75%	16.63%	17.73%	16.64%	15.56%	14.49%
Other expenses from managed and franchised properties	60.25%	59.77%	60.97%	72.07%	59.68%	63.36%	62.22%	63.02%	63.81%	64.60%
Total expenses	**86.08%**	**83.92%**	**83.33%**	**109.71%**	**82.43%**	**80.00%**	**79.96%**	**79.66%**	**79.37%**	**79.09%**
Gain (loss) on sale of assets, net	-	-	0.86%	-	-0.12%	-	-	-	-	-
Operating income (loss)	**13.92%**	**16.08%**	**17.53%**	**-9.71%**	**17.45%**	**20.00%**	**20.04%**	**20.34%**	**20.63%**	**20.91%**
Interest expense	-4.32%	-4.17%	-4.38%	-9.96%	-6.86%	-5.19%	-3.99%	-3.76%	-3.35%	-2.16%
Loss (gain) on foreign currency transactions	0.04%	-0.12%	-0.02%	-0.63%	-0.12%	-	-	-	-	-
Loss on debt extinguishments	-0.74%	0.00%	0.00%	-1.11%	-1.19%	-	-	-	-	-
Other non-operating income (loss), net	0.36%	0.31%	0.03%	-0.05%	0.40%	0.28%	0.22%	0.20%	0.19%	0.18%
Income (loss) before income taxes	**9.26%**	**12.10%**	**13.16%**	**-21.45%**	**9.68%**	**15.10%**	**16.27%**	**16.79%**	**17.48%**	**18.93%**
Income tax benefit (expense)	4.13%	-3.47%	-3.79%	4.74%	-2.64%	-3.17%	-3.42%	-3.53%	-3.67%	-3.98%
Net income (loss)	**13.39%**	**8.63%**	**9.37%**	**-16.72%**	**7.03%**	**11.93%**	**12.85%**	**13.26%**	**13.81%**	**14.96%**
Net loss (income) attributable to noncontrolling interests	-0.06%	-0.06%	-0.05%	0.12%	0.05%	0.04%	0.03%	0.03%	0.03%	0.02%
Net income (loss) attributable to Hilton stockholders	**13.33%**	**8.58%**	**9.32%**	**-16.60%**	**7.08%**	**11.96%**	**12.88%**	**13.29%**	**13.83%**	**14.98%**
EBITDA	**17.71%**	**19.92%**	**21.20%**	**-3.81%**	**19.78%**	**21.87%**	**21.47%**	**21.69%**	**21.91%**	**22.13%**

Appendix 10: Statement of Financial Position

BALANCE SHEET										
in Millions $	**2017**	**2018**	**2019**	**2020**	**2021**	**2022F**	**2023F**	**2024F**	**2025F**	**2026F**
Assets										
Cash and cash equivalents	670	484	630	3 263	1 512	1 455	1 803	2 461	2 764	1 179
Accounts receivable, net	1 005	1 150	1 261	771	1 068	1 167	1 517	1 611	1 707	1 808
Prepaid expenses	127	160	130	70	89	127	127	127	127	127
Other	205	189	72	98	202	167	167	167	167	167
Total current assets	**2 007**	**1 983**	**2 093**	**4 202**	**2 871**	**2 916**	**3 613**	**4 366**	**4 765**	**3 280**
Goodwill	5 190	5 160	5 159	5 095	5 071	5 071	5 071	5 071	5 071	5 071
Brands	4 890	4 869	4 877	4 904	4 883	4 883	4 883	4 883	4 883	4 883
Management and franchise contracts, net	953	872	780	653	758	816	914	1 026	1 152	1 291
Other intangible assets, net	433	415	421	266	194	237	275	308	339	367
Operating lease right-of-use assets	-	-	867	772	694	655	615	572	528	481
Property and equipment, net	353	367	380	346	305	291	277	263	249	234
Deferred income tax assets	111	90	100	194	213	213	213	213	213	213
Other	291	239	280	323	452	316	316	316	316	316
Total intangibles and other assets	**12 221**	**12 012**	**12 864**	**12 553**	**12 570**	**12 482**	**12 563**	**12 652**	**12 750**	**12 856**
TOTAL ASSETS	**14 228**	**13 995**	**14 957**	**16 755**	**15 441**	**15 398**	**16 176**	**17 019**	**17 515**	**16 136**
LIABILITIES										
Accounts payable, accrued expenses and other	1 428	1 549	1 703	1 302	1 568	1 569	1 658	1 681	1 703	1 727
Current maturities of long-term debt	46	16	37	56	54	26	26	523	2 660	-
Current portion of deferred revenues	366	350	332	370	350	350	350	350	350	350
Current portion of liability for guest loyalty program	622	700	799	703	1 047	799	799	799	799	799
Total current liabilities	**2 462**	**2 615**	**2 871**	**2 431**	**3 019**	**2 743**	**2 832**	**3 352**	**5 512**	**2 876**
Long-term debt	6 556	7 266	7 956	10 431	8 712	8 740	8 740	8 243	5 606	5 647
Operating lease liabilities	-	-	1 037	971	870	822	771	717	661	602
Deferred revenues	829	826	827	1 004	896	845	845	845	845	845
Deferred income tax liabilities	931	898	795	649	700	700	700	700	700	700
Liability for guest loyalty program	839	969	1 060	1 766	1 317	1 060	1 060	1 060	1 060	1 060
Other	920	863	883	989	746	853	853	853	853	853
Total non-current liabilities	**10 075**	**10 822**	**12 558**	**15 810**	**13 241**	**13 019**	**12 968**	**12 418**	**9 725**	**9 707**
Total liabilities	**12 537**	**13 437**	**15 429**	**18 241**	**16 260**	**15 762**	**15 801**	**15 770**	**15 237**	**12 583**
EQUITY										
Preferred stock	-	-	-	-	-	-	-	-	-	-
Common stock	3	3	3	3	3	3	3	3	3	3
Treasury stock	-891	-2 625	-4 169	-4 453	-4 443	-4 443	-4 443	-4 443	-4 443	-4 443
Additional paid-in capital	10 298	10 372	10 489	10 552	10 720	10 720	10 720	10 720	10 720	10 720
Accumulated deficit	-6 981	-6 417	-5 965	-6 732	-6 322	-5 907	-5 141	-4 241	-3 186	-1 885
Accumulated other comprehensive loss	-741	-782	-840	-860	-779	-740	-766	-792	-818	-844
Total Hilton stockholders' deficit	1 688	551	-482	-1 490	-821	-367	373	1 247	2 276	3 551
Noncontrolling interests	3	7	10	4	2	2	2	2	2	2
Total deficit	**1 691**	**558**	**-472**	**-1 486**	**-819**	**-365**	**375**	**1 249**	**2 278**	**3 553**
TOTAL LIABILITIES AND EQUITY	**14 228**	**13 995**	**14 957**	**16 755**	**15 441**	**15 398**	**16 176**	**17 019**	**17 515**	**16 136**

Appendix 11: Common-Size Statement of Financial Position

BALANCE SHEET										
Common-size		**2018**	**2019**	**2020**	**2021**	**2022F**	**2023F**	**2024F**	**2025F**	**2026F**
Assets										
Cash and cash equivalents	4.71%	3.46%	4.21%	19.47%	9.79%	9.45%	11.14%	14.46%	15.78%	7.30%
Accounts receivable, net	7.06%	8.22%	8.43%	4.60%	6.92%	7.58%	9.38%	9.47%	9.75%	11.21%
Prepaid expenses	0.89%	1.14%	0.87%	0.42%	0.58%	0.82%	0.78%	0.74%	0.72%	0.78%
Other	1.44%	1.35%	0.48%	0.58%	1.31%	1.08%	1.03%	0.98%	0.95%	1.03%
Total current assets	**14.11%**	**14.17%**	**13.99%**	**25.08%**	**18.59%**	**18.94%**	**22.34%**	**25.66%**	**27.20%**	**20.33%**
Goodwill	36.48%	36.87%	34.49%	30.41%	32.84%	32.93%	31.35%	29.80%	28.95%	31.43%
Brands	34.37%	34.79%	32.61%	29.27%	31.62%	31.71%	30.19%	28.69%	27.88%	30.26%
Management and franchise contracts, net	6.70%	6.23%	5.21%	3.90%	4.91%	5.30%	5.65%	6.03%	6.58%	8.00%
Other intangible assets, net	3.04%	2.97%	2.81%	1.59%	1.26%	1.54%	1.70%	1.81%	1.93%	2.28%
Operating lease right-of-use assets	-	-	5.80%	4.61%	4.49%	4.26%	3.80%	3.36%	3.01%	2.98%
Property and equipment, net	2.48%	2.62%	2.54%	2.07%	1.98%	1.89%	1.71%	1.54%	1.42%	1.45%
Deferred income tax assets	0.78%	0.64%	0.67%	1.16%	1.38%	1.38%	1.32%	1.25%	1.22%	1.32%
Other	2.05%	1.71%	1.87%	1.93%	2.93%	2.05%	1.95%	1.85%	1.80%	1.96%
Total intangibles and other assets	**85.89%**	**85.83%**	**86.01%**	**74.92%**	**81.41%**	**81.06%**	**77.66%**	**74.34%**	**72.80%**	**79.67%**
TOTAL ASSETS	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
LIABILITIES										
Accounts payable, accrued expenses and other	10.04%	11.07%	11.39%	7.77%	10.15%	10.19%	10.25%	9.87%	9.72%	10.70%
Current maturities of long-term debt	0.32%	0.11%	0.25%	0.33%	0.35%	0.17%	0.16%	3.07%	15.19%	-
Current portion of deferred revenues	2.57%	2.50%	2.22%	2.21%	2.27%	2.27%	2.16%	2.05%	2.00%	2.17%
Current portion of liability for guest loyalty program	4.37%	5.00%	5.34%	4.20%	6.78%	5.19%	4.94%	4.69%	4.56%	4.95%
Total current liabilities	**17.30%**	**18.69%**	**19.20%**	**14.51%**	**19.55%**	**17.82%**	**17.51%**	**19.70%**	**31.47%**	**17.82%**
Long-term debt	46.08%	51.92%	53.19%	62.26%	56.42%	56.76%	54.03%	48.43%	32.01%	35.00%
Operating lease liabilities	-	-	6.93%	5.80%	5.63%	5.34%	4.76%	4.22%	3.78%	3.73%
Deferred revenues	5.83%	5.90%	5.53%	5.99%	5.80%	5.48%	5.22%	4.96%	4.82%	5.23%
Deferred income tax liabilities	6.54%	6.42%	5.32%	3.87%	4.53%	4.55%	4.33%	4.11%	4.00%	4.34%
Liability for guest loyalty program	5.90%	6.92%	7.09%	10.54%	8.53%	6.88%	6.55%	6.23%	6.05%	6.57%
Other	6.47%	6.17%	5.90%	5.90%	4.83%	5.54%	5.27%	5.01%	4.87%	5.29%
Total non-current liabilities	**70.81%**	**77.33%**	**83.96%**	**94.36%**	**85.75%**	**84.55%**	**80.17%**	**72.97%**	**55.52%**	**60.16%**
Total liabilities	**88.11%**	**96.01%**	**103.16%**	**108.87%**	**105.30%**	**102.37%**	**97.68%**	**92.66%**	**86.99%**	**77.98%**
EQUITY										
Preferred stock	-	-	-	-	-	-	-	-	-	-
Common stock	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%
Treasury stock	-6.26%	-18.76%	-27.87%	-26.58%	-28.77%	-28.86%	-27.47%	-26.11%	-25.37%	-27.54%
Additional paid-in capital	72.38%	74.11%	70.13%	62.98%	69.43%	69.62%	66.27%	62.99%	61.21%	66.44%
Accumulated deficit	-49.07%	-45.85%	-39.88%	-40.18%	-40.94%	-38.36%	-31.78%	-24.92%	-18.19%	-11.68%
Accumulated other comprehensive loss	-5.21%	-5.59%	-5.62%	-5.13%	-5.05%	-4.81%	-4.74%	-4.65%	-4.67%	-5.23%
Total Hilton stockholders' deficit	11.86%	3.94%	-3.22%	-8.89%	-5.32%	-2.38%	2.31%	7.33%	13.00%	22.01%
Noncontrolling interests	0.02%	0.05%	0.07%	0.02%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
Total deficit	**11.89%**	**3.99%**	**-3.16%**	**-8.87%**	**-5.30%**	**-2.37%**	**2.32%**	**7.34%**	**13.01%**	**22.02%**
TOTAL LIABILITIES AND EQUITY	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Appendix 12: Cash-Flow Statement

CASH FLOW STATEMENT					
in Million $	**2022F**	**2023F**	**2024F**	**2025F**	**2026F**
Operating activities	**1 063**	**1 511**	**1 823**	**1 944**	**2 049**
+EBIT	1 637	2 131	2 298	2 468	2 650
+D&A	129	129	130	130	132
-Income Tax	-259	-363	-398	-439	-504
-DNWC	-350	-260	-72	-73	-77
+Amortization of contract acquisition costs	28	30	34	38	43
-Contract acquisition costs	-122	-156	-168	-180	-194
Investment activities	**-84**	**-84**	**-85**	**-86**	**-86**
-CAPEX	-123	-125	-128	-130	-133
+-Other Inv.	39	41	43	45	47
Financing activities	**-1 037**	**-1 079**	**-1 079**	**-1 556**	**-3 549**
-Interest paid	-424	-424	-424	-400	-273
-Dividends	-124	-163	-161	-159	-157
-DDebt	-	-	-	-500	-2 619
+-Other Financing Activities	-48	-51	-53	-56	-59
-Share Repurchase	-440	-440	-440	-440	-440
Change in cash	-57	348	659	303	-1 586
Begining	1 512	1 455	1 803	2 461	2 764
End	1 455	1 803	2 461	2 764	1 179

Appendix 13: Common-Size of the Cash-Flow Statement

Cash Flow Statement					
Common-size	**2022F**	**2023F**	**2024F**	**2025F**	**2026F**
Operating activities	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
+EBIT	153.94%	141.03%	126.04%	126.95%	249.18%
+D&A	12.17%	8.55%	7.11%	6.71%	12.38%
-Income Tax	-24.40%	-24.04%	-21.84%	-22.58%	-47.38%
-DNWC	-32.88%	-17.23%	-3.95%	-3.74%	-7.27%
+Amortization of contract acquisition costs	2.63%	1.99%	1.85%	1.95%	4.00%
-Contract acquisition costs	-11.47%	-10.32%	-9.21%	-9.28%	-18.22%
Investment activities	**-7.89%**	**-5.59%**	**-4.66%**	**-4.40%**	**-8.10%**
-CAPEX	-11.53%	-8.27%	-7.00%	-6.70%	-12.51%
+-Other Inv.	3.63%	2.68%	2.34%	2.30%	4.41%
Financing activities	**-97.51%**	**-71.38%**	**-59.20%**	**-80.02%**	**-333.70%**
-Interest paid	-39.91%	-28.09%	-23.28%	-20.59%	-25.71%
-Dividends	-11.67%	-10.81%	-8.85%	-8.20%	-14.80%
-DDebt	-	-	-	-25.72%	-246.28%
+-Other Financing Activities	-4.55%	-3.36%	-2.93%	-2.88%	-5.53%
-Share Repurchase	-41.38%	-29.12%	-24.14%	-22.63%	-41.38%
Change in cash	-5.40%	23.03%	36.14%	15.58%	-149.11%
Begining	142.18%	96.26%	98.88%	126.60%	259.94%
End	136.78%	119.29%	135.01%	142.18%	110.83%

Appendix 14: Key Financial Ratios

Key Financial Ratios	Units	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026F
Liquidity Ratios											
Current Ratio	times	0.82	0.76	0.73	1.73	0.95	1.06	1.28	1.30	0.86	1.14
Quick Ratio	times	0.76	0.70	0.68	1.70	0.92	1.02	1.23	1.26	0.84	1.10
Cash Ratio	times	0.33	0.19	0.22	1.34	0.50	0.53	0.64	0.73	0.50	0.41
Efficiency Ratios											
Total Assets Turnover	times	0.57	0.64	0.63	0.26	0.37	0.53	0.66	0.66	0.68	0.79
Fixed Assets Turnover	times	0.69	0.76	0.76	0.36	0.49	0.68	0.88	0.93	0.98	1.03
Accounts Receivables Turnover	times	8.09	7.74	7.50	5.59	5.42	7.01	7.01	7.01	7.01	7.01
Payable Turnover	times	21.87	23.52	23.16	16.63	15.08	20.23	20.23	20.23	20.23	20.23
Collection Period	days	45.11	47.13	48.69	65.34	67.35	52.07	52.07	52.07	52.07	52.07
Payable Period	days	16.69	15.52	15.76	21.95	24.20	18.04	18.04	18.04	18.04	18.04
Cash Cycle	days	28.43	31.61	32.93	43.38	43.15	34.03	34.03	34.03	34.03	34.03
Working Capital Turnover	times	-7.54	-8.10	-6.89	-3.00	-3.60	-6.51	-10.68	-12.22	-14.05	-16.37
Profitability Ratios											
Gross Profit Margin	%	24.14%	25.28%	25.76%	13.54%	28.59%	27.73%	27.42%	27.64%	27.85%	28.07%
EBITDA Margin	%	17.71%	19.92%	21.20%	-3.81%	19.78%	21.87%	21.47%	21.69%	21.91%	22.13%
EBIT Margin	%	13.92%	16.08%	17.53%	-9.71%	17.45%	20.00%	20.04%	20.34%	20.63%	20.91%
Net Profit Margin	%	13.39%	8.63%	9.37%	-16.72%	7.03%	11.93%	12.85%	13.26%	13.81%	14.96%
ROA	%	7.65%	5.49%	5.92%	-4.30%	2.64%	2.66%	6.36%	8.47%	8.82%	9.45%
ROCE	%	9.58%	12.57%	13.67%	-2.91%	8.10%	12.91%	15.94%	16.19%	16.83%	19.98%
Capital employed	$M	11 812	11 396	12 123	14 380	12 476	12 680	13 369	14 190	14 663	13 260
ROIC	%	20.66%	8.96%	9.73%	-2.27%	5.88%	10.20%	12.59%	12.79%	13.30%	15.79%
NOPAT	$M	2441	1022	1180	-326	734	1293	1684	1815	1950	2093
Invested Capital	$M	11 812	11 396	12 123	14 380	12 476	12 680	13 369	14 190	14 663	13 260
SG&A/Sale	%	5.40%	4.97%	4.67%	7.22%	7.00%	5.51%	5.51%	5.51%	5.51%	5.51%
Solvency Ratios											
Debt to Total Assets	times	0.46	0.52	0.53	0.63	0.57	0.57	0.54	0.52	0.47	0.35
Long-term Debt to Assets	times	0.46	0.52	0.53	0.62	0.56	0.57	0.54	0.48	0.32	0.35
Debt to EBITDA	times	4.58	4.10	3.99	-63.95	7.66	4.90	3.84	3.58	3.15	2.01
Net Debt to EBITDA	times	4.12	3.83	3.67	-44.05	6.34	4.09	3.05	2.57	2.10	1.59
Interest Coverage	times	3.23	3.86	4.00	-0.97	2.54	3.86	5.02	5.41	6.17	9.69
Value Creation and Cash Flow Ratios											
Economic Value Added (EVA)	$M						382	724	796	897	1 140
Debt Coverage	%						12.13%	17.24%	20.80%	23.52%	36.29%
Cash to Income	%						64.96%	70.91%	79.34%	78.77%	77.33%
Earnings Quality	%						72.93%	85.91%	107.07%	104.64%	97.24%

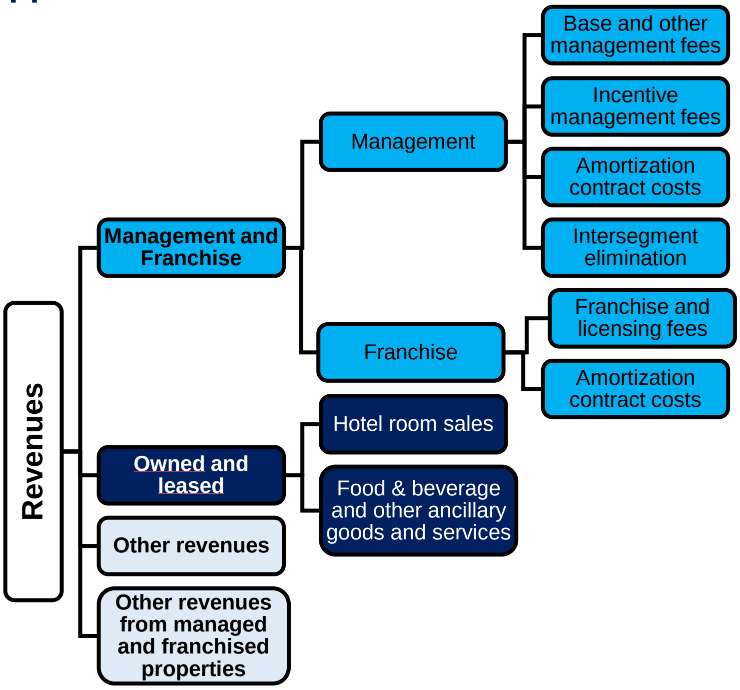
Appendix 15: Income Statement Forecasting Assumptions

	Unit	2022F	2023F	2024F	2025F	2026F	Assumption
Income Statement							
Revenues							
Franchise and licensing fees	$M	1 668	2 145	2 323	2 506	2 703	See Revenues (Appendix 18) for detailed forecast
Base and other management fees	$M	285	356	372	387	403	
Incentive management fees	$M	190	238	248	258	269	
Owned and leased hotels	$M	767	1 159	1 111	1 050	978	
Other revenues	$M	79	89	119	123	128	
Other revenues from managed and franchised properties	$M	5 185	6 616	7 118	7 634	8 188	
Expenses							
Owned and leased hotels	% Owned and leased hotels revenues	95%	95%	95%	95%	95%	Historical average as % of Owned and leased hotels revenues
Depreciation and amortization	$M	129	129	130	130	132	See Capex, D&A and Management and Franchise contracts (Appendix 19) for detailed forecast
General and administrative	% Total Revenues	5.51%	5.51%	5.51%	5.51%	5.51%	Historical average as % of total revenues
Reorganization costs	%	0%	0%	0%	0%	0%	Equal to FY2021 nominal value
Impairment losses	%	0%	0%	0%	0%	0%	Equal to FY2021 nominal value
Other expenses	% Other Revenues	58.41%	58.41%	58.41%	58.41%	58.41%	Historical average as % of other revenues
Other expenses from managed and franchised properties	$M	5 185	6 616	7 118	7 634	8 188	This item corresponds to costs related to supporting operations for managed and franchised properties , which are then reimbursed to Hilton. For the forecasted period, these expenses are computed as the historical average of 14.26% of gross room revenues of managed and franchised hotels
Gain (loss) on sale of assets, net	$M	0	0	0	0	0	Zero for the forecasted period
Interest expense	% Total Debt	4.84%	4.84%	4.84%	4.84%	4.84%	Historical average as % of Total Debt
Loss (gain) on foreign currency transactions	$M	0	0	0	0	0	Zero for the forecasted period
Loss on debt extinguishments	$M	0	0	0	0	0	Zero for the forecasted period
Other non-operating income (loss), net	%	0%	0%	0%	0%	0%	Equal to FY2021 nominal value
Income tax benefit (expense)	%	21%	21%	21%	21%	21%	Staturory U.S. federal income tax rate
Net loss (income) attributable to noncontrolling interests	%	0	0	0	0	0	Equal to FY2021 nominal value

Appendix 16: Statement of Financial Position Forecasting Assumptions

	Unit	2022F	2023F	2024F	2025F	2026F	Assumption
BALANCE SHEET							
Current assets							
Cash and cash equivalents	$M	1 455	1 803	2 461	2 764	1 179	In line with the CF statement
Accounts receivable, net	Days	52	52	52	52	52	Revenues t* Historical average of accounts receivable days/365
Prepaid expenses	$M	127	127	127	127	127	Historical average from 2017 to 2021, excluding 2020. Assumed constant for the forecasted period.
Other	$M	167	167	167	167	167	Historical average from 2017 to 2021, excluding 2020. Assumed constant for the forecasted period.
Intangibles and other assets							
Goodwill	%	0%	0%	0%	0%	0%	Equal to FY2021 nominal value
Brands	%	0%	0%	0%	0%	0%	Equal to FY2021 nominal value
Management and franchise contracts, net	$M	816	914	1026	1152	1291	Management and Franchise contracts = Managment and franchise contracts t-1 + Contract acquisition costs - Amortization of contract acquisition costs - Amortization of Managment and franchise contracts recorded at Merger ; See Capex, D&A and Management and Franchise contracts (Appendix 19) for detailed forecast.
Other intangible assets, net	$M	237	275	308	339	367	Other intangibles assets t = Other intangible assets t-1+Capex t - Amortization t. See Capex, D&A and Management and Franchise contracts (Appendix 19) for detailed forecast.
Operating lease right-of-use assets	%	-5.56%	-6.19%	-6.92%	-7.81%	-8.90%	Decrease in accordance with the number of owned/leased rooms
Property and equipment, net	$M	291	277	263	249	234	PP&E t = PP&E t-1 + Capex t - Depreciation t; See Capex, D&A and Management and Franchise contracts (Appendix 19) for detailed forecast.
Deferred income tax assets	%	0%	0%	0%	0%	0%	Equal to FY2021 nominal value
Other	$M	316	316	316	316	316	Historical average from 2017 to 2021, excluding 2020. Assumed constant for forecasted period.
Current liabilities							
Accounts payable	Days	18	18	18	18	18	COGS* Historical average of acounts payable days/365
Accrued expenses and other	$M	1 277	1 277	1 277	1 277	1 277	Historical average from 2017 to 2021, excluding 2020. Assumed constant for forecasted period.
Current maturities of long-term debt	$M	26	26	523	2 660	0	Based on the projections provided in the 2021 Annual Report
Current portion of deferred revenues	$M	350	350	350	350	350	Historical average from 2017 to 2021, excluding 2020. Assumed constant for forecasted period.
Current portion of liability for guest loyalty program	$M	799	799	799	799	799	Equal to FY2019 nominal value
Non-current liabilities							
Long-term debt	$M	8 740	8 740	8 243	5 606	5 647	See Debt (Appendix 20) for detailed forecast
Operating lease liabilities	%	-5.56%	-6.19%	-6.92%	-7.81%	-8.90%	Decrease in accordance with the number of owned/leased rooms
Deferred revenues	$M	845	845	845	845	845	Historical average from 2017 to 2021, excluding 2020. Assumed constant for the forecasted period.
Deferred income tax liabilities	%	0%	0%	0%	0%	0%	Equal to FY2021 nominal value
Liability for guest loyalty program	$M	1 060	1 060	1 060	1 060	1 060	Equal to FY2019 nominal value
Other	$M	853	853	853	853	853	Historical average from 2017 to 2021, excluding 2020. Assumed constant for the forecasted period.
EQUITY							
Preferred stock	%	0%	0%	0%	0%	0%	Equal to FY2021 nominal value
Common stock	%	0%	0%	0%	0%	0%	Equal to FY2021 nominal value
Treasury stock	%	0%	0%	0%	0%	0%	Equal to FY2021 nominal value
Additional paid-in capital	%	0%	0%	0%	0%	0%	Equal to FY2021 nominal value
Accumulated deficit	$M	-5 907	-5 141	-4 241	-3 186	-1 885	Accumulated deficit = Retained earnings t-1 +Net income t - Dividends paid t - Share Repurchase t (See Appendix 21 for Dividends and Share Repurchase detailed forecast)
Noncontrolling interests	%	0%	0%	0%	0%	0%	Equal to FY2021 nominal value

Appendix 17: Revenues Scheme



Source: Author's Analysis

Appendix 18: Revenues Forecasting Assumptions

Revenues in Million $	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026F	Assumption
Franchise and licensing fees	1 321	1 530	1 681	945	1 493	1 668	2 145	2 323	2 506	2 703	See table 1 for detailed forecast
Base and other management fees	324	321	332	123	176	285	356	372	387	403	See table 3 for detailed forecast
Incentive managment fees	222	235	230	38	98	190	238	248	258	269	According to the annual report, incentive managment fees are "generally based on a percentage of the hotel's operating profits". Since the company does not disclose that information, we assumed it as a percentage of the historical Base and other management fees: 66.67%.
Owned and leased hotels	1 432	1 484	1 422	421	598	767	1 159	1 111	1 050	978	See table 4 for detailed forecast
Other revenues	105	98	101	73	79	89	119	123	128	132	Historical average of 3.04% of Franchise and licensing fees plus Base and other management fees, Incentive management fees and Owned and leased hotels
Other revenues from managed and franchised properties	4 727	5 238	5 686	2 707	3 444	5 185	6 616	7 118	7 634	8 188	This item correponds to costs related with supporting opertations reimbursed by property owners to Hilton and are expected to equal Other expenses from maanged and franchised properties. Therefore, for the forecasted period we assumed it to be equal to Other expenses from managed and franchised properties, which were computed as a historical average of 14.26% of Gross room revenues of both Franchise and Management segments.
Total revenues	**8 131**	**8 906**	**9 452**	**4 307**	**5 788**	**8 184**	**10 633**	**11 295**	**11 964**	**12 674**	

Table 1 - Franchise and licensing fees	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026F	Assumption
Nº Rooms	625 674	675 803	729 608	773 982	822 000	870 309	921 033	974 293	1 030 217	1 088 937	See table 2 for detailed forecast
RevPAR	108	111	109	46	74	90	109	111	114	116	According to STR and Tourism Economics (June 2022), the nominal RevPAR is expected to surpass pre-pandemic levels in 2022. However yearly for Hilton, we consider the full recovery to only happen in 2023, since for the first semester the RevPAR value was still considerably below the pre-pandemic level ($95.38). Afterwards, we expect the RevPAR to grow in accordance with the US inflation rate.
Gross room revenue (in $M)	24 755	27 274	28 969	13 023	22 175	28 483	36 569	39 574	42 682	46 017	Nº of rooms* RevPAR*365
Royalty Fee	5.36%	5.64%	5.84%	7.34%	6.80%	5.91%	5.91%	5.91%	5.91%	5.91%	Historical average rate of Franchise and licensing fees to Gross Room Revenue
Franchise and licensing fees (in $M)	1 326	1 537	1 691	956	1 508	1 683	2 160	2 338	2 521	2 718	
Amortization of contract costs (in $M)	-5	-7	-10	-11	-15	-15	-15	-15	-15	-15	Equal to FY2021 nominal value
Total Franchise and licensing fees (in $M)	**1 321**	**1 530**	**1 681**	**945**	**1 493**	**1 668**	**2 145**	**2 323**	**2 506**	**2 703**	

Table 2 - Number of rooms	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026F	Assumption
Total rooms	**856 115**	**912 960**	**971 780**	**1 019 287**	**1 074 791**	**1 128 531**	**1 184 957**	**1 244 205**	**1 306 415**	**1 371 736**	In the first quarterly report of 2022, Hilton estimates a net unit growth of 5% for FY2022, which is considered for the entire forecasted period.
Additions	52 018	56 845	58 820	47 507	55 504	53 740	56 427	59 248	62 210	65 321	
Franchised	625 674	675 803	729 608	773 982	822 000	870 309	921 033	974 293	1 030 217	1 088 937	The number of franchised rooms will grow according to its historical average (2018-2021YE) of added rooms to total rooms: 89.89%
Franchised rooms added	52 270	50 129	53 805	44 374	48 018	48 309	50 724	53 260	55 923	58 720	
% of Franchised rooms added	100.48%	88.19%	91.47%	93.41%	86.51%	89.89%	89.89%	89.89%	89.89%	89.89%	
Managed	208 235	215 437	221 615	225 905	234 640	241 081	247 844	254 945	262 401	270 229	The number of managed rooms will grow according to the its historical average (2018-2021YE) of added rooms to total rooms: 11.99%
Managed rooms added	35 258	7 202	6 178	4 290	8 735	6 441	6 763	7 101	7 456	7 829	
% of Managed rooms added	67.8%	12.7%	10.5%	9.030%	15.7%	11.99%	11.99%	11.99%	11.99%	11.99%	
Owned and Leased	22 206	21 720	20 557	19 400	18 151	17 141	16 080	14 967	13 798	12 570	The number of owned rooms will decrease according to its historical average (2018-2021YE) of reduced rooms to total rooms: -1.88%
Owned and Leased rooms added	-35 511	-486	-1 163	-1 157	-1 249	-1 010	-1 061	-1 114	-1 169	-1 228	
% of Owned and Leased rooms added	-68.3%	-0.9%	-2.0%	-2.4%	-2.3%	-1.88%	-1.88%	-1.88%	-1.88%	-1.88%	

Note: 2017 is not considered as from 2016 to 2017 there was a significant increase/decrease in the number of rooms in the Management and Franchise segment and Owned and Leased segment, respectively due to the spin-off

Table 3 - Base and other management fees	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026F	Assumption
Nº Rooms	208 235	215 437	221 615	225 905	234 640	241 081	247 844	254 945	262 401	270 229	See table 2 for detailed forecast
RevPAR	108	111	109	46	74	90	109	111	114	116	According to STR and Tourism Economics (June 2022), the nominal RevPAR is expected to surpass pre-pandemic levels in 2022. However yearly for Hilton, we consider the full recovery to only happen in 2023, since for the first semester the RevPAR value was still considerably below the pre-pandemic level ($95.38). Afterwards, we expect the RevPAR to grow in accordance with the US inflation rate.
Gross Revenue (in $M)	8 239	8 695	8 799	3 801	6 330	7 890	9 841	10 355	10 871	11 420	Nº of rooms* RevPAR*365
Base and other management fees rate	4.60%	4.43%	4.48%	3.79%	3.21%	4.18%	4.18%	4.18%	4.18%	4.18%	Historical average rate of Base and other management fees to Gross Room Revenue
Base and other management fees (in $M)	379	385	394	144	203	330	411	433	454	477	
Amortization of contract costs (in $M)	-12	-20	-19	-18	-17	-13	-15	-19	-23	-28	Difference between the total estimated amortization contract costs and the amortization of contract acquisition costs deducted from the Franchised segment
Intersegment elimination (in $M)	-43	-44	-43	-3	-10	-32	-40	-42	-44	-46	Historical average of 9.65% of Base and other managment fees
Total Base and other management fees (in $M)	**324**	**321**	**332**	**123**	**176**	**285**	**356**	**372**	**387**	**403**	

Table 4 - Owned and leased hotels	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026F	Assumption
Nº of rooms	22 206	21 720	20 557	19 400	18 151	17 141	16 080	14 967	13 798	12 570	See Table 3 for detailed forecast
RevPAR	136	148	148	41	57	92	148	153	157	160	According to STR and Tourism Economics (June 2022), the nominal RevPAR is expected to surpass pre-pandemic levels in 2022. However yearly for Hilton, we consider the full recovery to happen only in 2023, since during the first semester the RevPAR value was still considerably below the pre-pandemic level ($101.26). Afterwards, we expect the RevPAR to grow in accordance with the European inflation rate.
Hotel room sales (in $M)	1 100	1 173	1 113	289	379	576	871	835	789	734	Nº of rooms* RevPAR*365
Food and beverage and other anciliary goods and services (in $M)	332	311	309	132	182	191	288	276	261	243	Historical average of 33.11 % of Hotel room sales
Covid-19 relief subsidies from international governments (in $M)	0	0	0	0	37	0	0	0	0	0	Zero during the forecasted period
Total Owned and Leased revenues (in $M)	**1 432**	**1 484**	**1 422**	**421**	**598**	**767**	**1 159**	**1 111**	**1 050**	**978**	

Appendix 19: Capex, D&A and Management and Franchise Contracts Forecasting Assumptions

Management and franchise contracts, net	2022F	2023F	2024F	2025F	2026F	Assumption
Beginning Management and franchise contracts, net	758	816	914	1 026	1 152	
Contract aquisition cost (+)	122	156	168	180	194	Historical average of 6.06% of Franchise and licensing fees and Base and other management fees
Amortization of contract aquistions cost (-)	28	30	34	38	43	Historical average of 3.69% of Initial management and franchise contracts
Amortization of Management and Franchise Recorded at Merger (-)	36	28	21	16	13	This item corresponds to assets that were recorded at the time of the Merger thus, it is expected to decrease over time as the years pass by the Merger. Therefore, for the forecasted period it will decrease in accordance with its historical average of -23.03%.
Ending Management and franchise contracts, net	816	914	1 026	1 152	1 291	

Note: The Merger refers to the 2007 transaction when Hilton became a wholly owned subsidiary of affiliates of Blackstone Inc.

CAPEX	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026F	Assumption
Property and equipment	58	72	81	46	35	33	31	29	27	24	Since this caption is mainly related with the maintenence of Owned and Leased properties we considered it to decrease in accordance with the Owned and Leased rooms
Capitalized Software Costs	75	87	124	46	44	90	94	99	104	109	Historical average of Capitalized software costs as % of Total rooms (0.01%)
Total Capex	**133**	**159**	**205**	**92**	**79**	**123**	**125**	**128**	**130**	**133**	

D&A	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026F	Assumption
Depreciation on property and equipment	59	54	60	57	53	47	45	43	41	39	Historical average of 15.49% of Initial Property and equipment
Amortization	277	271	286	274	135	82	84	87	90	93	
Amortization Other Intangible Assets	71	67	84	110	88	46	56	65	73	80	Historical average of 23.73% of Initial Other intangible assets
Amortization of Management and Franchise Recorded at Merger	206	204	202	164	47	36	28	21	16	13	For the forecasted period it will decrease in accordance with its historical average of -23.03%.
Total depreciation and amortization	**336**	**325**	**346**	**331**	**188**	**129**	**129**	**130**	**130**	**132**	

PP&E	2022F	2023F	2024F	2025F	2026F
Initial PP&E	305	291	277	263	249
Capex (+)	33	31	29	27	24
Depreciation (-)	47	45	43	41	39
Ending PP&E	291	277	263	249	234

Other Intangible Assets	2022F	2023F	2024F	2025F	2026F
Initial other intangible assets	194	237	275	308	339
Capex (+)	90	94	99	104	109
Amortization (-)	46	56	65	73	80
Ending other intangible assets	237	275	308	339	367

Appendix 20: Debt Schedule

Table 5 -Debt	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026
Senior secured revolving credit facility, due 2024		-	195	1 690	-	-	-	-	-	-
Senior secured term loan facility with a rate of 1.85%, due 2026	3 929	3 119	2 619	2 619	2 619	2 619	2 619	2 619	2 619	-
Senior notes with a rate of 4.250%, due 2024	1 000	1 000	1 000	-	-	-	-	-	-	-
Senior notes with a rate of 4.625%, due 2025	900	900	900	-	-	-	-	-	-	-
Senior notes with a rate of 5.375%, due 2025		-	-	500	500	500	500	500		
Senior notes with a rate of 5.125%, due 2026		1 500	1 500	1 500	-	-	-	-	-	-
Senior notes with a rate of 4.875%, due 2027	600	600	600	600	600	600	600	600	600	600
Senior notes with a rate of 5.750%, due 2028		-	-	500	500	500	500	500	500	500
Senior notes with a rate of 3.750%, due 2029		-	-	800	800	800	800	800	800	800
Senior notes with a rate of 4.875%, due 2030		-	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Senior notes with a rate of 4.000%, due 2031		-	-	1 100	1 100	1 100	1 100	1 100	1 100	1 100
Senior notes with a rate of 3.625%, due 2032		-	-	-	1 500	1 500	1 500	1 500	1 500	1 500
Finance lease liabilities with a weighted average rate of 5.88%, due 2022 to 2030	233	225	245	252	208	208	208	208	208	208
Other debt of consolidated VIEs with a weighted average rate of 2.15%, due 2022 to 2028	21	17	17	19	26	26	26	26	26	26
	8 700	7 361	8 076	10 580	8 853	8 853	8 853	8 853	8 353	5 734
Less: unamortized deferred financing costs and discount	81	79	83	93	87	87	87	87	87	87
Less: current maturities of long-term debt	46	16	37	56	54	26	26	523	2 660	0
Total long-term debt	8 573	7 266	7 956	10 431	8 712	8 740	8 740	8 243	5 606	5 647
Total LT DEBT + ST DEBT	**8 619**	**7 282**	**7 993**	**10 487**	**8 766**	**8 766**	**8 766**	**8 766**	**8 266**	**5 647**
D Debt		-1 337	711	2 494	-1 721	-	-	-	-500	-2 619

Appendix 21: Dividends and Share Repurchase Forecasting Assumptions

Dividends & Share Repurchase	Unit	2022F	2023F	2024F	2025F	2026F	Assumption
Share Repurchase	$M	440	440	440	440	440	In 2017, Hilton initiated a share repurchase program. Due to the pandemic this program was suspended from March 2020 to March 2022, when the company repurchased 907,000 shares of common stock for approximately $130 million and 1.8 million shares for approximately $265 million in April 2022.For the forecasted period we divided the remaining value available of 2.2Bn from 2020.
Nº of shares repurchased	#M	3	3	3	3	3	Addionally, it was considered that the shares were bought at an average price per share of $132.14, which corresponds to the average daily price per share from 4th January 2021 until 25th July 2022.
Quarterly Dividend per share	$	0.15	0.15	0.15	0.15	0.15	From 2017 to 1Q2020 Hilton paid a regular quartely dividend of $0.15 per share. In May 2022, the company announced a quartely cash dividend of $0.15 to be paid in the second quarter and its intention to resume the regular quarterly payments.
Shares Outstanding	#M	276	272	269	266	262	Nº of shares in t-1 - Nº of shares repurchased in t
Annualy dividends paid	$M	124	163	161	159	157	

Appendix 22: Terminal Growth rate

Different methods were considered to estimate the Terminal growth-rate (g). The selected approach is underlined in light blue.

Stable Growth Model					
Growth rate (g)	**2023F**	**2024F**	**2025F**	**2026F**	**Avg.**
CAPEX	125	128	130	133	
D&A	129	130	130	132	
∆ NWC	260	72	73	77	
EBIT	2 131	2 298	2 468	2 650	
Reinvestment rate	15.21%	3.85%	3.72%	3.76%	
ROE	12.33%	12.66%	13.12%	14.64%	
g	**1.88%**	**0.49%**	**0.49%**	**0.55%**	**0.85%**

PRAT Model					
Growth rate (g)	**2023F**	**2024F**	**2025F**	**2026F**	**Avg.**
Net Income	1 369	1 501	1 655	1 898	
Dividends	163	161	159	157	
Revenues	10 633	11 295	11 964	12 674	
Total Assets	16 176	17 019	17 515	16 136	
Equity	33 921	33 921	33 921	33 921	
(NI-Div)/NI	88.07%	89.25%	90.37%	91.71%	
ROE	4.04%	4.43%	4.88%	5.60%	
NI/R	12.88%	13.29%	13.83%	14.98%	
R/A	65.73%	66.37%	68.31%	78.55%	
A/E	48%	50%	52%	48%	
g	**3.56%**	**3.95%**	**4.41%**	**5.13%**	**4.26%**

Growth rate (g)	2023F	2024F	2025F	2026F	Avg.
Real GDP Growth Rate (%)					
World	3.60%	3.40%	3.40%	3.30%	3.43%
US	2.30%	1.40%	1.70%	1.70%	1.78%
Weighted average as % of 2021 revenues					1.46%
All other regions	4.34%	3.62%	3.50%	3.46%	3.73%
Weighted average as % of 2021 revenues					0.66%
g					**2.12%**
Inflation Rate (%)					
US	2.90%	2.30%	2.00%	2.00%	2.30%
Weighted average as % of 2021 revenues					1.89%
All other regions	6.11%	4.69%	4.32%	4.14%	4.81%
Weighted average as % of 2021 revenues					0.85%
g					**2.74%**
Average Real GDP Growth Rate and Inflation Rate as % of 2021 Revenues					**2.43%**

Appendix 23: WACC Assumptions

Different methods were considered to estimate the Risk-free rate (Rf), Beta (β) and Cost of debt (kd). The selected approach for each of the components is underlined in light blue.

Appendix 23.1: Cost of Equity Estimation

Cost of equity (Ke) - CAPM	2022F	2023F	2024F	2025F	2026F	TV
RFR	2.05%	2.05%	2.05%	2.05%	2.05%	2.05%
ERP	4.83%	4.83%	4.83%	4.83%	4.83%	4.83%
Adjusted default spread	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%
βL	1.16	1.16	1.16	1.15	1.09	1.09
βu	0.96	0.96	0.96	0.96	0.96	0.96
Debt	8 766	8 766	8 766	8 266	5 647	5 784
Market value of equity	33 921	33 921	33 921	33 921	33 921	33 921
Tax rate	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
Ke	**8.27%**	**8.27%**	**8.27%**	**8.21%**	**7.89%**	**7.91%**

Appendix 23.1.1: Risk-Free Rate Estimation

Risk-free rate estimation		Source
Goverment Bond Yields		
U.S. Treasury Bond 10 Years Yield	2.87%	Refinitiv Eikon (6th July, 2022)
U.S. Treasury Bond 30 Years Yield	3.10%	Refinitiv Eikon (6th July, 2022)
10-year monthly average of the U.S. Treasury Bond	**2.05%**	**Refinitiv Eikon (6th July, 2022)**
Survey Estimates		
U.S. RFR	2.70%	Fernandez (May, 2022)

Appendix 23.1.2: Beta Estimation

Beta estimation		Source	Notes
Financial Agencies			
Yahoo Finance (5Y monthly average)	1.17	Yahoo Finance (6th July 2022)	
Eikon (5Y monthly average)	1.24	Refinitiv Eikon (6th July 2022)	
Bloomberg	1.24	Bloomberg (6th July2022)	
Pure-play method from Industry			
βu corrected for cash Hotel/Gaming	1.44	Damodaran (January, 2022)	
D/E	26%		
Debt	8 766		Book value
Market value of Equity	33 921	Yahoo Finance (28th September)	Market Cap
Tax rate	21.00%		
βL - Levered Beta	1.73		
Pure-play method using peers			
βu peers (median)	1.23		Considered the peers identified in the SARD's approach
βL - Levered Beta	1.43		
Regression			
Raw Beta (Regression vs. S&P 500 Index)	1.24		Monthly data for 5Y, from 30th June 2017 to 30th June 2022 (60 obs)
Blume Adjusted Beta	**1.16**		

Appendix 23.1.3: Equity Risk Premium and Country Risk Premium estimation

MRP or ERP and CRP estimation			Source	Notes
MRP Survey Estimates				
U.S.	5.60%		Fernandez (May, 2022)	Average MRP of other countries in which Hilton operates, Fernandez (May, 2022)
All other regions	8.38%			
ERP Financial Agencies				
ERP	7.39%		Bloomberg (June, 2022)	
Damodaran Projections				
	ERP	**Adjusted Default Spread**		
U.S.	4.24%	0%	Damodaran (January, 2022)	Average ERP and Adjusted default spread of all other regions in which Hilton operates
All other regions	7.60%	2.95%		
Weighted average as % of 2021 Total Revenues			2021 Hilton 10-K	Weighted average as % of 2021 Total revenues, by region
U.S. - 82% of 2021 Total Revenues	3.49%	0%		
Other regions - 18% of 2021 Total Revenues	1.34%	0.52%		
ERP	**4.83%**	**0.52%**		

Appendix 23.2: Cost of Debt Estimation

Cost of debt (Kd) estimation		Source	Notes
Interest Expense			
Interest Expense ($M)	424		
Total Debt ($M)	8 766		
Kd	4.84%		
Credit Spread			
RFR	2.05%	Refinitiv Eikon (July, 2022)	
Country Default spread	0.52%	Damodaran (January, 2022)	Weighted average of U.S. and other regions in which Hilton operates by 2021 % of Total Revenues Damodaran (January, 2022)
Operating income ($M)	2 131		
Interest Expense ($M)	424		
Interest coverage ratio	5.02		
Synthetic rating	A2/A	Damodaran data set	
Company default spread	1.18%		
Kd	**3.75%**		

Appendix 23.3: WACC Rate Estimation

Cost of capital - WACC	2023F	2024F	2025F	2026F	TV
Market value of equity	33 921	33 921	33 921	33 921	34 746
Debt	8 766	8 766	8 266	5 647	5 784
Ke	8.27%	8.27%	8.21%	7.89%	7.91%
E/(E+D)	79.46%	79.46%	80.41%	85.73%	85.73%
Kd	3.75%	3.75%	3.75%	3.75%	3.75%
D/(D+E)	20.54%	20.54%	19.59%	14.27%	14.27%
Tax rate	21.00%	21.00%	21.00%	21.00%	21.00%
Pre-tax WACC	**7.34%**	**7.34%**	**7.34%**	**7.30%**	**7.32%**
WACC	**7.18%**	**7.18%**	**7.18%**	**7.19%**	**7.20%**

Appendix 24: WACC Method

Free Cash Flow to the Firm	2024F	2025F	2026F	TV
EBIT	2 298	2 468	2 650	2 714
t	21.00%	21.00%	21.00%	21.00%
EBIT (1-t)	1 815	1 950	2 093	2 144
D&A	130	130	132	135
Capex	128	130	133	136
DNWC	72	73	77	79
FCFF	**1 745**	**1 877**	**2 015**	**2 239**
PV FCFF	1 628	1 634	1 636	46 924

V_L	4 898
Terminal Value	46 924
PV Terminal Value	38 085
Enterprise Value	**42 983**
Debt	**8 766**
Cash & Cash Equivalents	1 803
Non-controlling interest	2
Equity Value	**36 017**
Shares Outstanding	272
Price per Share	**$ 132.25**
Closing price 28/09/2022	**$ 123.67**
Upside Potential	**6.94%**

Appendix 25: APV Method

Free Cash Flow to the Firm	2024F	2025F	2026F	TV
FCFF	1 745	1 877	2 015	2 239
PV FCFF	1 626	1 629	1 631	43 095
Interest Expenses	424	400	273	279
Interest Tax Shield	89	84	57	59
Pv interest tax shield	86	78	51	3 600

Vu	4 886
PV Terminal Value	34 867
Unlevered Intrinsic EV	39 753
VL	215
PV Terminal Value (Tax Shield)	3 223
Intrinsic EV	**43 192**
Cash & Cash Equivalents	1 803
Debt	8 766
Non-controlling interest	2
Equity Value	**36 226**
Shares Outstanding	272
Price per Share	**$ 133.02**
Closing price 28/09/2022	**$ 123.67**
Upside Potential	**7.56%**

Appendix 26: FTE Method

Free Cash Flow to the Equity	2024F	2025F	2026F	TV
FCFF	1 745	1 877	2 015	2 239
Interest expense*(1-t)	335	316	216	221
Target D/D+E	0	0	0	0
CAPEX	128	130	133	136
D&A	130	130	132	135
DNWC	72	73	77	79
FCFE	2 095	2 208	2 242	2 090
PV FCFE	1 935	1 885	1 785	38 146

Equity	5 605
Terminal Value	38 146
PV Terminal Value	30 357
Equity Value	35 962
Shares Outstanding	272
Price per Share	**$ 132.05**
Closing price 28/09/2022	**$ 123.67**
Upside Potential	**6.77%**

Appendix 27: Peers selection

Name	Ticker	Country	Market Cap ($Bn)	Rank	Retun on Capital	Rank	EBIT Margin	Rank	Current Ratio	Rank	Net Debt to EBITDA	Rank	SARD	Focus on Accomodation
Hilton Worldwide Holdings Inc.	**HLT**	**USA**	**36.78**	**29**	**3.04%**	**24**	**16.26%**	**23**	**0.95**	**16**	**5.97**	**14**	**0**	**YES**
InterContinental Hotels Group PLC	IHG	UK	10.72	28	8.48%	28	16.99%	25	1.27	21	3.01	9	17	YES
Marriott International, Inc.	MAR	USA	51.41	30	5.77%	26	11.45%	20	0.57	6	4.53	12	18	YES
Accor SA	AC.PA	France	8.31	25	0.17%	18	14.56%	22	1.17	20	74.40	27	28	YES
Travel + Leisure Co.	TNL	USA	4.20	20	5.37%	25	19.72%	26	3.51	30	6.83	15	28	NO
Wyndham Hotels & Resorts, Inc.	WH	USA	6.93	24	5.97%	27	27.35%	28	1.81	28	3.65	10	29	YES
Choice Hotels International, Inc.	CHH	USA	6.88	23	21.46%	30	40.11%	29	1.34	22	1.46	5	33	YES

Appendix 28: Market-Based Valuation

Peer Group	Enterprise Multiples		Price Multiple
	EV/Sales	EV/EBITDA	P/E
InterContinental Hotel Group PLC	4.36	16.39	22.37
Marriott International Inc	2.7	19.16	25.19
Accor SA	2.52	29.45	44.44
Whyndham Hotels & Resorts	5.33	13.18	21.05
Choice International Ltd	5.6	16.29	23.20
Average	**4.10**	**18.89**	**27.25**

Enterprise Multiple	
EV/Sales	**2023F**
Hilton's Sales	10 633
Peers average	4.10
EV by peers estimated average	43 616
Net debt	6 963
Non-controlling interests	2
Equity value	36 651
Shares Outstanding	272
Price per share	**$ 134.58**
Closing Price (28/09/2022)	$ 123.67
Upside potential	**8.82%**

Enterprise Multiple	
EV/EBITDA	**2023F**
Hilton's EBITDA	2 283
Peers average	18.89
EV by peers estimates average	43 142
Net debt	6 963
Non-controlling interests	2
Equity value	36 177
Shares Outstanding	272
Price per share	**$ 132.84**
Closing Price (28/09/2022)	$ 123.67
Upside potential	**7.41%**

Price Multiple	
P/E	**2023F**
Hilton's earnings per share	5.03
Peers average	27.25
Price per share	**$ 137.03**
Closing Price (28/09/2022)	$ 123.67
Upside potential	**10.80%**

Multiples	EV/SALES	EV/EBITDA	P/E
Price per share	$ 134.58	$ 132.84	$ 137.03
Upside potencial	8.82%	7.41%	10.80%
Average price per share		**$ 134.81**	
Closing Price (28/09/2022)		$ 123.67	
Upside potencial		**9.01%**	

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Level of Risk	SELL	REDUCE	HOLD/NEUTRAL	BUY	STRONG BUY
High Risk	0%≤	>0% & ≤10%	>10% & ≤20%	>20% & ≤45%	>45%
Medium Risk	-5%≤	>-5% & ≤5%	>5% & ≤15%	>15% & ≤30%	>30%
Low Risk	-10%≤	>-10% & ≤0%	>0% & ≤10%	>10% & ≤20%	>20%