

HILTON WORLDWIDE HOLDINGS INC

TRAVEL & TOURISM INDUSTRY

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COMPANY REPORT

17 DECEMBER 2021

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Hilton Equity research

- We establish a December 2022 price target of \$165.72, based mainly, but not exclusively, on DCF model. As Hilton's current share price is \$139 our recommendation is to BUY, given the potential 23% investor return, which also considers dividend yield.
- Covid-19 highly impacted Hilton's business, but despite that revenues are expected to return to pre-covid levels latest by 2024. It is estimated that revenues will increase in the next 10 years at a 11% CAGR.
- Hilton is progressively moving to a fully fee-based company, focusing on the Management and Franchise segments grow, which are expected to generate 74% of revenues by 2026. The company has a very attractive business model as it expands the business with little investments needs, leveraged by its strong brand names valued at \$10.8B, which are protected by its intellectual property sustaining its competitive advantage.
- Currently, Hilton is the fastest growing franchisor in China and for that reason it was forecasted a high grow of franchise agreements in APAC resulting in Hilton to reach 11% market share in this region, in 2026. Despite the 2020 health crisis, Hilton's development pipeline remained healthy, having the second highest number of properties under development, 2,570 worldwide, which reflects the company's long-term growth strategy.

Company description

Hilton Worldwide Holdings Inc is one of the largest hotel group operator in the world, which is engaged in managing, franchising, owning and leasing approximately 6,500 hotel properties and licensing its brands and intellectual property. Its portfolio includes many of the world's best known and most highly regarded hotel brands, comprising in total 18 brand across 120 countries.

Recommendation: **BUY**

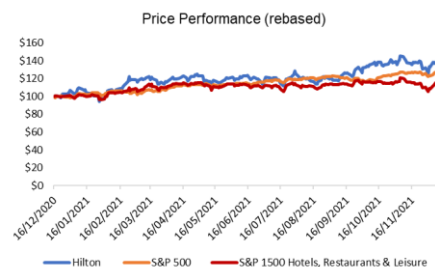
Price Target FY22: **\$165.72**

Price (as of 17-Dec-21) **\$139**

Sources: Bloomberg and own estimates

52-week range (\$)	98.57-154.40
Market Cap (\$m)	38,742
Outstanding Shares (m)	278.7

Source: Bloomberg



Source: Bloomberg

(Values in \$ millions)	2020	2021E	2022F
Revenues	4 307	5 794	8 329
EBITDA	42	766	1 359
EBIT	(418)	504	1 136
Operating margin	-10%	9%	14%
Net profit	(715)	(99)	971
EPS	(2.58)	(0.22)	3.48
ROIC	-5%	5%	14%
Net Debt / Adjusted EBITDA	10	8.7	5.7

Source: Company annual report and own estimates

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY RITA ROCHA AND LUÍSA CARDOSO, MASTER'S IN MANAGEMENT STUDENTS OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS. THE REPORT WAS SUPERVISED BY A NOVA SBE FACULTY MEMBER, ACTING IN A MERE ACADEMIC CAPACITY, WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL.

(PLEASE REFER TO THE DISCLOSURES AND DISCLAIMERS AT END OF THE DOCUMENT)

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Company Overview

Hilton Worldwide Holdings Inc. is a hospitality company, founded in 1919 as a family business in Texas. The company expanded its business around the country and by 1946 Hilton Hotels Corporation was formed and listed on the NYSE. Three years later, Hilton became the world's first international hotel chain with the opening of the Caribe Hilton Hotel in Puerto Rico. In the early 2000s, the company hotel system contained 1,752 properties¹ of which 77% of them were already owned and operated by franchisees. Later in 2007, Hilton Hotels Corp. agreed to an all-cash buyout from the Blackstone Group LP in a \$26 billion² (including debt) deal. In 2017, Hilton spun off its time-share business to create Hilton Grand Vacations and Park Hotels & Resorts to where a large chunk of its physical hotel properties went to, resulting in three independent publicly traded companies, which reduced debt, taxes and spending while aiding its shift to a complete asset-light model.

Nowadays, Hilton is recognized as the most valuable hotel brand worldwide valued at \$10.83B³, controlling a strong and extensive portfolio of 18 brand names such as Doubletree, Embassy Suites or Hampton by Hilton, present mostly in the upper mid-market segment. Its strong property portfolio comprises roughly 7,000 hotels, offering approximately 1 million rooms in 120 countries, being the second biggest worldwide hotel operated by number of hotel rooms. The company owns and leases hotels and resorts, but it mainly engages in managing, franchising and licensing its brands and intellectual property.



Figure 1 - Hilton's portfolio brands

Business Model

Hilton separates its business into two different segments: *Ownership* and *Management and Franchise*. As of 2020, the majority of Hilton's business is fee-based, as a result of the continuous expansion of the number of management

¹ Hilton. 2000. "Hilton Hotels Corporation 1999 Annual Report". Accessed December 8, 2021

<https://ir.hilton.com/~media/Files/H/Hilton-Worldwide-IR-V3/annual-report/1999-Annual-Report-Page-3-Removed.pdf>

² Hilton. 2021. "Hilton History" Accessed December 7, 2021 <https://newsroom.hilton.com/hilton/page/hilton-history>

³ Statista. 2020. "Leading hotel brands based on brand value worldwide in 2020." Accessed October 30, 2021

<https://www-statista-com.eu1.proxy.openathens.net/statistics/732907/most-valuable-hotel-brands-worldwide/>

Hilton's number of hotel properties by business segment, from 2016-2021E

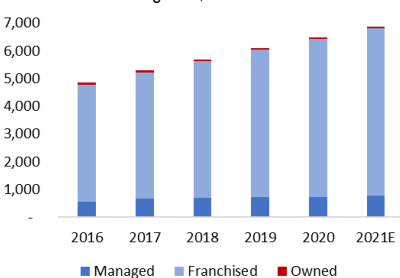


Figure 2 – Number of properties per business segment from 2016-2020

Source: Company's report

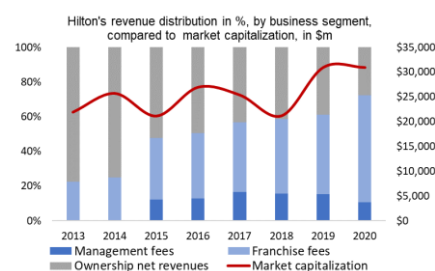


Figure 3 – Revenues distribution, in percentage, compared to Hilton's market capitalization, in millions of \$ in 2013-2020 (Before 2015 the company did not disclose information on managed fees)

Source: Company's report

■ Geographic operations

Despite being headquartered in Virginia, in the United States, Hilton is a worldwide company dividing its properties' locations into five different regions: US, Americas excluding US, Europe, Middle East and Africa (MEA) and Asia Pacific (APAC). Although the company has expanded its operations worldwide, it is still highly dependent on the US business since over 80% of the company's system-wide hotel properties are located in this country, which generates over 83% of revenue.

In terms of the company's overall strategy, there are some lags amongst the different geographic areas. For instance, the company in the US region has already moved to an asset-light portfolio as it owns zero properties and operates mainly as a franchisor. In fact, in America, Hilton has a higher number of franchised hotels than Marriott, which demonstrates its well established position inside this market, accounting for a 12% market share in terms of rooms. On the other hand, in Europe the number of owned hotels is still extremely high, as roughly 11% of the European hotels are owned by the company and in fact this region comprises 79% of total owned hotels by Hilton.

In terms of growth, in the last 5 years Hilton has increased its hotels' operations in all regions, with an overall CAGR of 7%. Hilton's expansion is more impressive in regions such as the MEA and Asia Pacific, with CAGR in terms of properties of

Hilton's hotel properties, per region, in 2020

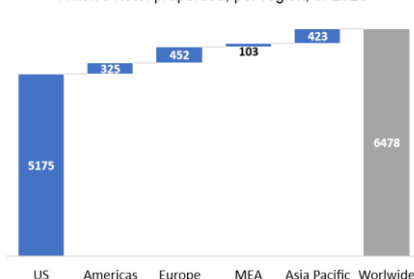


Figure 4 – Number of hotel properties per region in 2020

Source: Company's report

Number of hotel properties, by region, by business segment as of 2020

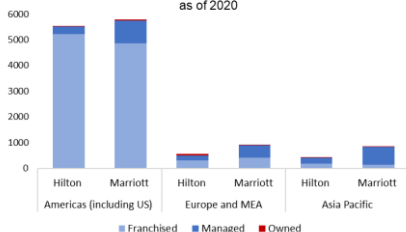


Figure 5 – Hilton and Marriott geographic properties location and business segment distribution, in percentage in 2020

Source: Companies' annual reports

9.5% and 16.2%, respectively, which demonstrates Hilton's higher growth in these areas compared to Marriott's, with 5.4% and 10.6% respective CAGR.

Combining these factors, Hilton's solid franchisor position in the regions it operates and its potential future growth can be highlighted.

Performance Analysis

▪ Revenues growth

Hilton's revenues were growing at a CAGR of 3.4% in the past 3 years before 2020, which is higher than Marriott, with 2.4%. In 2020, revenues decreased significantly, roughly 58% compared to 2019.

Moreover, revenues can be broken down into three main sources: management fees, franchise and licensing fees⁴ and owned and leased hotels revenues, in which the first two sources come from the *Management and Franchise* segment and the latter from the *Ownership* segment.

Hilton's ability to compete effectively for more management and franchise contracts is primarily based on the value and quality of its management services, brand name recognition and reputation, in which Hilton outstands as a result of its long experience in this market. Moreover, the company is also dependent on external factors such as the economic advantages to the property owner of retaining Hilton's management services and/or using its brands and the availability of suitable properties in certain geographic areas, which can be a constraint in saturated markets as the US, in which hotel supply grows at a low steady growth rate of 1.5%⁵, but an opportunity in high-growth markets as in APAC.

On the *Ownership* segment, revenues depend on Hilton's ability to attract individual guests, group reservations and conference business. Furthermore, Hilton⁶ competes for customers based on brand recognition and reputation, but also in factors directly related to the properties such as location, price charged, food and beverages, conference and meeting space, quality of the accommodations, amenities and the ability to earn and redeem loyalty program points. Hilton's hotels are classified differently, but mainly belong to upscale and upper-midscale tier.

⁴ Other revenues from managed and franchised properties were excluded from the revenues analysis as these correspond to cost reimbursed paid to Hilton by property owners. Thus, this caption should be considered as a net value alongside with Other expenses from managed and franchised properties, rather than revenue generated by the business.

⁵ STR. 2019. "2019 Global Hotel Study"

⁶ Hilton Worldwide Holdings. 2020. Form 10-K

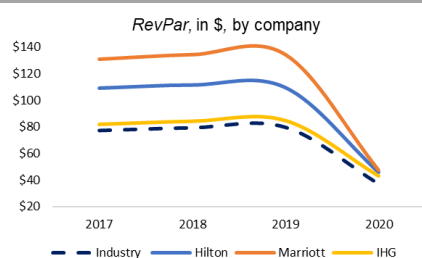


Figure 6 – Industry and main players RevPAR, from 2017-2020
 Source: Companies' reports

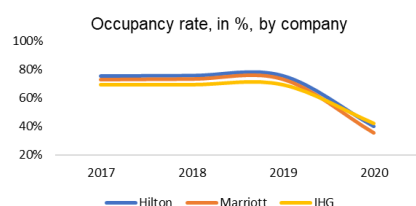


Figure 7 – Main players occupancy rates, from 2017-2020
 Source: Companies' report

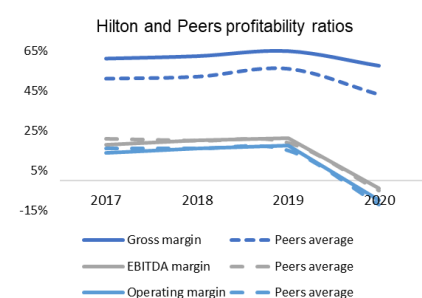


Figure 8 – Profitability ratios Hilton vs peers' average from 2017-2020
 Source: Companies' reports

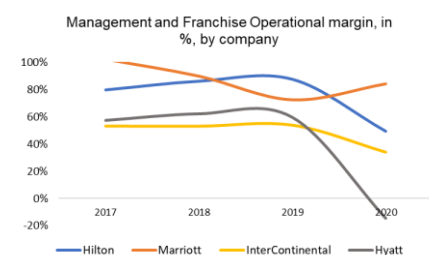


Figure 9 – Hilton and its peers Management and Franchised segment operational margins from 2017-2020
 Source: Companies' reports

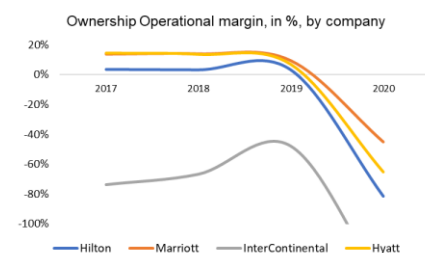


Figure 10 – Hilton and its peers Ownership segment operational margins from 2017-2020
 Source: Companies' reports

Despite having above average revenues growth and a higher brand value, Hilton is still behind Marriott in some important metrics, as the market share in terms of revenues in the *Ownership* and *Management and Franchise* segments and for that reason Marriott is considered Hilton's main competitor.

■ Performance measures

Revenue per available room (*RevPAR*) is one of the most important metrics used in the hospitality industry to measure hotel performance. This KPI is calculated by multiplying the hotel's average daily room rate (*ADR*) by its occupancy rate. Hilton has a higher *RevPar* than the industry's average driven by a significantly higher than average occupancy rate and supported by its bargaining power that allows the company to charge higher *ADR*. Despite that, Marriott, has a higher *RevPar* as a result of a higher *ADR*.

■ Profitability

In the past 4 years, Hilton had constantly positive profitability ratios above its peer's average (considered Marriott, IHG, Hyatt and Wyndham), particularly the gross margin. Despite that, in 2020 it followed the industry tendency in which profitability significantly decreased. Since Hilton and the other hotel companies offer a service, gross margins amongst the industry are extremely high, especially when compared with *EBITDA* margins, in which operational costs, such as marketing, personnel and administrative costs decrease the level of profitability of the business.

By separating the two business units, one could conclude that the *Management and Franchise* segment is extremely profitable, having operational margin of 49%. It could be highlighted that Hilton's *Management and Franchise* segment is amongst the most profitable segments in the sector, despite still presenting lower ratios than Marriott. This difference is explained by Marriott being more efficient in managing net reimbursements, almost matching revenues received from the hotel owners related to reimbursed costs and those related expenses. Whilst Hilton struggles to have a positive or null net other expenses from managed and franchised hotels.

On the contrary, the *Ownership* segment has much lower operational margins and even became unprofitable in 2020, as in the other hotel companies. In this segment, Hilton is slightly less profitable than its peers, averaging 3% operational margin before 2020. Furthermore, fixed costs in owned and leased hotels are estimated to represent approximately 60% of total costs. These expenses include personnel costs, rent, property taxes, insurance and utilities. As a response to low occupancy rates and some hotels operations suspension during 2020, Hilton

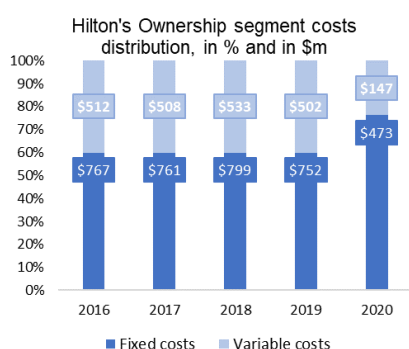


Figure 11 – Ownership segment cost structure, in absolute amounts (millions of \$) and % fixed vs variable costs
 Source: Company's report and own estimates

	Hilton	Marriott
ROIC	-5%	2%
Core ROIC	-1%	3%
Core Operational margin	-5%	18%
Core Asset turnover	16%	15%
Ownership ROIC	-21%	-15%
Management and Franchised ROIC	6%	9%

Figure 12 – Hilton's and Marriott's ROIC decomposition, in 2020
 Source: Company's report and own estimates

	2017	2018	2019	2020
Hilton	64%	139%	N/A	N/A
Marriott	41%	86%	181%	-68%
Peers average	28%	59%	55%	-30%

Figure 13 – Hilton and Marriott ROE (N/A due to negative Equity)
 Source: Companies' reports

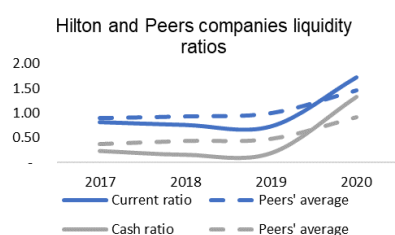


Figure 14 – Liquidity ratios Hilton and its peers' average
 Source: Companies' reports

reduced its hotel staff from 93,000 to 87,000 employees, which resulted in the decrease of fixed costs related to personnel in absolute amounts. On the other side, variable costs represent roughly 35% of owned and leased revenues.

Return on Invested Capital

Hilton's 2020 ROIC was -5% because of the negative net income, being significantly lower than previous years, in which ROIC was consistently around 12%. Moreover, it can be said that the company is creating value as, apart from 2020, Hilton's ROIC is higher than its cost of capital (estimated to be 7.63%).

By analysing the core ROIC is concluded that the negative operational margin is actually what is contributing for the negative ROIC and leading Marriott's ROIC to be more attractive than Hilton's, as Marriott is more profitable than Hilton. Further ROIC breakdown analysis, led to the conclusion that *Management and Franchise* segment has positive returns on investment since it had a 6% ROIC in 2020. As the expansion of this business unit does not require big investment needs, the return of invested capital is very attractive, which is highlighted by the pre-2020 ROIC of 17%. On the contrary, Owned and leased hotels have a constantly lower return on investment, approximately 3% pre-covid and reaching -21% in 2020. The two business segments ROICs are similar to Marriott's return on investment, but always lower.

Investor's return

Since 2017, Hilton implemented a repurchase program with the purpose of returning value to its shareholders buying back shares, using excess cash to finance the program. For instance, in 2019 the buybacks reached approximately 16.9 million shares for \$1.5 billion. Nevertheless, the company still has \$2.2 billion available for the program. Additionally, Hilton pays quarterly cash dividends (\$0.15 per share).

Hilton's ROE was higher than its peers, as a result of the buyback strategy that led Equity book value to decrease to extremely low amounts and reach negative since 2019. Other companies are having the same approach as it is the case of InterContinental and Marriott, which leads the ROE analysis to be misleading.

Liquidity and Debt

In 2020, Hilton was forced to strength its liquidity position as a consequence of the massive profitability decrease that stressed the business health. Furthermore, during 2020 and 2021 Hilton suspended the share repurchase program and its dividend payments in order to preserve cash, increasing its liquidity ratios. Despite pre-2020, in which Hilton presented liquidity ratios, such as the current

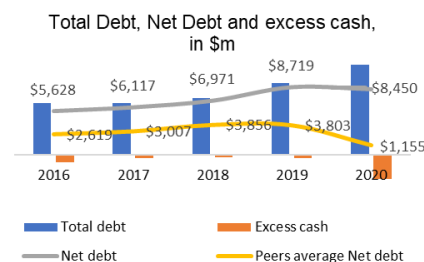


Figure 15 – Total debt, Net debt and excess cash (in million \$) from 2016-2020

Source: Company's report

and cash ratios, below its peers' average, in 2020 it reversed this situation when reinforced its liquidity position and increase the amount of excess cash under its balance sheet.

Hilton's Net Debt has been increasing during the past years, except for 2020 that although Total Debt increased, Net Debt decreased as a result of the company's liquidity injection. Moreover, by 2020 Total Debt reached \$11.6B, led by the urge to issue \$4.4B in bonds. Furthermore, Hilton's ability to make scheduled principal payments and to pay interest depends on its future operating performance, which is affected by the hospitality industry that may be beyond the company's control, such as the Covid-19. Additionally, this level of debt can generate some insecurity about whether the company would be able to meet its financial obligations or not.

As of 2020, 60% of the debt holds a fixed-interests rate and it is mainly issued in USD, which both decrease slightly the possible risk of Hilton's default. Despite that in 2020 *Net Debt to Adjusted EBITDA* reached tremendously high level of 10x as a result of the extremely low *EBITDA* and increased level of debt. In 2020, S&P⁷ downgraded Hilton credit ratings from BB+ to BB, given the negative outlook caused by the pandemic crisis.

In 2020, Hilton has a Net debt level higher than its peers, but despite that its leverage ratio (21%) is in line with the industry's ratio (20%). Likewise, it is estimated that, in the long-term, Hilton will target a leverage ratio that equalizes the industry historical average of 17.5%. Having that in mind, it is expected in 2022 Hilton's debt will be \$10B. Moreover, as it is forecasted that the company will have strong cash flows in the future, it would be possible to further decrease the *Net Debt to Adjusted EBITDA* to pre-2020 levels.

Hotel Industry

In general, hotels are part of the Travel & Tourism industry, which apart from hotel accommodation comprises Package Holidays, Vacation rentals and Cruises. Furthermore, the hotel industry provides short-term lodging, such as hotels and motels, but also accommodation-related services.

The Hotel Industry growth is highly correlated with tourism growth. In the past years, as tourism and international business travel increased exponentially, the number of hotels' stays have seen a huge growth, except for 2020, in which the

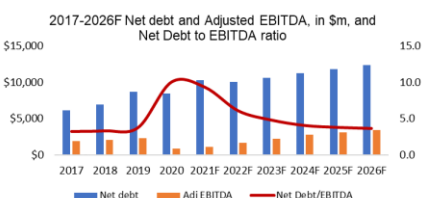


Figure 16 – 2017-2029F Adjusted EBITDA and Net debt (in millions of \$) and Net debt to Adjusted EBITDA ratio, in %

Source: Own estimates



Figure 17 – Number of International tourist arrivals (in millions) compared to combined number of hotel stays in Hilton, Marriott, IHG and Hyatt, from 2013-2020

Source: UNWTO and Companies' reports

⁷ S&P Global. 2020. "S&P downgrades Hilton ratings on coronavirus impact". Accessed December 9, 2021, <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/s-p-downgrades-hilton-ratings-on-coronavirus-impact-57969692>

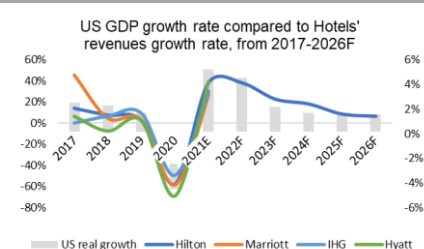


Figure 18 – US GDP growth rate compared to hotels' revenues growth, from 2017-2026F
 Source: Companies reports, IMF

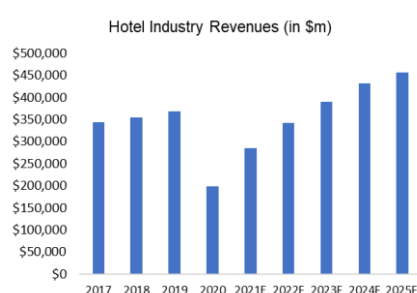


Figure 19 – Hotel industry revenues, in million \$, from 2017-2025F
 Source: Statista⁸

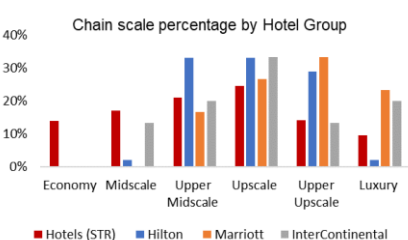


Figure 20 – Hotels properties by scale segment distribution, in percentage
 Source: STR. 2021. "STR Chain Scales"

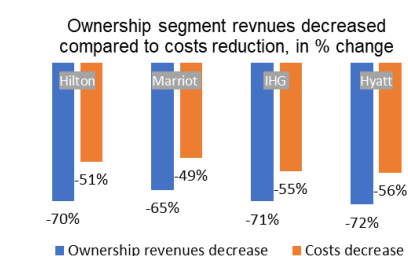


Figure 21 – Ownership revenues decrease is higher than the decrease in costs
 Source: Companies' reports

number of international tourist arrivals decreased by 72% and the number of hotel stays corresponded mainly to domestic tourism. Additionally, the sector is driven by economic growth as Hotels' revenues growth tend to follow the real GDP growth, and population growth, especially the emerging middle class shaping the growth of the hospitality industry.

Given the 2020 economic downturn and COVID-19 direct impact on the industry, hotels' revenues are expected to grow only 3.7%⁸ CAGR 2017-2026. The Hotel industry is mainly dominant in the US, Europe and China. Being China considered the fastest-growing region with 5%⁸ CAGR from 2017-2025.

Hotel brands, according to the Smith Travel Research (STR) classification, can be categorized into six different tiers: Economy, Midscale, Upper Midscale, Upscale, Upper Upscale and Luxury. Hotels are assessed based on their amenities and service level, meaning that as the scale goes up, there is an increase in the comforts offered to the clients. The chain scale breakdown offers a better view of the quality of each brand and its positioning amongst competitors. Moreover, the main players in this industry have diversified brand portfolios, containing brand names from different tiers. For instance, amongst the 18 brand names offered by Hilton, the majority is recognized as upper midscale, upscale and upper upscale, but the company also offers hotel brands for different customers segments, such as in the luxury or midscale.

Two important aspects to mention about this industry is its seasonality and cyclicity. Firstly, the Hotel industry is subject to fluctuations in revenues due to seasonality and national or regional special events, generating unevenly revenues distribution amongst the different quarters of the year. For that reason, hotel's business performance may be difficult to predict and quarterly results could fall below investor expectations. Furthermore, the ramp-up process of new hotels can be delayed during low seasons, which may negatively affect revenues and profitability. Secondly, the industry is cyclical, which means it tends to overreact to changes in key macroeconomic indicators, such as the GDP. For that reason, hotel's occupancy levels, supply and demand for rooms follow economic cycles, resulting in significant volatile results for owners and managers of hotel properties. Economic downturns generally affect the results of the *Ownership* segment more significantly than the results of *Management and Franchise* segment due to the high fixed costs associated with operating an owned or leased hotel. As a result of such fixed costs, in a negative economic environment, the rate of decline in earnings can be higher than the rate of decline

⁸ Statista Mobility Market Outlook. 2021. "Travel & Tourism Report 2021."

in revenues. Hotel owners experienced a downturn in the current industry cycle driven by the COVID-19 pandemic. However, as in 2021 vaccines and treatments for COVID-19 become more widely available it is expected to enter into a recovery phase in the industry cycle.

Competitive set

The Hotel industry is highly dominated by two big players, Hilton and Marriott, which together account for almost 50% of the Lodging industry total revenue, being Marriott the market leader. The remaining top six hotel groups have market shares lower than 10% each, contributing to a more segmented industry. In the last 4 years, smaller hotel chains increase their importance inside this industry. Additionally, brand hotel groups are especially important in the US, comparatively to other independent hotels. In 2020, brands comprised 75%⁹ of US hotel revenues, which represented an increase from the previous year.

The two Chinese hotel group operators, Huazhu and Wyndham, have seen a massive growth in the past years, levered by the exponential growth of the hotel industry in Asia Pacific, which resulted in the two companies amongst with Marriott to have the largest number of properties under their portfolio.

Apart from Choice Hotels and Wyndham that are primarily hotel franchisors, leading them to own an excessively large number of properties compared to their small market share, all the other hotel operators are shifting to an asset-light portfolio, which is highlighted by the increase in the management and franchise contracts and by the decrease in the number of owned and leased hotels.

Covid-19 on the Hotel industry

Impact

COVID-19 pandemic highlighted the fragile nature of the hotel industry to external shocks. Although it has affected almost every business sector, the hotel industry is amongst the sectors that suffered the most substantial damages, having experienced the most devastating year on record in 2020 as a consequence of the COVID-19 pandemic, in which travel restrictions and stay home rules imposed by governments resulted in historically low occupancy rates declining to 44%¹⁰ in the US, massive job loss and hotel closures across the world. It is safe to say that these restrictions, made to ensure people's safety,

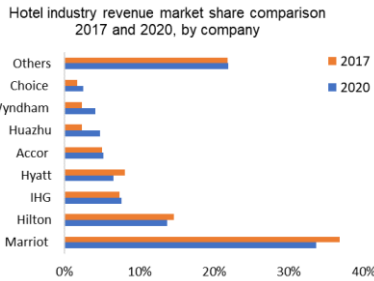


Figure 22 – Lodging industry market share by revenue, in 2020

Source: Bloomberg

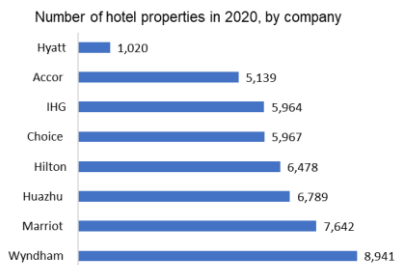


Figure 23 – Number of properties per hotel group in 2020

Source: Companies' reports

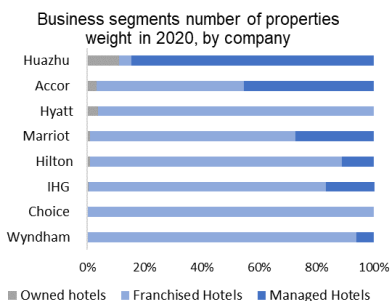


Figure 24 – Hotel industry business segments weights, in 2020

Source: Companies' reports

⁹ McKinsey. 2021. "Recovery of the US hospitality industry." Accessed November 7, 2021, <https://www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/the-path-to-recovery-for-us-hospitality>

¹⁰ AHLA. 2021. "AHLA's state of the hotel industry 2021."

have disrupted worldwide tourism, having a significant negative effect on the hotel industry.

In 2021, many challenges remained for the industry, including new strains of the coronavirus and a slow vaccine rollout in some countries. According to several studies¹⁰, travel is not expected to return to 2019 levels until 2024, meaning that although it will return, the recovery for the hotel industry will be slow and take longer when compared to other sectors.

According to UNWTO¹¹ (United Nations World Tourism Organisation), due to low consumer confidence, slow virus containment and the above-mentioned travel restrictions, international travel has stagnated and lead domestic tourism to become the driver of recovery of this industry. It is estimated that international arrivals have declined 74% from 2019 and 2020, resulting in a loss of around \$1.3 trillion in global export revenues. Although it is expected that international tourism rises again in 2021, it could take 2 and half to 4 years for it to return to 2019 levels.

Another visible effect of COVID-19 is on business and leisure travel. Leisure travel is expected to return first, with consumers optimistic about national distribution of a vaccine and their ability to travel again this year. At the same time, business travel — which comprises the largest source of hotel revenue — remains nearly non-existent, as companies will continue adopting virtual solutions. Although it is expected its slow return in the second half of 2021, tourists will demand more flexibility when it comes to cancelation and changing fees, which strongly affected the deferred revenues in Hotel's balance sheets.

Lastly, it is also important to evaluate the impact depending on the hotels' business models. According to a Heliyon journal's study¹², although the pandemic's impact is significant across all types of hotels, this effect is substantially lower for hotels that follow along asset-light strategies and this can already be observed in 2020, where the two hotels that had the lowest decrease in revenues were Choice Hotels and Wyndham that follow a strictly asset-light business model, operating only as franchisors. This strategy, which Hilton is moving towards to, helps to mitigate the effects of downturns, as there are no high fixed costs as the traditional hotel models, since there is no ownership of properties, creating more flexibility for businesses during difficult times.

COVID-19 impact on Hotel Groups, by % decrease in revenues

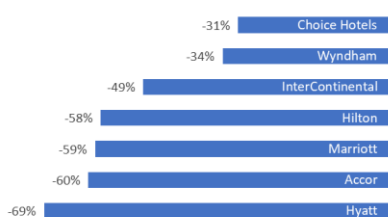


Figure 25 – Hotels revenue decrease from 2019 to 2020, in percentage
 Source: Companies' reports

¹¹ UNWTO. 2021. "2020: Worst Year in Tourism History with 1 Billion Fewer International Arrivals." Accessed October 27, 2021, <https://www.unwto.org/news/2020-worst-year-in-tourism-history-with-1-billion-fewer-international-arrivals>

¹² García-Gómez, C.D., Demir, E., Díez-Esteban, J.M., & Bilan, Y. 2021. "The impact of COVID-19 outbreak on hotel's value compared to previous diseases: the role of ALFO strategy." *Heliyon Journal*, volume 7

- Travel and Tourism after covid-19

It is clear that the hotel industry has taken a huge hit with this pandemic, meaning that it will take some time before the sector starts operating the way it used to in 2019. Furthermore, since mid-2021 the recovery momentum¹³ has weakened due to the resurgence in COVID infections from the Delta and Omicron variants, resulting in countries imposing back new travel restrictions causing the decrease in the number of hotel stays. However, as the vaccination process is moving forward, it is expected that health measures take a shorter term than in 2020.

Due to companies adopting new virtual methods during the pandemic that make it possible to work from home, business travel will never fully return to what it was. Moreover, according to a study made by EY, 34%¹⁴ of pre-COVID business travel could potentially be permanently replaced by technology.

Industry trends

- Online booking platforms

A trend that has appeared in the hotel industry in the last decade and shows no signs of disappearing any time soon is online booking platforms. Online travel agencies (OTA) are third-party websites that provide data about several accommodations, making it easier for customers to compare prices and amenities, find discounts and has the possibility to book directly from that website, facilitating a traveler's decision process. With the appearance of these platforms, direct bookings from hotel websites or via telephone have decreased, leading to a rise in hotel's dependency on these platforms, in which they pay a fee for bookings made through the OTAs. Another important feature of this trend are the reviews made on these websites. According to a study made by Statista¹⁵, in 2020, in the US, 92% of respondents stated that negative reviews made them less likely to purchase a service/good. In the hotel industry, reputation is one of the leading factors that influence people when choosing where to stay, making reviews written by guests on OTAs a determinant factor when selecting an accommodation. Moreover, as stated in the Travel and Tourism Report made by Statista¹⁶, it is expected that revenues that come from online channels grow at a faster pace than the whole market. It is forecasted that

¹³ Euromonitor International. 2021. "Global Economy in 2022: Getting Back on Track with Challenges Ahead"

¹⁴ EY. 2021. "How to better forecast recovery in the hotel industry?" Accessed November 1, 2021, https://www.ey.com/en_us/real-estate-hospitality-construction/how-to-better-forecast-recovery-in-the-hotel-industry

¹⁵ Statista. 2021. "Effect of online reviews on local business customer opinion 2020." Accessed November 1, 2021, <https://www.statista.com/statistics/315751/online-review-customer-opinion/>

¹⁶ Statista Mobility Market Outlook. 2021. "Travel & Tourism Report 2021."

until 2026, online generated sales will have a CAGR of 5.69%, whereas offline generated revenue is estimated to have a -1.28% average growth rate per year. This illustrates how the market is evolving, with online channels continuously gaining relevancy and playing an important role on hotels' ability to capture and increase revenues.

- Alternative accommodation

During the last decade, innovative online platforms such as Airbnb accommodate millions of tourists per year, shifting perceptions of hospitality and creating friction with the traditional hotel industry. Furthermore, Guttentang and Smith¹⁷ concluded that Airbnb guests use the service as in place of a hotel, especially of mid-range hotels or as a budget hotel/motel substitute.

When considering key hotel attributes such as cleanliness and security, it was concluded that Airbnb significantly outperformed economy hotels but significantly underperformed upscale hotels. However, when considering attributes central to Airbnb's unique value proposition (experiential attributes and low price), Airbnb was expected to significantly outperform all three hotel classes. In fact, Airbnb can be considered a disruptive business for mid-range and economy hotels, though is still extremely different from the hotel services offered in the upscale hotels. According to the International Journal of Hospitality Management¹⁸, although it was stated that Airbnb can act as a supplement for hotels, it also proves the disruptive effect that it has on the hotel industry, with prices influencing the demand for hotels. This is shown through the analysis and conclusion that, on the one hand, Airbnb properties pricing have a positive effect on hotels *RevPAR*, meaning that the if prices listed on Airbnb increase, it will increase the *RevPAR* of hotels. On the other hand, satisfaction scores on this platform have a significant negative effect on the *RevPAR* of hotels, this means that an increase on the satisfaction score on the properties on Airbnb leads to a decrease on the *RevPAR* of hotels.

This study goes deeper and also analyses how this relationship varies across the different scales of hotels, pointing to a significantly positive influence between prices on Airbnb and the *RevPAR* of hotels in the luxury scale, where Hilton is included.

¹⁷ Guttentang, Daniel. A., and Smith, Stephen. 2017. "Assessing Airbnb as a disruptive innovation relative to hotels: Substitution and comparative performance expectations." *International Journal of Hospitality Management*, Volume 64

¹⁸ Blal, I., Singal, M., & Templin J. 2018. "Airbnb's effect on hotel sales growth." *International Journal of Hospitality Management*, volume 73

▪ Sustainability

Over the last years, society has become more environmentally conscious and concerned about sustainability issues. Therefore, this has impacted how several sectors operate, including the hotel industry. Given that this topic is now influencing how guests choose their hotel, the number of sustainable hotels is rising.

The Sustainable Travel Report¹⁹ made by Booking.com shows that sustainability has an influence on consumer choice. According to the research, 61% of travelers want to travel more sustainably in the future and 49% have stated that COVID-19 has influenced them to make positive changes in their lives and choosing sustainable hotels is one example of how they can meet their sustainability goals while travelling. Another important result of this report that can point to this trend's increasing influence on this market is the increase of people that want to stay in a sustainable accommodation at least once in the upcoming year, with 62% having this objective in 2016 and 81% in 2021, representing a growth of 31%.

▪ Technology

As a result from the COVID-19 pandemic, the use of technology to minimize unnecessary contact with guests has increased. The adoption of this use of technology might lead to hotels regain guests and attract new ones. According to a Deloitte study²⁰, 96% of hoteliers responded that the main action to build trust with guests is through focusing on health and safety measures.

Being extra careful with the cleanliness of the facilities is extremely important and investing in contactless technology is becoming a major step as it reassures guests further of the commitment the hotel is making towards their safety, which is in accordance with a survey made by Skift²¹, where 71% of travellers stated that they are more likely to stay at a hotel with self-service technology in the future.

¹⁹ Booking.com. 2021. "Sustainable Travel Report". Accessed December 5, 2021, <https://globalnews.booking.com/download/1037578/booking.comsustainabletravelreport2021.pdf>

²⁰ Deloitte. 2021. "Hospitality sentiment survey (COVID-19)". Accessed November 28, 2021, <https://www2.deloitte.com/content/dam/Deloitte/mu/Documents/life-sciences-health-care/mu-hc-mauritius-hospitality-survey-noexp.pdf>

²¹ Skift. 2021. "Five Contactless hotel technology trends for 2021". Accessed December 1, 2021, <https://skift.com/wp-content/uploads/2020/12/Five-Contactless-Hotel-Technology-Trends-for-2021.pdf>

Although it is not cheap to implement and maintain these types of changes, investing in technology now will pay off in the future, as it will build trust with guests and, consequently, increasing demand for rooms.

Loyalty programs and Strategic partnerships

Hotel groups are globally competing in order to retain the most valuable customers, the repeat travellers, as those generate a disproportionate portion of revenue. For that reason, Loyalty Programs (LP) started to be widely used by hotels, especially those present on the midscale and upwards chains. LP can boost hotel's bookings and revenues, give valuable insights about the customer's preferences and ultimately improve guests' experience.

Nevertheless, literature is divided on whether LPs are beneficial to a company's financial performance. According to Chu et al.²² the programs introduce a new currency, the points, through which customers transact with hotels. Those represent a promise for a future service thus represent a liability on the hotels' balance sheets. As such, the value of points can substantially impact firm's revenues, as when the value points increase, they are translated into deferred revenue, which directly hurts profits. In 2020, Hilton's liabilities for LP amounted for \$2.5B and Marriott's for \$6.2B for Marriott, representing respectively 57% and 59% of their revenues.

Hua et al.²³ showed that loyalty program expenses had a positive impact on RevPAR, ADR and Occupancy. Additionally, Lee et al.²⁴ concluded that a 1% increase in LP spending, in relation to overall sales and marketing expenditures, translated to an average increase of 12% in operating income over revenue.

Hilton Honors (HH), Hilton's loyalty program jumped from 36 million members in 2012 to more than 118 million members in 2021. Moreover, Hilton's loyalty program is boosting the number of sold nights as in 2019 HH members represented over 60% of the hotel chain's occupancy²⁵. Under the scope of the program, Hilton has developed over 70 partnerships mainly with companies belonging to complementary sectors such as airlines, rail and car rental companies or credit card providers. Recently, Hilton pre-sold HH points to

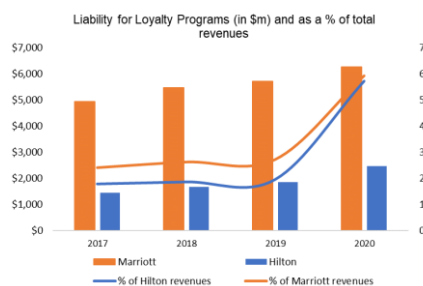


Figure 26 – Hilton and Marriott liabilities for LP, in million \$; liability LP as a percentage of total liabilities
Source: Companies' report

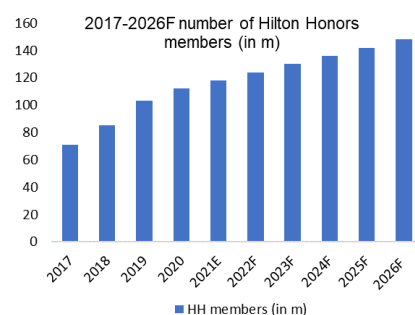


Figure 27 – Hilton Honors number of members, in millions, from 2017-2026F
Source: Company's report and own estimates

²² Chun, So. Y., Iancu, Dan., and Trichakis, Nikolaus. 2019. "Loyalty Program Liabilities and Point Values". *Manufacturing & Services Operations Management* 22(2).

²³ Hua, Nan, Wei, DeFranco, Agnes L., and Wang, Dan. 2018. "Do loyalty programs really matter for hotel operational and financial performance?" *International Journal of Contemporary Hospitality Management*, Vol. 30 No. 5

²⁴ Lee, Johny J., Capella, Michael L., Taylor, Charles R., Luo, Mi, and Gabler, Colin B. 2014. "The financial impact of loyalty programs in the hotel industry: A social exchange theory perspective". *Journal of Business Research*

²⁵ Sanchez, Luiz. 2019. "How Hilton's Growth Strategy Is Delivering Strong Results." Accessed October 28, 2021, <https://www.nasdaq.com/articles/how-hiltons-growth-strategy-is-delivering-strong-results-2019-11-29>. r

American Express for \$1 billion in cash and became the first LP that allows members to use their points in Amazon. By enlarging the number of potential rewards associated with becoming a member of HH, Hilton plans to retain and attract new customers and further increase its bookings.

Furthermore, given the travel restrictions imposed in 2020, Hilton has extended certain benefits under its program, such as the period of time before points expire throughout 2022. In addition to that, the number of HH members is expected to continue to grow, forecasted to reach 148 million members by 2026. These two effects will contribute to the increase of Hilton's liability for LP in dollar amounts and as a percentage of revenues.

Additionally, the LP allows Hilton to eliminate some intermediaries in the booking process as members book directly their stay in Hilton's website or using their mobile phone, where they also have other functionalities such as unlocking their door with a Digital Key.

Forecasting

Growth strategy

A relevant portion of Hilton's growth is out of its control, as it is ultimately related to domestic and international travel and tourism. However, Hilton has set three crucial objectives for its progressive and sustainable growth. Firstly, the company growth depends on the ability to maintain its strong and global leading brand hotel portfolio, which is protected by Hilton's intellectual property.

Secondly, in addition to its current hotel portfolio, the company is committed to sustain and expand its share in the global hospitality industry through its development pipeline. By the end of 2020, Hilton had nearly 2,570 hotels in its development pipeline, of which the majority is already under construction and it is expected to be added to Hilton's system within the following 6 years. Hilton has the second biggest development pipeline inside the industry as it is expected to open 371,315²⁶ rooms. The four main players Hilton, Marriott, InterContinental and Accor account for 55% of all projects in the global pipeline, of which Hilton is responsible for 16% of the total rooms, according to Lodging Econometrics²⁷. Around 37% of Hilton development pipeline is located in the APAC, having the

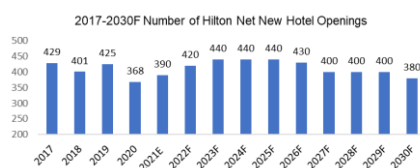


Figure 28 – Net new hotel openings
Source: Own estimates

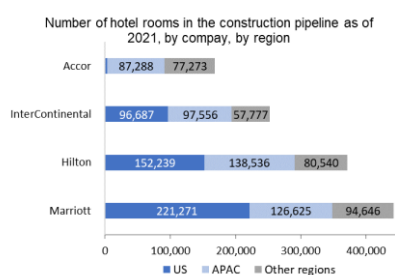


Figure 29 – Number of hotel rooms in the development pipeline in 2021, by company, by region

Source: Statista, Accor Global Development Summary March 2021, Lodging Econometrics

²⁶ Statista. 2021. "Number of hotel rooms in the construction pipeline worldwide as of March 2021, by company." Accessed November 27, 2021 <https://www-statista-com.eu1.proxy.openathens.net/statistics/472616/hotel-companies-rooms-in-pipeline-worldwide/>

²⁷ Lodging Econometrics. 2021. "At year-end 2020, the Global Hotel Construction Pipeline decreased slightly year-over-year." Accessed December 12, 2021 <https://lodgingeconometrics.com/at-year-end-2020-the-global-hotel-construction-pipeline-decreased-slightly-year-over-year/>

highest number of new rooms under construction in the region. However, roughly 41% of Hilton's development rooms are to be located in the US, region where Marriott is the market leader and is expected to open the higher number of rooms.

Finally, Hilton long-term strategy has been to progressively shift to a fee-based company, expanding its business worldwide with the minimal capital investment.

Business Model

For a truly fair allocation of revenues and costs, in addition to the two business units already highlighted - *Ownership* and *Management and Franchise* - a third core unit can be introduced. For that reason, corporate items will be allocated to *Headquarters*.

■ Management and Franchised segment

In this segment, Hilton generates revenues by collecting monthly fees settled by contracts with third-party hotel owners in exchange for Hilton's brand name and/or management expertise. Furthermore, Franchise and Management revenues can be analysed separately.

Franchising

Hilton is a recognized global leader in hotel franchising attracting multiple investors and hotel owners to operate under its brand name. Franchise contracts have been growing significantly at a 6% CAGR from 2016-2020 leading Hilton to have 5,702 franchised hotel properties in 2020. Hilton offers its franchisees value through its portfolio of 18 brands. Foremost, Covid-19 has reinforced that global and recognizable brand names matter when it comes to customer confidence. Thus, the benefits of joining Hilton worldwide system can reassure guests of consistency in their stay experience and that the appropriate health and safety protocols are in place. For that reason, even under the pandemic crisis, Hilton continued to expand its franchise agreements.

In the US, Hilton had established almost 5,000 franchised hotels by 2020, which represented 70% of its worldwide franchise contracts. Furthermore, in this country, Hilton has a well-established franchisor position, accounting for roughly 12% market share, in terms of rooms. According to Lodging Econometrics²⁸, the total US construction pipeline stands at 650,222 rooms. Moreover, Hilton's franchise agreements are expected to increase moderately in the US, meaning only the required amount in order to maintain its current share, which

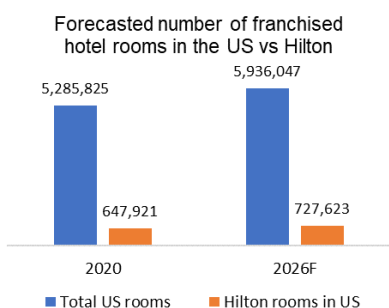


Figure 30 – US and Hilton number of franchised rooms, by 2020 and 2026F
 Source: Lodging Econometrics, Hilton's annual report, Statista

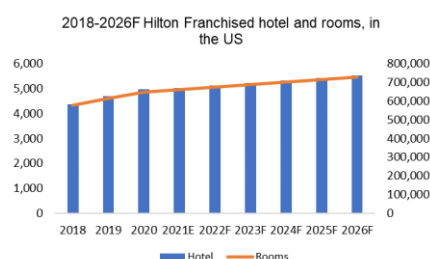


Figure 31 – Number of franchised hotels and rooms in the US, from 2018-2026F
 Source: Own estimates

²⁸ Lodging Econometrics. 2021. "United States Construction Pipeline Trend Report"

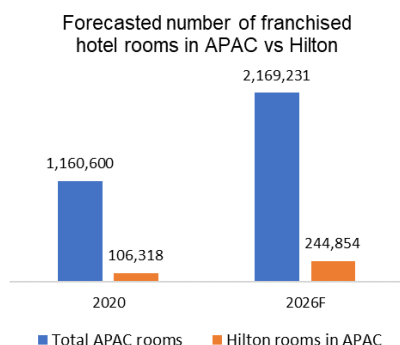


Figure 32 – Asia Pacific and Hilton number of franchised rooms, by 2020 and 2026F
 Source: Lodging Econometrics. 2021. “Asia Pacific Construction Pipeline Trend Report”, Own estimates, Company’s report

corresponds to an increase of approximately 80,000 franchised rooms during the next 6 years. For that reason, the number of rooms under franchise contracts is expected to grow at only 2% CAGR 2020-2026 in the US.

In contrast, Hilton is the fastest growing hotel company in China as it has 116,446²⁹ rooms under the development pipeline. Likewise, there are, in the Asia Pacific region, multiple opportunities to initiate new franchise contracts as according to Lodging Econometrics³⁰, there are in total more than 1 million rooms in the development pipeline in this region, of which 14% correspond to Hilton’s under development portfolio, stressing the company’s expected growth in this market.

As of 2021, Hilton announced³¹ the launch of its large-scale franchise model in China, focusing on the expansion of the Hilton Garden Inn brand. The business model will allow hotel owners in China to benefit from Hilton’s innovative commercial strategies and extensive supportive network, as the company welcomes investors and owners to explore franchising opportunities with its award-winning upscale focused-service brand. Furthermore, it is forecasted that Hilton’s franchised rooms in Asia Pacific will massively grow within 2020-2026 at a 33% CAGR. After the high growth period, Hilton will continue to increase the number of franchise agreements but at a lower rate since the market will be more saturated and Hilton has reached a solid position in the region by then. By 2026, Hilton is forecasted to reach 11% market shared relatively to the number of rooms, which corresponds to an increase compared to 9% in 2020.

By 2026, it is forecasted that worldwide Hilton will have approximately 8,000 franchised hotels. The number of rooms under franchising agreements are estimated to grow at 5% CAGR 2020-2026 mainly driven by the Asia Pacific expansion, though 65% of the franchised hotels will still be located in the US.

Even though the money collected by Hilton in its contracts is a percentage fee based on the gross revenues generated by its franchisees, it can be difficult to estimate it given each contract particularity. For that reason, in our approach we used the average monthly fee received by Hilton for each franchised room, in gross \$ amount rather than a percentage over each underlying hotel gross sales.

Having said that, in 2020 Hilton received, on average, \$250 per available franchised room per month, which has increased at a 4% CAGR from 2016 to 2020

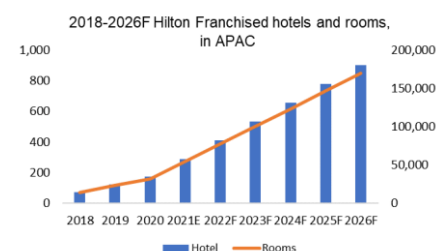


Figure 33 – Number of franchised hotels and rooms in the Asia Pacific, from 2018-2026F
 Source: Own estimates

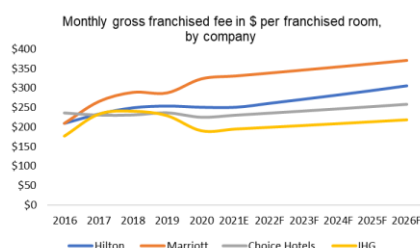


Figure 34 – Gross monthly fee charged, in \$, by company. Assumed US inflation growth from 2021 onwards for the fee charged by Marriott, IHG and Choice Hotels
 Source: Own estimates

²⁹ Hospitalitynet. 2021. “China’s Hotel Construction Pipeline Ends Q1 2021 with 3,440 Projects/656,828 Rooms.” Accessed November 27, 2021, <https://www.hospitalitynet.org/news/4104725.html>

³⁰ Lodging Econometrics. 2021. “Asia Pacific Construction Pipeline Trend Report”

³¹ Hilton. 2021. “Hilton Launches Large-Scale Franchise Model in Asia Pacific.” Accessed December 12, 2021, <https://newsroom.hilton.com/hilton-garden-inn/news/hilton-begins-large-asia-pacific-franchise-model>

2020 as a result of Hilton's powerful market position as a franchisor allowing for better contract agreements. Hilton's franchised gross fees are lower than Marriott's and are expected to continue below, even under the possibility of Marriott's fee to only increase annually at US inflation rate, which reflects the leader position of this company. Until 2026 Hilton's fees are expected to increase by 4% annually, afterwards, the price is expected to move at 2% which is slightly below the US inflation rate of 2.3%³².

The occupancy rate, which reflects the demand for Hilton's guest rooms, was drastically affected by Covid-19. In 2021, Hilton's occupancy rate was still low, 56%, compared to pre-pandemic levels explained by the new corona variants, home office, travel restrictions and consumer's lack of confidence. STR projections³³ consider 2024 as the "finish line" for the full recovery of the hotel industry. In the meantime, occupancy rate is expected to progressively increase as the wide distribution of Covid-19 vaccines will increase consumer confidence³⁴ and help restore travel demand. The pace of the recovery varies from region, being the US and APAC the regions where by 2021 the occupancy rate was closer to pre-pandemic levels, 60% and 50% respectively. Since in the short-term US represents the majority of the business, in the next years system-wide occupancy rate is focused on the US trajectory. Additionally, recovery is uneven with some leisure-driven markets ahead of where they were pre-pandemic and consumers putting their faith in brands they trust³⁵ such as Marriott, Hilton and InterContinental.

Furthermore, Hilton's occupancy rate is expected to return to its percentage level, 75%, by 2024. Since Hilton's occupancy rate is already extremely high when compared to its peers, it will be extremely difficult to increase this level, especially when considering that hotel's demand is affected by several external factors. Considering Hilton's highly recognized brand name amongst travellers, occupancy rate is expected to remain at 75%. Foremost, franchise and license fees are forecasted to have a high growth period from 2020 to 2026 and afterwards converge an annual 3.3% growth rate.

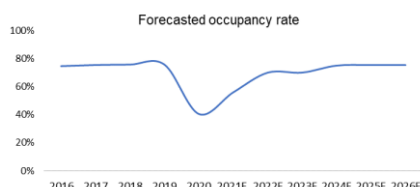


Figure 35 – Forecasted Franchised and Managed rooms occupancy rate, from 2016-2026F

Source: Own estimates

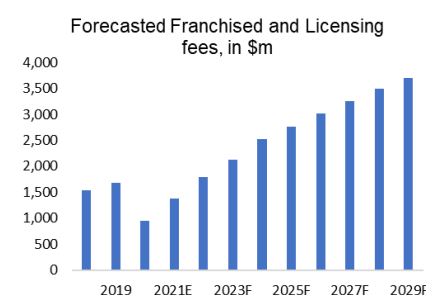


Figure 36 – Franchised and licensing fees from 2018-2029F, in million \$

Source: Own estimates

Revenues growth	
[2016-2019]	15.5%
[2020-2026F]	21.3%
[2027F-2036F]	4.9%
2036F onwards	3.3%

Figure 37 – Franchised and licensing fees growth

Source: Own estimates

³² International Monetary Fund. 2021. "World Economic Outlook (October 2021)." Accessed November 29, 2021, <https://www.imf.org/external/datamapper/PCPIPCH@WEO/USA>

³³ STR & TE Lift. 2021. "U.S. Hotel Forecast, Lessen Growth Projections For 2022"

³⁴ AHLA. 2021. "AHLA's state of the hotel industry 2021"

³⁵ PwC. 2020. "How to restore confidence in travel during an uncertain time." Accessed November, 2021, <https://www.pwc.com/us/en/industries/consumer-markets/library/how-to-restore-confidence-in-travel-during-covid-19.html>

Management

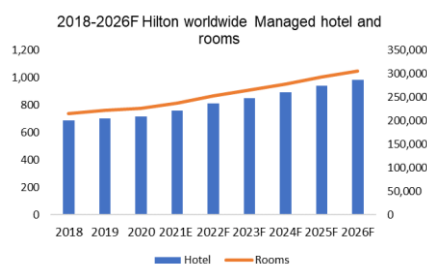


Figure 38 – Number of managed hotels and rooms from 2018-2026F

Source: Own estimates

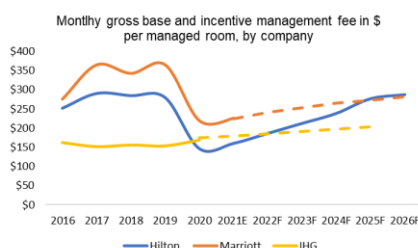


Figure 39 – Monthly incentive and base management fee charged by managed room, in \$. Computations on Marriott's and IHG gross fee growth based on the world inflation rate

Source: Own estimates

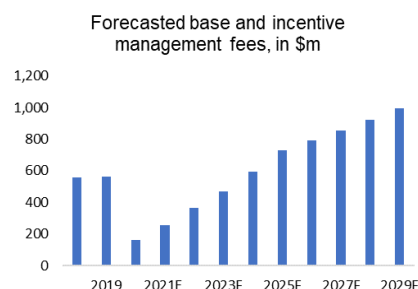


Figure 40 – Management fees from 2018-2029F, in million \$

Source: Own estimates

Revenues growth	
[2016-2019]	14.7%
[2020-2026F]	30.4%
[2027F-2036F]	5.2%
2036F onwards	3.4%

Figure 41 – Management fees growth

Source: Own estimates

Apart from franchising its brand, Hilton also manages hotels. In 2020, Hilton managed 715 hotel properties distributed amongst the 5 regions where the company operates. As a consequence of the industry turmoil after the Covid-19, more independent hotel owners are now looking for Hilton's long experience and expertise on the industry, so it is expected that the number of rooms under Hilton's management will grow at 5% CAGR 2020-2026. Foremost, the growth of the number of managed properties is forecasted to follow the company overall growth, expected to continue to represent 11% of Hilton's properties.

When Hilton manages a hotel, it receives a base management fee, which is based on a percentage of the hotel's monthly gross revenue, and, when applicable, an incentive management fee, which is typically based on a percentage of the hotel's operating profits. In 2020, the average monthly combined fee per managed room decreased from \$279 in 2019 to \$146. However, it is expected that by 2025 the dollar amount received will reach pre-covid levels, which corresponds to \$276 per room monthly. The dollar amount fee is estimated to grow 4% annually from 2025 to 2030, which is higher than the world inflation rate, 3.1%³⁶. However, in the long-term the average dollar amount received per room available is expected to increase below inflation rate at 2.2% annually, since the initial terms of management contracts are typically 20 to 30 years, which makes price adjustments extremely difficult.

Hilton's demand for managed rooms is the same as for franchised, causing occupancy rates to be similar. All in all, base and incentive management fees are forecasted grow at a 30% CAGR from 2020-2026, fully recovering from the drastically low fees received in 2020 and 2021.

Apart from the management and franchised fees, Hilton also recognizes *other revenues from franchised and managed properties*, which correspond to reimbursements made by property owners related to additional costs taken by Hilton while managing or franchising those properties. The corresponding expenses are expensed as incurred and are presented as *other expenses from managed and franchised properties* and expected to equal the revenues earned from reimbursements over time. For that reason, the net other expenses from managed and franchised properties is forecasted to be approaching zero, reaching a null effect by 2028.

³⁶ International Monetary Fund. 2021. "World Economic Outlook (October 2021)." Accessed October 30, 2021, <https://www.imf.org/external/datamapper/PCPIPCH@WEO/WEOWORLD/EUQ>



Figure 42 – Management and Franchised operating margin, from 2018-2026F

Source: Own estimates

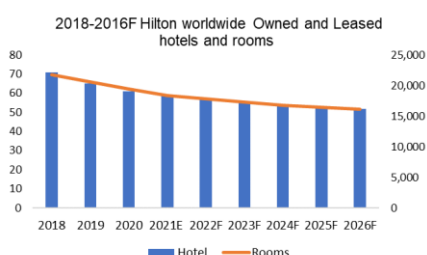


Figure 43 – Number of owned hotels and rooms from 2018-2026F

Source: Own estimates

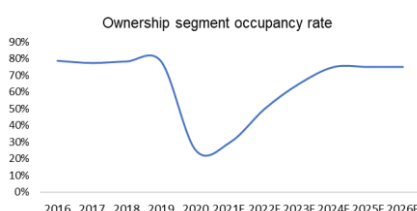


Figure 44 – Owned and leased rooms occupancy rate from 2016-2026F

Source: Own estimates

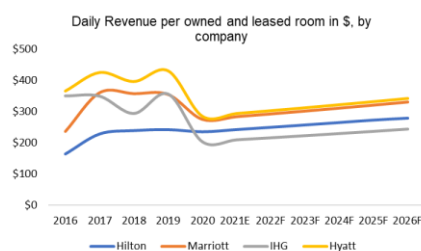


Figure 45 –Daily revenue per owned room, in \$, from 2016-2026F. Computations on Marriott, IHG and Hyatt price growth is based on the world inflation rate

Source: Own estimates

Hilton's costs related to managed and franchised hotels are mostly related to the amortization of the contracts, which are already partially recognized as a reduction of the fees. However, amortization costs related to intangible assets from which the value was recorded at the time of the Merger³⁷, still need to be deducted. Furthermore, as the years since the Merger pass by, the amortization costs of those assets will become immaterial, as after 2026 they descend to \$11m annually.

This segment is extremely profitable since Hilton does not have to incur in costs related to daily operations. Thus, in 2023, operating margin is expected to reach 88%, reaching pre-covid levels. Afterwards, it is expected to increase as amortization costs decrease.

■ Ownership segment

Since 2007, Hilton is disinvesting in this segment, clearly focusing in becoming an asset-light company, which is highlighted by the decrease in the number of owned and leased rooms that has an expected -3% CAGR 2020-2026.

The occupancy rate decreased tremendously in 2020 as a result of the global pandemic, reaching 25%. The hotel occupancy rate in Europe saw the most dramatic effects of the virus³⁸, directly impacting this segment demand as the majority, roughly 78%, of Hilton's owned and leased hotels are located in this continent. Furthermore, the forecasted recovery is also estimated to be slower, which results in occupancy to only reach its pre-covid level latest on 2024.

The average price per room available fell to \$235 per day in 2020 but based on the company post-pandemic ability to recover, its forecasted grow is expected to be 3% per year until 2026. Afterwards it is expect to converge towards the European long-term inflation, 2.2%³⁹. In this segment, Hilton charges daily fees inferior to its peers, which is caused by the location of its owned hotels.

The yearly increase in prices charged and the occupancy recovery will offset the decrease in rooms available making revenues increase up to \$1,229m in 2025. Moreover, in the long-term it is expected that revenues from owned and leased hotels to increase following the price increase as the number of properties gets stable reaching the lowest number by 2034, 46 hotel units.

³⁷ The Merger refers to October 24, 2007 transaction whereby Hilton became a wholly owned subsidiary of affiliates of The Blackstone Group Inc.

³⁸ STR. 2020. Global Hotel Review (Media Version) - Constant Currency Edition.

³⁹ International Monetary Fund. 2021. "World Economic Outlook (October 2021)." Accessed November 30, 2021, <https://www.imf.org/external/datamapper/PCPIPCH@WEO/EUQ>

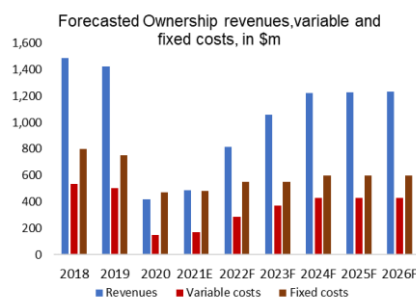


Figure 46 – Ownership revenues, variable and fixed costs, in million \$

Source: Own Estimates

Revenues growth	
[2016-2019]	0%
[2020-2026F]	19.6%
[2027F-2036F]	1.2%
2036F onwards	2.2%

Figure 47 – Owned and leased hotel revenues growth

Source: Own Estimates

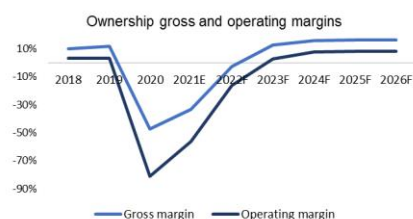


Figure 48 – Ownership segment profitability ratios

Source: Own estimates

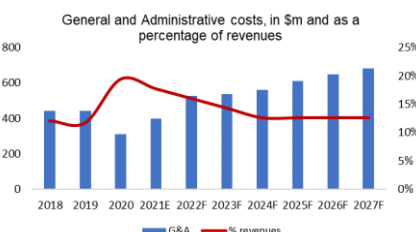


Figure 49 – General and administrative costs, in million \$ and as a % of revenues

Source: Own estimates

As previously mentioned, the cost structure of running owned or leased hotels represents a massive burden since the majority of those costs are fixed. In 2020 and 2021, owned and leased hotel expenses decreased primarily due to the decrease in occupancy, which led variable costs such as variable rent to decrease. Variables costs represent roughly 35% of ownership revenues and are forecasted to remain at that percentage level for the following years as Hilton does not plan to change its variable cost structure. However, even when hotels are operating with extremely low occupancy, fixed costs related to the maintenance of owned and leased hotels cannot be reduced easily. Despite that, fixed costs are expected to slightly decrease as Hilton plans to rearrange some fixed rent contracts, though those will continue to represent the majority of costs related to owned and leased hotels.

The Ownership segment is estimated to progressively recover its profitability after 2020, reaching pre-pandemic levels only by 2024, in which gross margin will be approximately 12%. As a result of owned and leased hotels fixed costs reduction, the margin is forecasted to increase and remain stable at 16%. Likewise, the operating margin will move in the same line, after 2024 is expected to be higher than pre-2020, 3%, since depreciation and amortization costs will decrease given that Hilton is decreasing the number of owned and leased hotel properties, reaching a steady operating ratio of 8%.

▪ Headquarters

Hilton is headquartered in Virginia, US, and owns or leases five regional corporate offices in each region it is present. Other than that, to support its operations, Hilton has Hilton Honors and other commercial services offices and own or leases centralized operations centres located in Tennessee and Scotland, and Hilton Reservations and Customer Care office in Texas. All in all, in 2020 Hilton had 10 offices worldwide in order to support its global and local business, in which the respective depreciation is allocated as a corporate cost.

In this segment are allocated mainly *General and Administrative* costs which consist primarily of compensation costs for corporate staff but also professional fees, travel and entertainment expenses. In 2020, *General and Administrative* expenses decreased primarily as a result of actions taken by the company in order to reduce or eliminate certain corporate costs in response to the Covid-19 pandemic, which included workforce reductions, temporary furloughs and salary reductions of corporate employees. These actions are expected to also reduce costs in future periods and so the percentage of G&A over total revenue is expected to decrease, from 18% in 2020 to 13% in 2026, reaching pre-pandemic levels.

Capital Expenditures

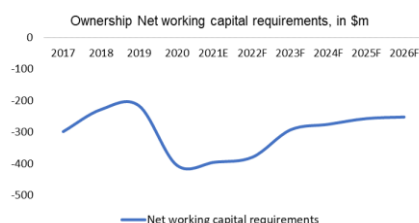


Figure 50 – Owned and leased Hotels Net Working Capital needs, in million \$
Source: Own estimates

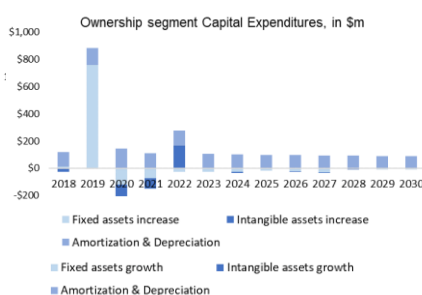


Figure 51 – Ownership segment Capital Expenditures, in millions of \$
Source: Own estimates

Hilton is almost entirely an asset-light model, meaning that the company needs minimal CAPEX to expand the business and with extremely low amounts is able to sustain its business, mainly related to contracts amortization. Despite that the company still operates as a hotel owner, which definitely requires heavy capital expenditures. Nevertheless, the company has a negative Working Capital as a result of the high *accrued and deferred employee compensation and benefits* related to the *Ownership* segment, which may indicate that the company is not devoting too much cash to daily operations. In 2020, it reached the lowest level given the significant decrease in *Accounts Receivables* associated with higher payment period extension provided to clients during the pandemic than the extension received by suppliers. However, it is forecasted that *NWC* will slowly increase from 2021 forward, but always maintaining a negative value.

The capital expenditures for *Property & Equipment* and *operating lease assets* consisted on the maintenance of hotels in the *Ownership segment*, and on the capitalized software costs related to various systems initiatives. As Hilton is eliminating owned and leased hotels, the capital expenditures in fixed assets are partially offset by the sale of those, resulting in almost null CAPEX.

Risks

During the forecast process we made several estimations for the company's future cashflows, namely for the revenues, and as always, those are dependent on multiple assumptions and thus can be risky. Furthermore, this section is focused on the impact of future travel restrictions imposed by external factors and lower than expected management and franchise contracts growth.

▪ Covid-19

In our forecasted future cash flows we took into consideration the present and future impact of Covid-19, especially in the demand for hotel rooms. However, in the tourism and travel sector, the path and pace of recovery remains highly uncertain, with the outlook depending on a wider range of factors than before: local and global economic conditions, the emergence of new variants, government travel restrictions, consumer and business confidence and changes in travel patterns.

In this part we analysed the possibility of Covid-19 having a larger impact. For that reason, we analysed the share price deviation considering the possibility of further future travel restrictions affecting directly Hilton's occupancy rate under two additional scenarios. In the first, occupancy rates will only return to Hilton's

	Base scenario	Future travel restrictions	Pessimistic scenario
2022	65%	60%	60%
2023	70%	65%	60%
2024	75%	65%	65%
2025	75%	70%	65%
Forward	75%	75%	68%
Price	\$177.58	\$176.04	\$157.50

Figure 52 – Occupancy rates under different scenarios and their impact in Hilton's share price

Source: Own estimates

past average in 2026 i.e. two years later than initially forecasted. In this scenario, the share price only decreases 1% relatively to the estimated price.

In the worst scenario, Hilton's rooms demand will not return to its past average as a result of post Covid-19 structural changes in travel habits leading rooms' occupancy rates to be much lower than in the base-scenario and only reaching 68% occupancy in the long run. In this case, there is a share price decrease of 11%, compared to the base scenario.

In sum, when Hilton's pre-2020 occupancy rates are reached, even if later than expected, the target share price is barely affected. When considering that the pandemic crisis could have changed drastically travel and tourism patterns and particularly affecting hotels' occupancy rate, the share price is more impacted. Nevertheless, in both scenarios our final recommendation does not change.

▪ Management and Franchise contracts growth

During the forecasting period, we are relying on Hilton's ability to significantly increase the number of franchised and managed properties, as its 2020-2026 CAGR is expected to be 5.8%. However, it would be relevant to analyse the impact on Hilton's price if the number of management and franchise contracts only increases moderately especially in the next following years, which can happen in the event of the company's inability to close more deals in the region with highest grow, Asia Pacific. Thus, in a scenario in which Hilton's market share in terms of rooms in APAC only reaches 9.5%, causing the managed and franchised rooms 2020-2026 CAGR to be 4.6%, Hilton's price would decrease 16% relatively to the base scenario. It was considered that this scenario is not very likely to occur (considered 25% probability), given that according to Xiao, O'Neill and Wang (2008)⁴⁰ Hotel chains that have strong brand awareness, supportive centralized reservation systems and offer relatively high returns on investment are most attractive to potential Asian franchisees.

For a further analysis it was considered an extremely negative scenario, in which the number of openings in the long run will be significantly lower than in the base scenario caused by Hilton's failure to close deals with third-party hotel owners after 2020 onwards, which is unlikely to occur and for that reason considered 10% probability. In this scenario it was considered that Hilton will not be able to sustain its current market position in APAC, as in 2026 Hilton's market share will decrease to 8.7%, compared to 9.2% in 2020. The possibility of not keeping the pace of APAC's hotel industry growth, will seriously impact Hilton's share price,

	Base scenario	Conservative growth	Pessimistic scenario
Hilton's 2026 market share in APAC	11%	9.5%	8.7%
New rooms in APAC 2020-2026	138,536	100,000	83,000
Hotel properties 2020-2026 CAGR	5.8%	4.6%	3.8%
Hotel properties 2026-2036 CAGR	2.9%	2.3%	1.8%
Share price	\$177.58	\$149.45	\$129.24

Figure 53 – Share price impact under conservative and pessimist Management and Franchised hotels growth

Source: Own estimates

⁴⁰ Xiao, Qu, O'Neill, John W., and Wang, Huiyang. 2008. "International hotel development: A study of potential franchisees in China." *International Journal of Hospitality Management* 27 (2008) 325–336

estimated to decrease 26% compared to the base scenario, resulting in a \$129 share price, which would change our final recommendation. Since these scenarios can significantly impact the company's value, even if under a low probability, those were considered in our final price target.

Valuation

Given Hilton's current share price of \$139, it is considered that the stock is undervalued, since from the intrinsic valuation, it was concluded that Hilton's share price is worth \$177.58, which adjusted to the previous scenario analysis resulted in a target price of \$165.71. Furthermore, according to the model, Hilton's stock will generate total 12-months returns of 23%, including dividends and other distributions realized over this period.

Discounted Cash Flow model

Hilton's intrinsic share price of \$177.58 was reached applying the Discounted Cash Flow (*DCF*) model using the Weighted Average Cost of Capital (*WACC*) for the Core Businesses Units and using the 2022 estimated Book Value for the Non-core and Debt. This approach was considered the most adequate when taking into consideration Hilton's and Hotel's industry capital structure. Moreover, as of 2020 Hilton had a leverage ratio of 21%, which is expected to decrease in order to reach the industry's average on the past 4 years by 2022 that corresponds to 17.5%. Afterwards, it was assumed that Hilton will have a fixed target debt-to-value policy, which corresponds to the hotel industry historical average ratio, then turning *WACC* the most suitable method to quantify its equity value. Furthermore, in order to properly value Hilton's price using *WACC*, it was computed the below inputs to have a reasonable discount rate for the company. Given the computations described below, the *WACC* estimated was 7.63%.

■ Cost of Equity

The cost of equity was computed using the *CAPM* formula, which resulted in a cost of equity of 8.67%.

Risk-free rate

Firstly, 1.43%⁴¹ was the risk-free rate derived using the value of the Market Yield on US Treasury Securities at 10-Year Maturity as of 01/12/2021. T-Bills are considered almost free of default risk because they are fully backed by the US

Hotel industry leverage ratio, by company and Industry's average in the past 4 years, 2017-2020

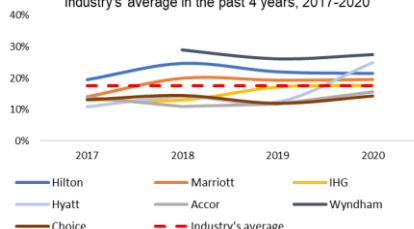


Figure 54 – Leverage ratio in the Hotel industry from 2017-2020, by company and industry's average

Source: Companies' reports

2017-2025F Hilton's target leverage ratio

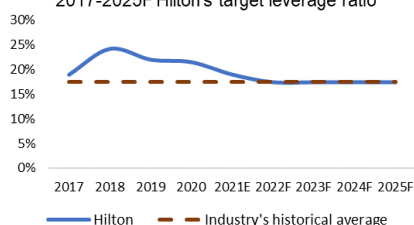


Figure 55 – Hilton's leverage ratio from 2017-2025F

Source: Own estimates

Cost of equity	
Risk-free rate (T-bill US 10 years)	1.43%
Levered Beta	1.38
Market risk premium	5.25%

Cost of Equity **8.67%**

Figure 56 – Cost of equity inputs
Source: FRED, KPMG and own computations

Number of properties per geographic location, by company, in 2020

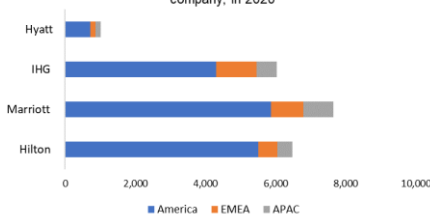


Figure 57 – Geographic hotel properties, per region in 2020

Source: Companies' annual report

⁴¹ FRED. 2021. "Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity". Accessed December 1, 2021, <https://fred.stlouisfed.org/series/DGS10>

government. Additionally, 10 years was chosen in order to match the bond's maturity with the future cash flows so as to minimize inflation risk and its effect on market risk⁴².

Levered beta

The next step was to estimate Hilton's expected beta in order to calculate the company incremental risk and correlation with the market. Firstly, Hilton's excess returns were regressed against a proxy for the market excess return, S&P 500 Index, using monthly returns for the last five years. Since during our valuation it was estimated that Hilton's D/E will slightly change for the forecasted future, forward-looking equity beta also needed to reflect this change. For that reason, we computed Hilton's and its peers' unlevered beta.

As comparable companies were considered worldwide with strong presence in the US market hotel groups with more than 1,000 hotel properties belonging to the midscale and upscale subsegments and that engage in franchise and management contracts, but also own or lease some properties. In order to reflect the same operational risk, it was analysed companies with only market capitalization higher than \$5B and with similar operational leverage, except for 2020 due to impact of covid-19 on hotels' operations. With those criteria in mind, we reached four⁴³ main peer hotel groups that have a business model and exposure very similar to Hilton's, which is the case of Marriott, InterContinental and Hyatt.

Then, the raw betas for the four companies were computed by regressing each company monthly return over S&P 500 monthly returns over the last five years. All companies used as comparables achieved a R-squared higher than 40% and a significant p-value, which increased our confidence.

After unlevering all companies' raw betas, in which beta debt was assumed to be null, it was reached Hilton's unlevered beta of 1.13, which represents the average value across the four companies. Finally, Hilton's expected beta was computed based on the previously forecasted targeted D/E ratio of 22%, assuming that the risk associated with the tax shields will be the same as the assets. Resulting in beta of 1.38.

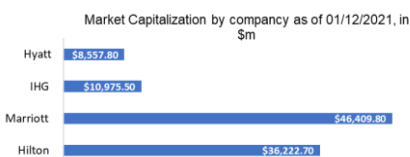


Figure 58 – Market Capitalization in 01/12/2021, in millions \$
Source: Bloomberg



Figure 59 – Operational leverage by company, from 2017-2020
Source: Companies' annual reports

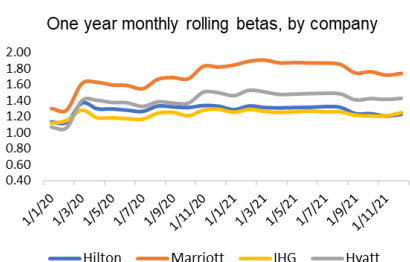


Figure 60 – Monthly rolling betas, by company, from 2020-2021
Source: Bloomberg

Company	Hilton	Marriott	IHG	Hyatt
Levered beta	1.23	1.74	1.25	1.43
R-squared	43%	51%	47%	40%
SE	0.184	0.226	0.174	0.231
D/E	23%	22%	24%	29%
Beta Unlevered	1.00	1.42	1.01	1.10
Lower 95%	0.86	1.05	0.9	0.75
Upper 95%	1.6	1.79	1.59	1.46

Figure 61 – Betas unlevering output
Source: Own computations

⁴² Mukherji, Sandip. 2011. "The Capital Asset Pricing Model's Risk-Free Rate." *The International Journal of Business and Finance Research*, Vol. 5, No. 2, pp. 75-83, 2011. 7

⁴³ Accor was excluded due to the geographic focus on Europe, Choice Hotels and Wyndham operate exclusively as Franchisors, thus their business model is already an asset light model, differing from Hilton's.

Market Risk Premium

Given the high market volatility, the market risk premium (MRP) was estimated to be 5.25%, which is in the range appointed by the KPMG⁴⁴ (2021).

Cost of Debt

The cost of debt was estimated based on averaged yield to maturity (YTM) of Hilton's long-term bonds, with maturity year in 2030, 2031 and 2032. The averaged YTM is 3.99%, computed based on the bonds' current market prices. Then, this value was adjusted to account for the probability of default given the company's rating (BB according to S&P), which is estimated to be 0.93%⁴⁵. Finally, given the estimates of Elton et. al.⁴⁶ for the recovery rate considering Hilton's rating it was possible to estimate that loss given default is 61%. Moreover, Hilton's cost of debt is estimated to be 3.42%. In terms of the tax rate it was considered that the actual 21% US tax rate will remain in the future years.

Core Free Cash Flow

Hilton's Core Free Cash Flows (FCF) were forecasted until 2036, since afterwards the company is expected to reach its steady state. As the company is disinvesting in owned and leased hotels, the respective FCF are growing continuously less over the course of the years, contributing very little for the company's value. On the contrary, FCF from *Management and Franchise* are forecasted to further increase and the overall FCF is extremely dependent on the ability to create value through this business unit. FCF from *Headquarters* are increasingly negative every year, since this business unit contains mainly corporate expenses that are needed to support the other two business segments.

Long-term value creation drivers

Growth

According to Koller, Goedhart and Wessels (2020)⁴⁷, a company in the long-term can generate revenue growth from three different sources: portfolio momentum,

Bonds	HILT.DOM.OP. 19/30	HILT.DOM.OP. 20/31 REGS	HILT.DOM.OP. 21/32 REGS
Maturity	15/01/2030	01/05/2031	15/02/2032
Coupon rate (bi-annual)	2.44%	2%	1.81%
Issue price	\$100	\$100	\$100
Market price	\$106.12	\$100.43	\$97.56
YTM	4.018%	3.983%	3.958%

Figure 62 – Hilton's long-term bonds
Source: Bloomberg

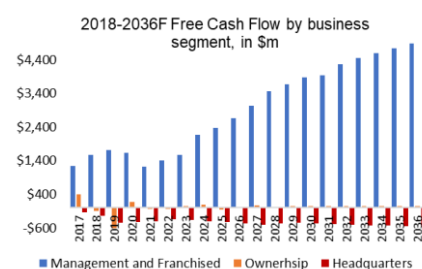


Figure 63 – Free Cash Flows expected in the 3 segments, in million \$
Source: Own estimates

⁴⁴ KPMG. 2021. Equity Market Risk Premium – Research Summary. Accessed December 2, 2021, <https://indialogue.io/clients/reports/public/5d9da61986db2894649a7ef2/5d9da63386db2894649a7ef5>

⁴⁵ S&P Global. 2021. "2020 Annual Global Corporate Default And Rating Transition Study"

⁴⁶ Elton, Edwin J., Gruber, Martin J., Agrawal, Deepak, and Mann, Christopher. 1999. "Is there a risk premium in corporate bonds?" *New York University Stern School of Business*

⁴⁷ Koller, Tim, Marc Goedhart, and David Wessels. 2020. *Valuation: Measuring and Managing the Value of Companies*. McKinsey & Company. University Edition, 7th Edition

market share performance and mergers and acquisitions. Further studies⁴⁸, showed that for large companies, the most important source of growth by far was portfolio momentum. Moreover, Hilton's future growth is expected to come from portfolio momentum, as it is a mature company that has already its market position well-established inside the industry and accounts for a solid and strong brand name. Additionally, further M&A are not expected. Foremost, Hilton is expected to continue expanding its *Management and Franchise* business by attracting owners to become a part of its system and participate in its commercial services to support their properties.

After 2036, the final perpetual growth rate is expected to be 3.29% which equalizes the revenue growth over the long run. According to OECD⁴⁹, the real GDP growth rate until 2060 is estimated to be 2%, which adjusted to inflation rate, 1.9%⁵⁰, results in Hilton's long-term growth to be slightly below OECD nominal economy growth rate, 3.9%. As Hilton operates in a sector with fewer growth opportunities compared to others, it is reasonable to expect that the sector will progressively have a lower weight in the economy.

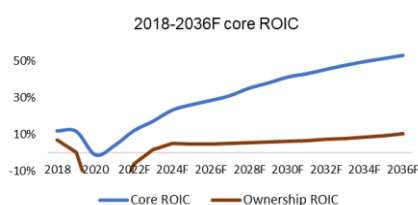


Figure 64 – Core ROIC and ownership segment ROIC, from 2018-2036F
Source: Own estimates

▪ ROIC

As for *Management and Franchise* segment expansion, the investment needed is extremely low or inexistent, the ROIC of this business unit is constantly increasing over the forecasted years. Additionally, the company is disinvesting in the *Ownership* segment, leading its ROIC to increase during the next 15 years and reach 10% in the long run. Furthermore, Hilton is expected to reach an extremely high core ROIC over the forecasted years as it moves to an asset-light model, reaching 53% by 2036.

Equity value

After computing Hilton's appropriate discount rate and terminal perpetual growth, it is possible to compute the core enterprise value of the company by discounting the future core *FCF*, which resulted in \$61B. In order to estimate the total Enterprise value we added the value of non-operating assets. Since Hilton's non-operating assets consist mainly in deferred taxes, pension obligations and insurance reserves, the value of the non-core segment was estimated based on the end-2022 book value, reaching a negative value of 1.4B. Likewise, Hilton's

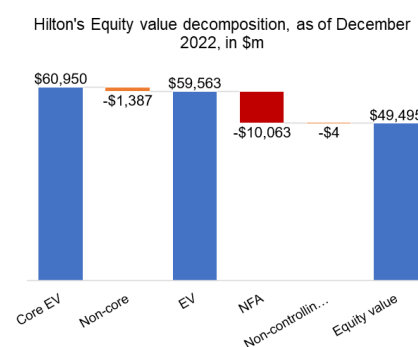


Figure 65 – Hilton's equity value decomposition, in millions of \$
Source: Own estimates

⁴⁸ McKinsey. 2007. "The granularity of growth." Accessed November 4, 2021, <https://www.mckinsey.com/featured-insights/employment-and-growth/the-granularity-of-growth>

⁴⁹ OECD. 2021. "Looking 2060 long-term global growth prospects" Accessed December 12, 2021, <https://www.oecd.org/economy/lookingto2060long-termglobalgrowthprospects.htm>

⁵⁰ International Monetary Fund. 2021. "World Economic Outlook (October 2021)." Accessed December 12, 2021, <https://www.imf.org/external/datamapper/PCPIPCH@WEO/ADVEC>

estimated Enterprise Value is \$60B. Finally, it was subtracted the company's financial obligations and non-controlling interests to the EV, reaching the Equity value of \$49.5B. Since Hilton has 279m shares outstanding, its intrinsic price as of 31/12/2022 is \$177.58.

In order to incorporate the possible two scenarios in which there is a lower managed and franchised properties growth, it was conducted a scenario analysis. Furthermore, we gave a probability of 65% to the base scenario, 25% to the conservative and 10% to the pessimist scenario, which led to an expected price target of \$165.71 per share.

Sensitivity Analysis

	Probability	Share Price
Base Scenario	65%	\$177.58
Conservative Growth Scenario	25%	\$149.45
Pessimistic Scenario	10%	\$129.24
Target price	100%	\$165.71

Figure 66 – Scenario Analysis
Source: Own estimates

The valuation performed is dependent on several assumptions. So, in order to avoid the possibility to be excessively dependent on those, we ran a sensitivity analysis with different discount rates and perpetual growths. In terms of the WACC, the most uncertain input was the beta computations. Furthermore, it was analysed different WACC values considering changes in the unlevered beta as a consequence of the variations in the beta levered of each comparable company, based on the upper and lower bounds for 95% confidence level. For the perpetual growth rate was considered a range in which the lower bound corresponded to the possibility of Hilton not successfully expanding its business in APAC, resulting in a 2.43% Unlevered *FCF* terminal growth. On the upper bound, it was considered that Hilton's long-term growth is in line with the OECD long-term nominal growth rate, 3.9%, resulting in higher share price.

		WACC						
		5.90%	6.48%	7.05%	7.63%	8.20%	8.78%	9.35%
Terminal growth rate	2.4%	\$248	\$209	\$181	\$158	\$140	\$131	\$114
	2.7%	\$264	\$220	\$188	\$164	\$145	\$135	\$116
	3.0%	\$283	\$233	\$197	\$170	\$149	\$139	\$119
	3.3%	\$307	\$248	\$207	\$178	\$155	\$143	\$122
	3.5%	\$327	\$261	\$216	\$183	\$159	\$147	\$125
	3.7%	\$351	\$275	\$225	\$190	\$163	\$150	\$127
	3.9%	\$379	\$291	\$235	\$197	\$168	\$154	\$130

Figure 67 – Price sensitivity analysis between WACC and terminal growth rate
Source: Own estimates

It can be concluded that modifications in the cost of capital can change our recommendation, since for a WACC higher than 8.56% the capital gains are null, considering the actual terminal value growth. On the other hand, the valuation is less sensible to changes in the terminal growth rate.

Multiples Valuation

Finally, relative valuation was used as a complementary approach to determine Hilton's share price. The comparable companies identified were the same as

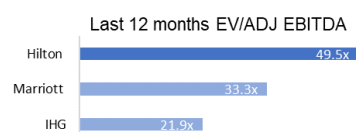


Figure 68 – Last 12 months EV/Adj EBITDA

Source: Bloomberg

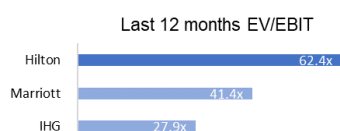


Figure 69 – Last 12 months EV/EBIT

Source: Bloomberg and own estimates

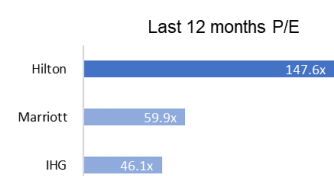


Figure 70 – Last 12 months P/E

Source: Bloomberg and own estimates

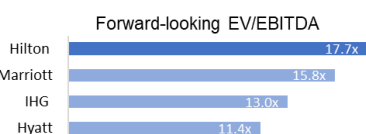


Figure 71 –Forward-looking EV/EBITDA

Source: Bloomberg

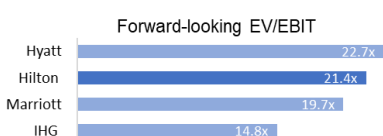


Figure 72 –Forward-looking EV/EBIT

Source: Bloomberg

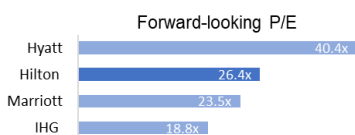


Figure 73 –Forward-looking P/E

Source: Bloomberg

those considered for the beta computations: Marriott, InterContinental and Hyatt. Moreover, we selected three different multiples: *EV to EBIT*, *EV to Adjusted EBITDA* and *Price to Earnings*. These three multiples were considered the most adequate metrics in order to comparatively assess Hilton's price.

Furthermore, the first two multiples are the most insightful as they eliminate the distorting effect of different capital structures. Additionally, the *Adjusted EBITDA* also excludes nonoperating assets and nonoperating income statement items. In order to properly analyse these metrics, negative multiples were excluded, which was Hyatt's case.

In the last 12 months, Hilton is valued at a premium compared to its peers in all the three metrics, which may indicate that Hilton's price is overvalued. One explanation for the higher multiples than average is supported by Hilton's valuable portfolio brand recognized as the most valuable amongst the sector, according to Brand Finance(2020)⁵¹. Hilton's year-on-year success is explained by its strong revenue growth and solid reputation, making it a safe choice amongst travellers around the world. Despite Marriott having the largest number of properties alongside with the largest market share in the industry, Hilton has a stronger brand portfolio.

In sum, considering the average *EV/EBITDA* multiple, Hilton's relative valuation imply a share price of \$164, *EV/EBIT* multiple of \$143 and *P/E* multiple of \$172, which are in line with the *DCF* model intrinsic price. However, due to unusually negative or low operational results as most of the Hotel groups are still struggling to respond to the Covid-19 impact, it would be relevant to analyse *Forward-Looking* multiples in order exclude this abnormal effect. From these multiples one could conclude that Hilton is still valued at premium, despite being outpaced by Hyatt in the *EV/EBIT* and *P/E* multiples.

All in all, the relative valuation led to the conclusion that the market is already valuing Hilton at a premium compared to its peers, when considering the analysed multiples.

⁵¹ Brand Finance. 2020. "World's Top 50 Most Valuable Hotel Brands Could Lose US\$14 Billion of Brand Value from COVID-19." Accessed December 13, 2021, <https://brandfinance.com/press-releases/worlds-top-50-most-valuable-hotel-brands-could-lose-us14-billion-of-brand-value-from-covid-19>

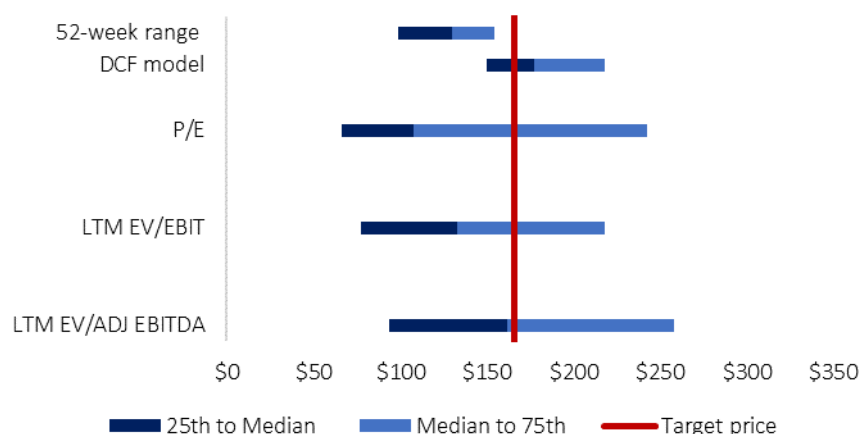


Figure 74 – Football Field of Hilton Valuation, Source: own estimates

Final Recommendation

Our final recommendation is to buy Hilton's stock since it is projected a upside until December 2022, with an expected target price of \$165.71, resulting in 23% total return, including capital and dividends gains.

Hilton is one of the strongest hotel groups in the world, given its 34% market share and its extensive portfolio of 18 hotel brands that is considered the most valuable in the industry, at \$10.8B. In fact, its current share price already reflects investors' high expectations towards Hilton's value, highlighted by the multiples valuation. However, we still believe that Hilton has more value and growth opportunities.

Covid-19 had a strong effect on Hilton and overall in the industry, causing overall revenues to decrease and showing the high vulnerability of the *Ownership* segment. Nevertheless, Hilton is expected to recover its strong financial performance by 2024, reflected in its 2021-2026 franchise and management fees CAGR of 19% which reinforces Hilton's long-term strategy to shift to a fee-based company. This strategy will increase the company's overall profitability as further expansion requires minimal investments, resulting in an extremely high ROIC. Furthermore, Hilton is well positioned to expand its business in fast-growing regions as the APAC, in which overall 2017-2025 CAGR is 5%, as it is already recognized as the fastest-growing franchisor in China. Furthermore, Hilton is expected to immensely expand its business in this region, reaching 11% market share by 2026 compared to 9% in 2020, whilst sustaining its solid market position in the US.

Appendix

Financial Statements

Income statement

(in millions \$., except per share data)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Core Business - Management and Franchised segment																		
Franchise and licensing fees	1,681	945	1,385	1,787	2,126	2,521	2,764	3,021	3,251	3,492	3,708	3,924	4,134	4,334	4,520	4,698	4,853	5,012
Base and incentive management fees	562	161	255	366	471	596	730	792	857	923	994	1,062	1,124	1,176	1,228	1,263	1,308	1,354
Net on other expenses from managed and fr	-77	-397	-347	-298	-248	-199	-149	-99	-50	0	0	0	0	0	0	0	0	0
Amortization	-202	-164	-131	-96	-63	-13	-9	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
Core Result before taxes (EBIT)	1,964	545	1,162	1,759	2,287	2,906	3,336	3,704	4,047	4,404	4,691	4,975	5,247	5,500	5,738	5,950	6,150	6,356
Statutory taxes	412	114	244	369	480	610	701	778	850	925	985	1,045	1,102	1,155	1,205	1,249	1,291	1,335
Tax Adjustments	48	-94	-22	34	44	55	64	71	77	84	89	95	100	105	109	113	117	121
Core Result from Management and Franc	1,504	525	940	1,356	1,763	2,240	2,572	2,855	3,120	3,395	3,616	3,835	4,045	4,240	4,423	4,587	4,741	4,900
Core Business - Ownership segment																		
Owned and leased hotels	1,422	421	488	813	1,056	1,221	1,229	1,231	1,232	1,238	1,243	1,251	1,266	1,284	1,296	1,311	1,340	1,369
Owned and leased hotels expenses	-1,254	-620	-651	-835	-920	-1,027	-1,030	-1,031	-1,031	-1,033	-1,035	-1,038	-1,043	-1,049	-1,053	-1,059	-1,069	-1,079
Depreciation and amortization	-125	-143	-112	-108	-105	-101	-99	-96	-93	-92	-91	-89	-88	-87	-86	-85	-85	-85
Core Result before taxes (EBIT)	43	-342	-274	-130	32	92	99	103	108	113	117	124	135	148	156	167	186	205
Statutory taxes	9	-72	-58	-27	7	19	21	22	23	24	25	26	28	31	33	35	39	43
Tax Adjustments	30	-36	-30	-67	17	48	52	54	56	58	61	64	70	77	81	87	96	106
Core Result from Ownership segment	4	(235)	(187)	(35)	9	25	27	28	29	30	32	34	36	40	42	45	50	55
Core Business - Headquarters segment																		
Other revenues	101	73	82	95	108	114	121	127	132	138	143	149	154	158	161	164	166	168
General and administrative	-441	-311	-392	-490	-538	-561	-610	-652	-690	-637	-670	-638	-668	-695	-721	-736	-759	-783
Other expenses	-72	-60	-62	-79	-84	-89	-93	-98	-102	-107	-111	-115	-119	-122	-125	-127	-129	-130
Depreciation	-19	-24	-19	-19	-19	-19	-19	-19	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18
Core Result before taxes	-431	-322	-390	-493	-533	-554	-602	-642	-678	-624	-656	-623	-651	-678	-703	-717	-740	-763
Statutory taxes	-90	-68	-82	-104	-112	-116	-126	-135	-142	-131	-138	-131	-137	-142	-148	-151	-155	-160
Tax Adjustments	13	116	117	-19	-20	-21	-23	-24	-26	-24	-25	-24	-25	-26	-27	-27	-28	-29
Core Result from Headquarters	(354)	(370)	(426)	(371)	(401)	(417)	(453)	(483)	(510)	(470)	(493)	(469)	(490)	(510)	(528)	(540)	(556)	(574)
Non-Core Business																		
Impairment losses	0	-258	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reorganization costs	0	-41	-41	-41	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gain on sale of assets, net	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gain (loss) on foreign currency transactions	-2	-27	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
Loss on debt extinguishment	0	-48	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22
Other non-operating income, net	3	-2	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Non-Core Result before taxes	82	-376	-57	-57	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16
OCI	-58	-20	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
Statutory taxes	17	-79	-12	-12	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
Tax adjustments	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Core Result	1	-321	-2	-2	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Financial																		
Interest expense	-414	-429	-544	-483	-471	-499	-526	-551	-578	-604	-629	-653	-676	-699	-724	-748	-772	-798
Financial result before taxes	-414	-429	-544	-483	-471	-499	-526	-551	-578	-604	-629	-653	-676	-699	-724	-748	-772	-798
Statutory taxes	-87	-90	-114	-101	-99	-105	-111	-116	-121	-127	-132	-137	-142	-147	-152	-157	-162	-168
Financial result	-327	-339	-430	-381	-372	-394	-416	-436	-457	-477	-497	-516	-534	-552	-572	-591	-610	-630
Comprehensive Result	828	-740	-104	566	1029	1485	1761	1995	2213	2509	2688	2914	3088	3248	3395	3532	3658	3771

Revenues' Drivers

[illegible][illegible]

Balance Sheet

(in millions \$, except per share data)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Core Management and Franchised segment																		
Operating cash	56	28	41	54	65	78	87	95	103	110	118	125	131	138	144	149	154	159
Accounts receivable	772	558	674	767	854	960	1,076	1,174	1,265	1,359	1,448	1,535	1,642	1,721	1,795	1,862	1,924	1,989
Prepaid expenses	80	51	64	84	101	122	137	149	160	172	184	195	205	215	225	233	241	249
Current portion of deferred revenues	-203	-268	-394	-431	-468	-422	-349	-381	-410	-441	-470	-498	-473	-496	-517	-536	-554	-579
Income tax payable	0	0	-0	-3	-5	-6	-8	-9	-10	-11	-12	-13	-13	-14	-15	-16	-16	-17
Net working capital requirements	704	369	385	471	548	731	943	1,029	1,108	1,190	1,267	1,344	1,492	1,564	1,631	1,692	1,748	1,800
Goodwill	5,061	5,095	5,095	5,095	5,095	5,095	5,095	5,095	5,095	5,095	5,095	5,095	5,095	5,095	5,095	5,095	5,095	5,095
Brands	4,825	4,858	4,862	4,865	4,868	4,872	4,874	4,876	4,878	4,879	4,880	4,882	4,883	4,884	4,884	4,885	4,885	4,885
Management and franchise contracts	780	653	693	736	781	826	871	908	948	989	1,029	1,068	1,107	1,122	1,159	1,179	1,194	1,203
Deferred income tax assets	395	626	521	417	313	209	104	0	0	0	0	0	0	0	0	0	0	0
Liability for guest loyalty program	-1,839	-2,446	-2,577	-2,708	-2,580	-2,699	-2,818	-2,937	-3,056	-3,175	-3,274	-3,354	-3,374	-3,433	-3,512	-3,552	-3,572	-3,572
Deferred income tax liabilities	-779	-884	-737	-590	-442	-295	-147	0	0	0	0	0	0	0	0	0	0	0
Deferred revenues	-506	-727	-984	-1,076	-1,169	-1,247	-1,223	-1,068	-970	-1,042	-1,110	-1,177	-1,236	-1,295	-1,351	-1,401	-1,448	-1,496
Invested capital Management and franchise	8,641	7,543	7,258	7,210	7,414	7,491	7,698	7,902	8,002	7,936	7,888	7,857	7,968	7,936	7,906	7,897	7,902	7,915
Core Ownership segment																		
Operating cash	36	11	12	20	26	31	31	31	31	31	31	31	32	32	32	33	33	34
Accounts receivable	489	213	227	334	347	376	378	379	379	381	376	374	383	388	392	396	405	414
Prepaid expenses	50	19	19	32	41	48	48	48	48	48	49	49	49	50	51	51	52	53
Accrued employee compensation and benefits	-359	-322	-306	-296	-288	-279	-273	-268	-263	-257	-253	-250	-247	-245	-242	-240	-240	-240
Accounts payable	-303	-224	-232	-274	-277	-281	-264	-264	-265	-265	-266	-266	-268	-269	-270	-272	-274	-277
Current portion of deferred revenues	-129	-102	-117	-195	-143	-165	-166	-167	-167	-168	-169	-171	-174	-176	-178	-178	-181	-185
Income tax payable	0	0	0	0	0	-3	-10	-10	-11	-11	-12	-12	-13	-14	-15	-16	-18	-19
Net working capital requirements	-216	-406	-396	-380	-293	-275	-257	-252	-247	-244	-244	-244	-235	-231	-229	-225	-222	-220
Goodwill	98	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	4
Brands	52	46	42	39	35	32	30	28	26	25	24	22	21	21	20	19	19	19
Other intangible assets	421	266	195	366	370	363	365	366	367	368	370	372	376	382	385	390	399	407
Operating lease right-of-use assets	751	663	654	634	615	597	585	565	559	557	548	540	535	529	524	519	519	519
Property and equipment, net	329	297	231	224	218	211	207	203	179	175	173	170	168	167	165	163	163	163
Deferred income tax assets	720	682	512	341	171	0	0	0	0	0	0	0	0	0	0	0	0	0
Deferred revenues	-321	-277	-244	-366	-422	-427	-344	-291	-291	-292	-293	-295	-299	-303	-306	-310	-316	-323
Deferred income tax liabilities	-676	-514	-386	-257	-129	0	0	0	0	0	0	0	0	0	0	0	0	0
Liability for guest loyalty program	-20	-23	-25	-26	-27	-29	-30	-30	-31	-32	-28	-25	-29	-26	-27	-27	-27	-27
Invested capital Ownership	1,140	735	723	737	720	698	699	679	685	682	672	662	660	662	663	664	665	666
Core Headquarters segment																		
Operating cash	3	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4	4	4
Restricted Cash	92	45	64	89	109	129	121	129	137	145	122	128	134	139	144	149	153	158
Deferred income tax assets	121	121	91	60	30	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating lease right-of-use assets	116	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109
Property and equipment, net	51	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
Deferred income tax liabilities	-60	-55	-41	-28	-14	0	0	0	0	0	0	0	0	0	0	0	0	0
Accrued and deferred employee compensation	-313	-198	-228	-269	-318	-336	-354	-372	-389	-405	-421	-437	-452	-464	-474	-482	-489	-495
Invested capital Ownership	9	72	45	12	(33)	(47)	(73)	(82)	(91)	(99)	(139)	(148)	(157)	(163)	(169)	(172)	(174)	(175)
Core invested capital	9,790	8,350	7,887	7,798	7,919	7,917	8,182	8,410	8,474	8,396	8,298	8,249	8,349	8,311	8,270	8,255	8,263	8,279
Non-Core Business																		
Current assets of discontinued operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other current Assets	72	98	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123
Current liabilities of discontinued operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-current assets of discontinued operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deferred income tax assets	-417	-430	-376	-376	-376	-376	-376	-376	-300	-200	-100	-50	0	0	0	0	0	0
Other assets	280	323	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308
Other long term-term tax liabilities	-369	-400	-408	-408	-408	-408	-408	-408	-408	-408	-408	-408	-408	-408	-408	-408	-408	-408
Other liabilities and accrued expenses	-618	-436	-483	-483	-483	-483	-483	-483	-483	-483	-483	-483	-483	-483	-483	-483	-483	-483
Non-current liabilities of discontinued operation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pension obligations	-134	-143	-160	-160	-160	-160	-160	-160	-160	-160	-160	-160	-160	-160	-160	-160	-160	-160
Insurance reserves	-273	-257	-296	-296	-296	-296	-296	-296	-296	-296	-296	-296	-296	-296	-296	-296	-296	-296
Other liabilities	-84	-141	-95	-95	-95	-95	-95	-95	-95	-95	-95	-95	-95	-95	-95	-95	-95	-95
Invested non-core capital	(1,543)	(1,386)	(848)	(848)	(848)	(848)	(848)	(848)	(881)	(901)	(921)	(951)	(981)	(1,011)	(1,010)	(1,009)	(1,008)	(1,007)
Net Financial Assets																		
Excess cash	444	3,178																
Current maturities of long-term debt	-37	-56																
Long-term debt	-7,956	-10,431																
Operating lease liabilities	-1,170	-1,141																
Total debt	-9,163	-11,628																
Net Financial Assets	(8,719)	(8,450)	(10,307)	(10,063)	(10,650)	(11,243)	(11,778)	(12,347)	(12,910)	(13,444)	(13,940)	(14,435)	(14,933)	(15,462)	(15,976)	(16,499)	(17,040)	(17,601)
Noncontrolling interests	-10	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4
Equity	(472)	(1,486)	(3,812)	(3,656)	(4,122)	(4,718)	(4,987)	(5,329)	(5,751)	(6,264)	(6,757)	(7,251)	(7,599)	(8,166)	(8,721)	(9,260)	(9,792)	(10,338)

Free Cash Flow Map

(in millions \$, except per share data)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
EBIT	1,132	1,432	1,576	-119	497	1,136	1,786	2,444	2,834	3,165	3,476	3,892	4,152	4,475	4,730	4,970	5,191	5,399	5,596	5,798
Core taxes	-372	-357	-422	39	-169	-186	-415	-595	-688	-765	-837	-936	-998	-1,076	-1,139	-1,199	-1,254	-1,307	-1,361	-1,416
NOPLAT	760	1,075	1,154	-80	328	950	1,371	1,848	2,146	2,401	2,639	2,956	3,155	3,400	3,592	3,770	3,937	4,092	4,235	4,382
Depreciation and Amortization	336	325	346	331	262	223	186	133	127	126	123	121	120	118	117	116	115	114	114	114
Gross Free Cash Flow	1,096	1,400	1,500	251	590	1,173	1,557	1,981	2,273	2,526	2,762	3,077	3,275	3,518	3,709	3,886	4,053	4,207	4,349	4,496
NWC investment	80	-148	-84	458	-15	-87	-135	-203	-205	-81	-75	-80	-35	-67	-149	-69	-65	-60	-58	-53
Changes in goodwill	28	30	1	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Changes in Liability for Loyalty pro	29	208	190	610	133	132	-127	120	120	119	120	120	95	77	23	57	80	40	20	0
Net Capex	-366	-219	-1,148	53	-155	-410	-209	-147	-158	-139	-134	-158	-151	-148	-154	-130	-148	-132	-138	-132
Other investments	637	-37	-190	-76	239	229	164	98	-150	-252	-98	74	69	69	62	64	59	53	54	55
Operating Free Cash Flow	1,504	1,234	269	1,360	791	1,038	1,250	1,850	1,881	2,173	2,575	3,034	3,253	3,449	3,491	3,808	3,978	4,108	4,227	4,366
Non core result	754	-70	1	-321	-2	-2	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Changes in non core invested capi	-2925	-120	-167	157	-1	0	0	0	0	0	76	100	100	50	50	0	0	0	0	0
Non operating Free Cash Flow	3,679	50	168	(478)	(1)	(2)	30	30	30	30	(46)	(70)	(70)	(20)	(20)	30	30	30	30	30
Free Cash Flow available to inve	5,183	1,285	437	882	790	1,036	1,280	1,880	1,911	2,203	2,530	2,964	3,183	3,429	3,471	3,839	4,008	4,138	4,257	4,396
Financial result	-228	-293	-327	-339	-430	-381	-372	-394	-416	-436	-457	-477	-497	-516	-534	-552	-572	-591	-610	-630
Change in Net Debt	489	854	1748	-269	1857	-244	586	594	534	570	562	535	495	495	498	529	514	524	541	561
Net change in Equity	-5444	-1845	-1858	-274	-2221	-411	-1494	-2080	-2030	-2337	-2635	-3021	-3181	-3408	-3436	-3815	-3950	-4071	-4188	-4327
Cash flow from investors	(5,183)	(1,285)	(437)	(882)	(794)	(1,036)	(1,280)	(1,880)	(1,911)	(2,203)	(2,530)	(2,964)	(3,183)	(3,429)	(3,471)	(3,839)	(4,008)	(4,138)	(4,257)	(4,396)

Capital Structure

	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F	2034F	2035F	2036F
Price	80	72	111	111																
# shares	327	305	279	278																
Market cap	26,114	21,899	30,942	30,885	43,941	47,532	50,300	53,105	55,629	58,320	60,975	63,500	65,840	68,177	70,531	73,030	75,457	77,930	80,484	83,135
Net debt	6,117	6,971	8,719	8,450	10,307	10,063	10,650	11,243	11,778	12,347	12,910	13,444	13,940	14,435	14,933	15,462	15,976	16,499	17,040	17,601
EV	32,231	28,870	39,661	39,335	54,249	57,595	60,950	64,349	67,407	70,667	73,885	76,945	79,780	82,612	85,464	88,492	91,433	94,429	97,524	100,736
D/EV	19%	24%	22%	21%	19%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
E/EV	81%	76%	78%	79%	81%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%
Adj EBITDA	1893	2102	2308	842	1,106	1,657	2,220	2,775	3,110	3,390	3,649	4,014	4,272	4,594	4,848	5,086	5,307	5,514	5,710	5,912
Net Debt/EBITDA	3.2	3.3	3.8	10.0	9.3	6.1	4.8	4.1	3.8	3.6	3.5	3.3	3.3	3.1	3.1	3.0	3.0	3.0	3.0	3.0

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Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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