

A Work Project, presented as part of the requirements for the Award of a Master Degree in Finance
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INTERCONTINENTAL HOTELS GROUP
– VALUATION IN UNCERTAIN TIMES

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Abstract

This report contains a valuation completed of InterContinental Hotels Group PLC, one of the largest hospitality companies worldwide. During this Work Project, it was forecasted IHG's future performance, its recovery and expansion following the COVID-19 pandemic and the impact of the current global economic uncertainty. To that end, analyses were conducted on macroeconomic, industry, and company-specific factors. Additionally, sensitivity analyses and relative valuation were conducted to strength the result of the DCF method. A target share price was estimated, which leads us to recommend investors to sell their positions on InterContinental Hotels Group.

Keywords: IHG, Equity Research, Valuation, Company Analysis

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This report is part of the INTERCONTINENTAL HOTELS GROUP PLC report (annexed), developed by MARIA LUÍSA ORNELAS MELIM and FRAUKE LÜHRS and should be read as an integral part of it.

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1. Introduction

The purpose of the joint report is to estimate the target price of InterContinental Hotels Group. The final share price of \$ 51.94 implies a SELL recommendation for the investors of the firm. The conclusion is based on an analysis of the company, the industry and the global macroeconomic context. To this end, the report initially provides a presentation of the company, followed by an analysis of the impact of the pandemic across the industry and the expectations for recovery. Then, some of the risks and trends identified are analysed in detail. IHG is also compared to its peers in several aspects. Moreover, the assumptions regarding the evolution of the company's value drivers are explained. In the next chapter, the aggregate impact of the assumptions on revenues is analysed, and the forecast of other items of the financial statements is described. Finally, the estimation of WACC is presented and applied in three scenarios through a DCF. Before the final recommendation, relative valuation and sensitivity analysis were performed to support the results.

The individual report contains the analysis of the hotel industry post-covid. Subsequently, the main macroeconomic risks faced by the company are identified and assessed. In addition, this report contains the comparison of IHG with its peers in terms of leverage and performance. Then, the assumptions regarding the evolution of value drivers in the base-case scenario are explained. Finally, the report contains the estimated cost of capital, consequently used in the DCF valuation in the base-case scenario, as well as several sensitivity analysis and relative valuation.

The other part contains the description and analysis of the company and of the industry pre-covid. Also, it includes the study of the identified trends in the industry, and the comparison of the price segments and core ROIC of IHG with its peers. Finally, it contains the scenario analysis and the recommendation.

2. Hotel Industry

2.1 Post-Covid

Although the Covid-19 pandemic has affected most business sectors, the hotel industry is amongst the ones that suffered the most considerable losses. Despite the attempt of hotels to adapt the customer experience to the new safety measures, travel restrictions and curfews imposed by governments caused a decline of the occupancy rates to historically low levels, hitting 23.5% in the US and 11% in Europe in April 2021¹. Facing these circumstances, many hotels closed temporarily, and needed to lay off their workforce. In aggregate, and because the average daily rate did not offset the negative variation of occupancy rates², most hotels in every region, on average, have observed a massive decline of their RevPAR (Figure 1).

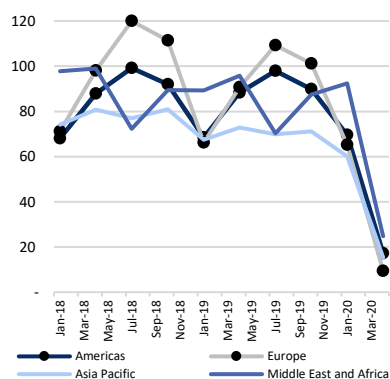


Figure 1. Monthly hotel RevPAR worldwide by region

Source: STR Global 2020

As the vaccination process progressed and the restrictions were gradually relaxed during 2021 and most definitely in 2022, customers have started to demonstrate their readiness to travel again, mainly for leisure purposes. In 2021, a shift of preferences to more rural experiences was observed in families³. In 2022, and despite the increase of ADRs justified by inflation and by the rise in demand, particularly for branded upscale and luxury class hotels¹, the hotels' occupancy has almost recovered to pre-Covid levels. In contrast, business travel spending growth has been slower, as companies have widely implemented remote work and online meetings¹.

Going forward, the increasing economic uncertainty and inflationary pressures, exacerbated by the war in Ukraine, create challenging conditions for the industry. The financial situation of customers, negatively affected by the increasing household costs, is one of the major barriers to travel in the nearest future¹. In this context, and worsened by the frequent disruption concerns, travellers increasingly value the flexibility of cancelling or rescheduling bookings, which is not always available. Overall, the way consumers will allocate their decreasing real incomes to travel budgets and the duration of the economic uncertainty will determine the upcoming hotels' performance. We find this particularly relevant for IHG, considering that it mostly generates revenue from the economy segment, which in turn depends on lower-income costumers, the most affected during economic downturns.

In the longer term, we anticipate leisure travellers will keep growing, moved by a

¹ STR 2022

² STR Global 2020

³ STR 2021

continuous increase of the population who desire to travel, heightened by the use of social media, and by the progressive growth of personal income, both in developed and in emerging markets. Thus, IHG and the industry are expected to keep expanding their room offer to seize the rising demand. At the same time, we expect that hotel owners will continuously respond to the new trends and preferences that will become prominent as more people desire to travel or to travel more, which we analyse further in chapter 3.2.1.

Regarding business travel, a STR study indicates that the pre-Covid travel volume might never be reached again⁴, as there are certain types of meetings which are expected to continue being conducted remotely for efficiency reasons. On the other hand, group travel is emerging as a new type of business meetings, mostly driven by the expansion of remote work, and is expected to grow and become a significant travel segment in the future. Still, as the new reality of working-from-anywhere shapes the sector and fades the lines between business and leisure tourism, hotels face an opportunity to target a new type of business travellers. Nevertheless, according to the Global Business Travel Association, business travel budgets are not expected to return rapidly, as companies anticipate a possible recession, which will require hoteliers, airline executives and conference organisers to adapt their business models to maintain revenues.

As such, it is expected that hotel chains will continue renting their rooms hourly during the day, a trend started in 2016 and now supported by the remote work growth⁵. The traditional workplace is changing, and the hospitality and tourism industries should adjust to it, by capitalizing properties for a blended purpose – being both a place of leisure and business, of work, rest and living. So far, the revenues derived from this segment are negligible, but the growth potential is worthy, once hotels have no drawbacks in increasing the room offer for this purpose, since it barely disturbs the night-time business. At the same time, remote work has increased the demand for extended stays⁶, and Airbnb had already faced it with a new product that combines both remote work and solo travelling trends⁷. Similarly, hotels are expected to expand their offer in this segment.

In general, in a post-Covid hotel world scenario, we expect the industry to grow through increasing conversions, diversification of services and brands offered, and rising competition among the whole hospitality sector. To that end, hotels should be responsive to shifts in consumer preferences, consider sustainability matters, and make use of technology. Additionally, we see the asset-light business to be

⁴ STR 2022

⁵ EHL Insights (n.d.)

⁶ Smart Meetings 2022

⁷ Airbnb 2022

continuously prioritized within the industry. During difficult times, as was the pandemic, the flexibility and the smaller fixed costs provided by this business model help relieving potential negative shocks.

3. Risks and Trends

3.1 Macroeconomic Risks

As part of a cyclical industry, IHG growth is particularly dependent on the global macroeconomic environment, but pays especial attention to the evolution of GDP, disposable incomes, and corporate profitability. Leisure and business travel are the most instantly impacted sectors by an economic downturn, once travelling is a nonessential need for which budgets shrink. Hence, evaluating these factors will help us determine the dimension of the imminent crisis and when to expect a partial recovery from it.

In the upcoming period, the global economy faces an uncertain outlook. Still reeling from the effects of the economic crisis caused by the Covid-19 pandemic, the onset of war in Ukraine has made economic recovery more difficult. According to International Monetary Fund (IMF), global real GDP growth will slow from last 2021's 6% to 3.2% in 2022 and 2.7% in the following year (Figure 2). By 2024, it is forecasted that real GDP growth will rebound to 3.2%, presumably tracked by the tourism industry.

After considering the current global situation and the stated projections, we found relevant to further analyse and understand the risks implied to IHG by the evolution of some macroeconomic factors, namely inflation and the labour market.

3.1.1 Inflation

Not only inflation influences price variables and, consequently, our valuation, the current higher-than-expected rates are triggering a contraction of global economy, of which IHG growth is highly reliant of.

In 2021, the general rise of prices worldwide was well above pre-pandemic levels⁸. The phenomenon is related to the economies' reopening as the pandemic faded, to the disrupted supply chains, and to the altered labour market. Since IHG's ADRs showed similar growth rates as CPI inflation, especially in the Americas and in EMEAA regions (Figure 3), hotel owners might suffer significant pressures in their operating costs and margins in case the current above-average inflation in energy and food prices persists.

Going forward, the results from monetary policy frameworks and the evolution of

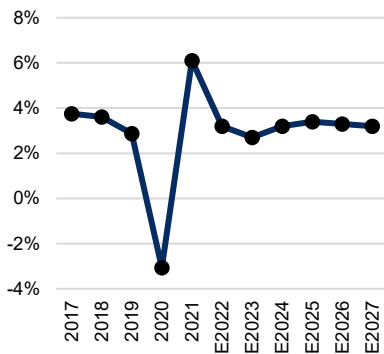


Figure 2. Global Gross Domestic Product (GDP) real growth

Source: IMF

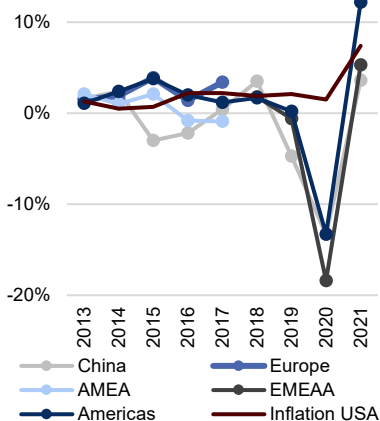


Figure 3. Inflation in the USA and IHG's ADR growth by region

Source: IHG Annual Supplementary Information; IMF.

⁸ IMF 2022

the war in Ukraine will determine the future price developments. IMF anticipates that the average inflation in the United States in 2022 will reach 8.1%, and 3.5% in 2023. Over the longer run, the Federal Reserve promises to make the needed adjustments in its monetary policy strategy, in order to achieve price stability, which implies an inflation rate of 2%⁹.

3.1.2 Labour Shortages

Besides the expected increase of unemployment levels, a consequence of the anticipated economic recession, which results in a decrease of leisure and business travel, IHG is exposed to other labour market related risks.

The pandemic has initiated a tightening of the labor market, particularly in Australia, Canada and the United States, mostly prominent in contact-intensive sectors such as manufacturing, accommodation and food¹⁰, of which IHG belongs to. In order to address this issue, the company stated, in 2021's annual report, the need to find efficient ways to reward and motivate the system's employees in order to increase talent retention. According to an OECD report, the recent labour shortages could have been caused by the sudden labour demand in the recovery from the pandemic, and/or because workers no longer accept low pay for poor working conditions. In both cases, companies will need to increase costs, either by improving the recruitment process or by improving wages and other benefits to attract workers. As inflation is expected to rise further, we believe that it will become more difficult for IHG's hotel owners to manage its staff costs, which puts its quality and, eventually, profitability levels at risk. Additionally, labour constraints may also decelerate the pace of construction and openings.

4. Comparison IHG vs. Peers

4.1 Financials

Regarding leverage, when considering the company's balance sheet, IHG might seem over-leveraged, given its negative value of equity. Overall, this can be explained by the adoption of an asset-light business model, which results in low PPE amounts, and thus in a low value of assets. In fact, and even though the chosen peers are all asset-light, the most indebted ones - IHG, Hilton and Marriott (Figure 4) - are indeed the ones with less rooms allocated to the owned and leased business. In contrast, when considering market values of equity and debt, IHG has been having healthy net debt to enterprise value ratios of around 18% until 2020 (Figure 5). An exception is noticed in 2021, when the ratio decreased to 14%, as the company repaid some debt to continue complying with covenants, that were

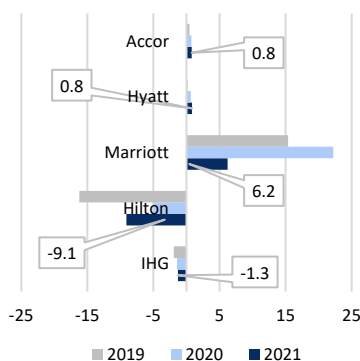


Figure 4. IHG and peers' net debt to book value of equity

Source: IHG and Peer's Annual Report, Analysts.

⁹ Federal Reserve System 2022

¹⁰ OECD 2022

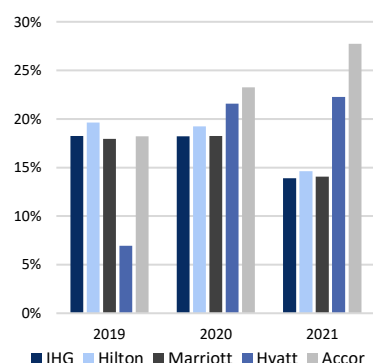


Figure 5. IHG and peers' net debt to enterprise value

Source: Refinitiv, Analysts.

	EBIT Margin			EBITDA Margin		
	2019	2020	2021	2019	2020	2021
IHG	17%	7%	17%	19%	12%	21%
HLT	17%	-3%	18%	20%	5%	21%
MAR	9%	7%	13%	11%	10%	14%
H	4%	-31%	-8%	10%	-16%	2%
AC	12%	-41%	-10%	20%	-24%	1%

Figure 6. IHG and peers' EBIT and EBITDA margins

Source: Analysts.

deteriorated by the pandemic, and to preserve its credit rating. Similarly, in 2019, the ratios of Marriott, Hilton and Accor ranged between 18% and 20%. The debt ratios of peers also changed significantly in 2021 and varied from 14% to 28%. Differently, Hyatt has lower historical Debt to EV ratios, which in 2019 was of 7%, but of 22% in 2021.

In terms of profitability, IHG and its peers were compared based on their EBIT and EBITDA margins, to circumvent the discrepancies relating to the impact of depreciations and amortizations, given the different proportions invested in PPE and intangible assets. Since companies were not expected to be fully recovered from the negative impact of the pandemic, we analysed IHG and its peers from 2019 onwards. In both EBIT and EBITDA margins, IHG and Hilton present equal margins of around 18% and 21% in 2021, respectively (Figure 6). Accor's EBITDA margin was close to IHG's (20.4%) in 2019 only. Marriott and Hyatt's margins are considerably lower than the others', both having an EBITDA ratio of around 11% in 2019, but apart EBIT margins. Comparing to 2019, we realize that IHG, Hilton and Marriott have recovered and exceeded their profitability levels in 2021. In contrast, Hyatt and Accor have only reached, in 2021, slightly positive margins.

In sum, IHG performs similar to its peers with regards to margins and debt ratios. However, the financial results should not be considered alone to determine a recommendation as the calculated share price includes also IHG's ability to provide something unique in the future, which the market has currently not priced in.

5. Value Drivers

The two main parameters to calculate hotel revenue are RevPAR and the number of rooms available. While the components of RevPAR can be reliably forecasted by expecting the ADR growth to be close to inflation and by relying on studies that presume economic recovery to happen in 2025, the most complex variable is the number of hotel rooms available, by which RevPAR needs to be multiplied to obtain total revenue.

5.1 Hotel Development per Region

The future room count depends on the number of rooms in the pipeline in the previous years and on construction time. The number of rooms in the development pipeline were forecasted as a percentage of the existing ones in each region. In this section, we will only explain our assumptions on the base-case scenario.

In the Americas, we expect IHG will continue maintaining, on average, 22% of its total franchised rooms, and 13% of its managed rooms in the pipeline. Due to supply chain disruptions following the Covid-19 pandemic, we expect the average construction time of hotels to increase to five years until 2023 and return to three

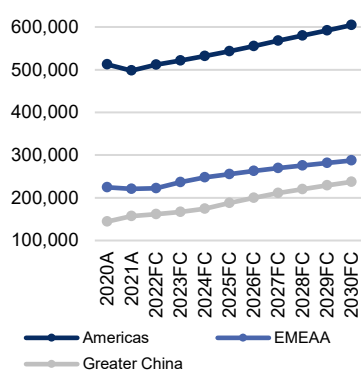


Figure 7. Number of rooms in fee business, by region

Source: IHG, Analysts.

years from 2025 onwards. Although Americas is the most significant and mature region, we expect rooms to continue growing in this region (CAGR of 2.16% until 2032).

In the EMEAA region, considering it represented only 25% of the total IHG system in 2021, we expect its growth potential to be slightly higher than in the Americas. Recently, IHG has launched new Premium and Luxury & Lifestyle brands, focused on EMEAA, namely voco, Six Senses and Vignette Collection. Considering the success of these brands at such an early stage, we anticipate they will continue to be developed by the company. As such, and because hotels of these categories are predominantly managed, we anticipate these will be the highest source of growth of EMEAA. In contrast, we expect franchised hotels in the pipeline will remain quite stable in proportion to existing rooms. However, once we are expecting a slower economic recovery in Europe than in America, which translates into higher construction times and a smaller percentage of hotels finished, the resulting future growth is lower than in the past (CAGR 2021-2032 of 2.80%).

In November 2022, IHG signed a long-term strategic alliance with Iberostar Hotels & Resorts to add approximately 24.300 new rooms in the Americas and EMEAA regions, which ownership will be fully retained by the partner. The 70 hotels are exclusively located at beachfronts, adding value to IHG's luxury resort portfolio. As announced, around half of the rooms will be opened in 2022 already, which we assumed to be 80% in Americas and 20% in EMEAA. The remainder will be progressively opened until 2024 in Spain and in other locations in Europe and Africa. Even though 8.200 rooms still require additional approval, we assumed all of them will be accomplished. Because the new brand was not reflected in the pipeline of the company, the new hotels were forecasted separately. Going forward, we do not expect IHG to sign similar alliances in the future, where a representative number of hotels is added in a short time period, but to launch its own brands instead.

In the last decade, IHG's rooms in Greater China have been growing considerably, representing 18% of the total system in 2021, against the 9% observed in 2012. Going forward, we expect the company to be in line with the sectors' evolution in the region, which will grow, according to WTTC, at an average of 9.7% during the next decade. Still, in the long term, we expect tourism GDP to grow above average. Accordingly, we see that, by 2032, rooms in this region will amount to 22% of the total system. Such growth will be boosted by lower construction times, estimated to be around 2 years from 2025 onwards, and by a recovery of domestic and outbound travel after Covid-19 related restrictions are lifted by 2023 end. Additionally, not only there is still a significant share of economy independent hotels to possibly franchise, IHG has the advantage of being one of the most

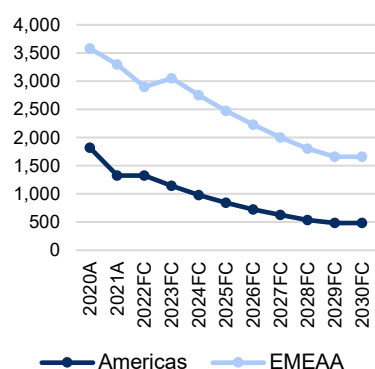


Figure 8. Number of rooms of owned, leased, and managed leased business, by region

Source: IHG, Analysts.

represented foreign hotel groups in China already. Accordingly, we anticipate rooms in this region will grow by 3% only in 2022 and 2023, and by 5.4% every year, on average, between 2024 and 2029. From 2032 onwards, we see rooms growing by 3.7% annually, and to represent 34% of the total rooms in the pipeline.

In aggregate, we assumed that, on average, 9% of the rooms in the pipeline of each region would be opened every year until 2032. This is below the 12% average between 2013 and 2019, due to the higher construction times and uncertainty environment considered during the upcoming years, especially in EMEAA and in China.

Regarding the owned, leased and managed leased hotels, opened in the Americas and EMEAA regions, we assumed the company will decrease the number of rooms by 10% annually until 2029, on average, in both regions. We are sure that, after the challenges faced during the pandemic, hoteliers will continue focusing on the fee business segment, given the higher flexibility it provides. Thus, we assumed IHG will not add new rooms to the pipeline, as the total number of rooms has been decreasing since 2020. In fact, no new rooms were added to the pipeline since 2016 in the Americas, which supports our conclusion that the company does not have intentions to invest in this segment. In EMEAA, we assume the only hotel in the pipeline since 2018 will open in 2023. As a result, in 2032, the owned, leased and managed leased rooms will represent 0.2% of the total system, significantly lower than the 0.5% average from 2012 until 2021.

5.2 Occupancy

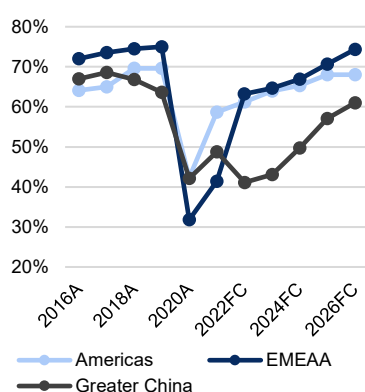


Figure 9. Occupancy rates of fee business, by region

Source: IHG, Analysts.

The demand for hotel rooms was highly affected during the pandemic. As the travel restrictions have faded in most countries during 2022, consumers have partially recovered their confidence to travel again. Still, so far in 2022, IHG's occupancy rates are far from pre-pandemic levels, especially in China. Going forward, we have forecasted future occupancy rates as a percentage of 2017-2019 average, for each region, until the respective recovery year, and to remain stable afterwards. We have considered appropriate, yet conservative, to use such averages as they are below the maximum occupancy rates ever observed in each region. This way, we consider the potential negative impact of the previously analysed risks and trends is being incorporated.

So far in 2022, the Americas region has recovered 90% of its pre-pandemic occupancy rate, well above EMEAA and Greater China regions' performance (85% and 62%, respectively), which we expect to remain stable until the end of the year. For this reason, and as we expect the Americas to be less affected by the economic slowdown in the following years than EMEAA, we assume this region will recover its pre-covid occupancy rate faster than the others. Thus, in the base-case

scenario, the Americas will reach its pre-covid occupancy rate of 68% in 2025, EMEAA of 74% in 2026, and Greater China of 66% in 2027. Until then, we see occupancy rates to gradually increase every year.

In EMEAA, we find reasonable to consider a slower recovery in this region, as Europe's proximity to the war implies stronger negative impacts on its economy, namely higher inflation, which ultimately affects households' and businesses' travel spending.

Differently, in Greater China, the late recovery is mainly due to the travel restrictions imposed within the region since the beginning of the pandemic, which are expected to be over by the end of 2023 only. After the restrictions are eased, we expect foreign travel to recover immediately. However, domestic travel represents the most part of travel in this region. As Chinese population has been restricted to travel since 2020, especially abroad, we anticipate an increase in outbound tourism after 2023 to postpone a full recovery to 2027.

5.3 ADR

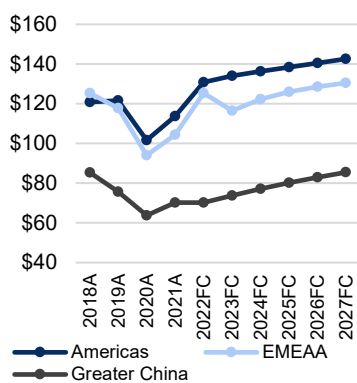


Figure 10. Evolution of ADR of fee business, by region

Source: IHG, Analysts.

When the demand for hotel rooms fell in 2020, ADRs in all regions decreased accordingly. Even though the occupancy rates haven't yet recovered fully in 2022, the ADRs in EMEAA and in the Americas region have surpassed substantially their average pre-covid rates (\$118 and \$119, respectively). Going forward, and despite the steady recovery of demand, we do not expect ADRs to keep growing at rates well above inflation in the short-term, as observed in 2021 and 2022. Instead, in the Americas, we see the ADR to continuously increase slightly below inflation, as observed in the past, by 1.5% annually, on average, until 2032.

In EMEAA, however, we predict the ADR to first decrease by 7% in 2023, returning to its pre-covid rate, in a way to disincentivize a slowdown in demand in Europe, given the higher level of uncertainty. From 2024 onwards, the ADR will increase by 1.9% annually, on average. Similarly, in the owned and leased segment, we assume the ADRs in both Americas and EMEAA regions will grow below expected inflation from 2023 onwards, resulting in an annual average of 1%.

As previously analysed, the evolution of ADR in China cannot be easily linked to CPI inflation in the USA. Until 2019, we cannot attribute such instability to changes in the yuan-USD exchange rates, as the company reports data at constant rates, but to higher competition and growth of hotels in lower price segments. Going forward, we anticipate the recovery of travel demand and China's economy will allow ADRs to grow by 4%, on average, until 2027, and to stabilize at 1% in 2030.

6. Valuation

6.1 Cost of Capital

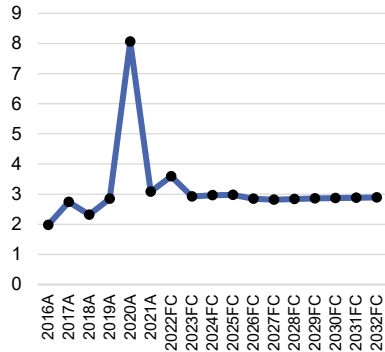


Figure 11. Evolution of the net debt to adjusted EBITDA ratio

Source: IHG, Analysts.

To derive the share price of IHG, the Discounted Cash Flow Method (DCF) was applied to primarily value the company's operations, using the weighted average cost of capital (WACC). This approach was considered appropriate as the capital structure is not expected to change significantly. Not only the company aims to continue maintaining an investment-grade credit rating, which is monitored based on a target net debt to adjusted EBITDA of 2.5 to 3x (Figure 11), but also it has been preserving a capital structure similar to its peers. Even though IHG had an unusual leverage ratio of 14% in 2021, going forward we expect the ratio to return and stabilize at 18%, which was kept between 2018 and 2020. The company has recently announced a \$500m share buyback, which besides being part of the long trackrecord of returning cash to shareholders, it is a sign of its intentions to rebalance the debt to value ratio.

The estimation of WACC requires further inputs. First, the Capital Asset Pricing Model was used to calculate the cost of equity. As a proxy for the risk-free rate, we chose the 10y US Treasury Yield (3.48%) as of December 13th, 2022. For the estimation of beta, IHG's excess returns were regressed against a proxy for the market excess return, MSCI World (in \$), using monthly returns for the last five years (from December 2017 until end of November 2022), which led to a levered beta of 1.24 within a confidence interval from 0.97 to 1.51. Given such a wide interval and to improve the precision of our beta estimation, we regressed IHG's peers (Accor, Hilton, Hyatt and Marriott) returns against the MSCI World denominated either in \$ or €, depending on the peers' listing location. Since peers have slightly distinct capital structures, the resultant betas were unlevered and re-levered to IHG's target debt to enterprise ratio (D/EV) to allow comparability.

	IHG	Hilton	Marriott	Hyatt	Accor
Levered β	1.24	1.25	1.61	1.39	1.09
Re	9.7%	9.7%	11.5%	10.4%	9.2%
Target D/EV	18%	19%	18%	22%	18%
D/E	22%	24%	22%	28%	22%
Rf	3.5%	3.5%	3.5%	3.5%	0.8%
Rd	5.8%	5.8%	5.5%	5.7%	4.7%
Ru	9.0%	9.0%	10.4%	9.4%	8.4%
Unlevered β	1.10	1.10	1.39	1.19	1.51
Re-levered Re	9.7%	9.7%	11.5%	10.2%	9.2%
Re-levered β	1.24	1.23	1.60	1.35	1.09

Table 1. Betas of IHG and peers

The re-levered betas of peers nearly replicate IHG's confidence interval, amounting to an average of 1.32. Still, when comparing to IHG's beta, we raised the concern that the average beta could be too high. Consequently, the rolling beta

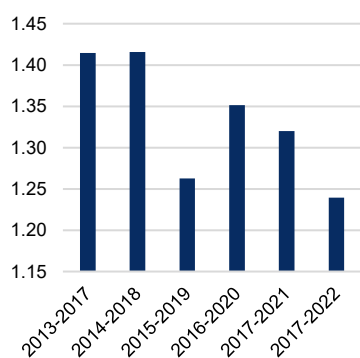


Figure 12. IHG rolling betas

Source: Analysts.

of IHG and its evolution from 2013 onwards was analysed (Figure 12). The most recent 5-year period leads to the lowest beta observed (1.24), emphasising the progressive decrease of beta over the years. Nevertheless, we have considered it to be too low, as it reflects an exceptionally less volatile period started in 2021, when the company had a significantly lower leverage ratio (14%). Accordingly, we continued our analysis using a levered beta of 1.3, close to the average rolling betas of IHG from 2015 to 2021 (1.29), which we consider to be the most representative of the future.

With this beta, a nominal risk-free rate of 3.48% and an expected market risk premium of 5%, the cost of equity resulted in 9.98%. Consequently, this is the minimum return investors would demand for an equity investment, which means that in order to raise an additional \$1, the company must pay almost \$0.10, which is \$0.0028 more than Hilton, but \$0.015 less than Marriott. According to different studies^{11,12}, historical excess returns over 10-year government bonds range between 3% and 5.5%. Given the current uncertain economic context, and that risk premiums increase towards the upper range during crisis¹³, we consider 5% to be a reasonable estimate.

To estimate the cost of debt, the yield to maturity (YTM) of IHG's bond maturing in 2028 (BBB rated by S&P) and the corresponding default and recovery rates were considered. A probability of default of 0.25% and a recovery rate of 53.9% were defined according to Moody's estimations¹⁴, and given a YTM of 5.91%, the cost of debt was estimated to be 5.79%. Regarding the tax rate, we expect the 19% US statutory tax rate to remain constant in the future. Finally, and as a result of all the stated assumptions, WACC amounts to 9.03%,

6.2 Intrinsic Valuation

The unlevered free cash flows (FCF) of IHG were forecasted until 2032, once the company reaches its steady state.

To compute IHG's core enterprise value (EV) with the DCF Method, the future operational FCF were discounted using WACC. From 2032 onwards, the company's NOPLAT was expected to perpetually grow by 4.5%, a product of the stabilized return on new invested capital (RONIC) and reinvestment rate (RR), of 274% and 1.6%, respectively. As we expect revenue to grow more than rooms in perpetuity (3.1% and 2.4%, respectively), NOPLAT ends up growing at a higher rate than revenues. Still, such growth of IHG seems reasonable when comparing to the estimated nominal GDP growth of 5% until 2060, according to OECD's

¹¹ McKinsey and Company Inc. et al. 2015

¹² Berk and DeMarzo 2015

¹³ Graham and Harvey 2009

¹⁴ Moody's Investors Service 2018

forecasted real GDP growth rate of 3% and assuming an inflation rate of 2%. As a result, IHG's value of operations amounts to \$11,602m.

	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Unlevered Operating FCF	423	504	368	680	641	667	684	691	722	754
Value of Operations	11,602	12,146	12,874	13,357	13,922	14,513	15,139	15,816	16,522	17,260
Book Value of Non-Operating Business	157	209	234	281	294	304	315	325	337	349
Total Enterprise Value	11,758	12,355	13,108	13,638	14,217	14,817	15,454	16,141	16,859	17,609
Net Debt and Other Claims	(2,116)	(2,224)	(2,359)	(2,455)	(2,559)	(2,667)	(2,782)	(2,905)	(3,035)	(3,170)
Equity (@ market)	9,642	10,131	10,749	11,183	11,658	12,150	12,673	13,236	13,825	14,440
Number of shares outstanding	175,169,658						WACC		9.0%	
Share Price (Base Case)	\$55.04						g in perpetuity		4.5%	

Table 2. Discounted Cash Flow valuation

Subsequently, the book value of non-operations of 2023 was added, which summed to a total EV of \$11,758m. Finally, it was subtracted the net debt and non-controlling interest book values in 2023 to reach an equity value of \$9,642m, which corresponds to a share price of \$55.04 in the base-case scenario.

6.3 Sensitivity Analysis

Accounting for uncertainty in our estimations of the cost of capital, we judged appropriate to observe how WACC would change when being subjected to different inputs. In particular, the sensitivity of the cost of equity in dependence of the MRP and the beta was tested. The beta values were chosen within the confidence interval (0.94 to 1.51). For the market risk premium, we considered the same range of historical excess returns analysed in the estimation of cost of equity. Furthermore, the WACC sensitivity to the cost of equity between 8.35% and 11.01% (derived by different levels of beta) and the cost of debt between 5.3% and 6.5% was performed. Again, to test how IHG's value responds to changes in key inputs, a sensitivity analysis of the share price has been performed to different WACC and perpetual growth rate (g) (Table 3). To determine the values of g, another sensitivity analysis was done on RONIC and RR, similarly as for WACC. Finally, the expected range for WACC is 8.10% to 9.67% and g is anticipated to be between 3.6% and 5.2%. The respective ranges result in a share price between \$41.5 and \$87.3 in the base case scenario. The upper end is above IHG's highest share price of \$74.12, reached on February 22, 2021. Hypothetically, WACC would need to decrease below 8.10%, and simultaneously g would need to be above 4.7% for the share price to become close to its 2021 level, which we evaluate as

unlikely to happen. Therefore, the sensitivity analysis shows that even if market conditions change favourably, IHG is not expected to reach its all-time peak until the end of 2023.

Growth Rate	WACC							
	\$55.0	8.1%	8.4%	8.7%	9.0%	9.2%	9.5%	9.7%
	3.6%	60.3	55.6	51.5	47.8	45.6	43.5	41.5
	3.9%	63.7	58.5	54.0	50.0	47.5	45.3	43.2
	4.2%	67.6	61.8	56.7	52.4	49.7	47.2	44.9
	4.5%	72.1	65.5	59.9	55.0	52.1	49.4	46.9
	4.7%	76.4	69.1	62.9	57.6	54.4	51.4	48.8
	4.9%	81.4	73.2	66.3	60.4	56.9	53.7	50.8
	5.2%	87.3	77.9	70.1	63.6	59.7	56.2	53.1

Table 3. Share Price Sensitivity to WACC and g (Base Case)

		Reinvestment Rate						
RONIC	4.48%	1.1%	1.3%	1%	1.6%	1.8%	2.0%	2.3%
	218%	2.3%	2.9%	3.2%	3.6%	3.9%	4.3%	5.1%
	232%	2.4%	3.0%	3.4%	3.8%	4.2%	4.6%	5.4%
	246%	2.6%	3.2%	3.6%	4.0%	4.4%	4.8%	5.8%
	273%	2.9%	3.6%	4.0%	4.5%	4.9%	5.4%	6.4%
	287%	3.0%	3.8%	4.2%	4.7%	5.2%	5.6%	6.7%
	300%	3.2%	3.9%	4.4%	4.9%	5.4%	5.9%	7.0%
	314%	3.3%	4.1%	4.6%	5.2%	5.7%	6.2%	7.4%

Table 4. Growth Rate Sensitivity to RR and RONIC (Base Case)

Fee change, in pp	Share Price
-0.5%	\$45.17
-0.25%	\$50.06
0%	\$55.04
0.25%	\$60.09
0.5%	\$65.17

Figure 13. Share price sensitivity to management fee

Source: Analysts.

Applying the mentioned ranges of WACC and g to the best-case scenario, a share price between \$46.7 and \$95.6 can be expected. Similarly, the worst-case scenario would result in \$36.3 - \$77.9 per share. However, as the two additional scenarios were only given a combined weight of 30%, the sensitivity analysis adds most value for the base scenario.

Additionally, we found relevant to perform a sensitivity analysis on the management fees. As mentioned previously, we assumed the management fees of each region to be an average of the estimated percentages between 2016 and 2021, and to remain stable during the whole forecasting period. Even though the percentages did not fluctuate much in the past (between 0.5 pp in China and 1 pp in the Americas), we are concerned that it is a very strong assumption. Therefore, we tested how the share price would change if the management fees increased or decreased by 0.5% in all regions, simultaneously, in the base case scenario. This range indirectly implies that the management fees will never become higher or lower than in the past, except in Greater China. In result, the share price would range between \$45.17 and \$65.17. As we do not expect IHG to either increase or decrease the management fees at such a high magnitude, and maintain it constant, we conclude that it was reasonable, yet conservative, to consider the past averages in the forecast.

6.4 Relative Valuation

2021	EV/EBITDA	EV/EBIT	P/E	EV/Rooms
IHG	23	27	45	0.016
HLT	46	55	107	0.052
MAR	36	41	49	0.048
HLT	244	-57	-47	0.048
AC	496	-46	573	0.013
2019	EV/EBITDA	EV/EBIT	P/E	EV/Rooms
IHG	17	20	32	0.017
HLT	23	28	35	0.045
MAR	30	35	39	0.049
H	18	48	12	0.039
AC	15	24	24	0.016

Figure 14. IHG and peers' multiples in 2019 and 2021

Source: Analysts; Annual Reports.

Even though the DCF analysis has the advantage of being extremely flexible to our assumptions, the final value is fully dependent on their accuracy. For this reason, and to test the reliability of our forecasts, relative valuation was used as a complementary approach to value IHG. The companies considered for this purpose were the same as for the beta computations (Marriott, Hilton, Hyatt and Accor), and they were compared based on the following multiples, considered the most appropriate: Prices to Earnings (P/E), EV to EBIT (EV/EBIT), EV to EBITDA (EV/EBITDA), and EV to Number of rooms. Considering that 2021 was not a typical business year, we have also computed the multiples of 2019, the year before the pandemic (Figure 14).

In 2021, the EBIT, EBITDA and earnings of all the analysed companies decreased substantially, but the Equity and Enterprise Value did not decrease at the same magnitude, or even increased, which resulted in excessively high multiples, when comparing to 2019's. In particular, EV to Number of rooms was the multiple that better resisted from 2019 to 2021 as it highlights the differences in companies' main price segments. In sum, considering 2019's median EV/EBITDA multiple, IHG's relative valuation imply a share price of \$67, EV/EBIT multiple of \$94 and P/E multiple of \$69, which are not in line with the DCF model intrinsic price, as expected. Once 2019's multiples do not reflect the impact of Covid-19 on the companies' cash-flows, it would be relevant to analyse forward-looking multiples instead (Figure 15). The forward-multiple valuations do better reflect the DCF share price.

	Forward Multiples		
	EV/EBITDA	EV/EBIT	P/E
IHG	13	14	20
HLT	16	18	25
MAR	14	17	21
AC	12	18	24
HLT	12	27	39
1st Qt.	12	16	22
Median	13	17	24
3rd Qt.	14	18	26
Average	13	17	27
	Share Price		
1st Qt.	\$41.5	\$49.1	\$44.3
Median	\$42.5	\$53.7	\$48.0
3rd Qt.	\$50.5	\$55.2	\$51.2
Average	\$46.3	\$50.7	\$47.4

Figure 15. IHG and peers' forward multiples and IHG's resulting share price

Source: Refinitiv; Analysts.

Especially, EV to EBITDA has proved to be an appropriate multiple for the hotel industry as the values vary only slightly between companies, even though it does not validate the assumptions and result of the DCF valuation. On average, an EV/EBITDA multiple based on the chosen peer group would suggest a share price of \$46.3, within a range of \$41.5 and \$50.5 (DCF: \$50.04, base case). We are concerned that, and as mentioned in previous chapters, the peers differ mainly in the served price segments and room count. Considering that the DCF method relies on many assumptions, and to simultaneously to account for the shortcoming of the relative valuation method, we decided to give the share price obtained by EV/EBITDA multiple a weight of 30% in the final recommended share price.

INTERCONTINENTAL HOTELS GROUP PLC

TOURISM

STUDENT: LUÍSA MELIM, FRAUKE LÜHRS

COMPANY REPORT

14TH DECEMBER 2022

50540@novasbe.pt, 51296@novasbe.pt

**InterContinental Hotels Group – Equity
Research Report**

*Performance evaluation while recovering from the
Covid-19 pandemic*

- Based on our FY23 target price of \$51.94, the upside potential (including dividend) is -12.8%, compared to the price level of December 13th, 2022. We issue a **SELL recommendation** for IHG.
- Our target share price is a weighted average consisting of 70% DCF price and 30% EV/EBITDA multiple. More precisely, the DCF share price is incorporating 20% worse and 10% better economic conditions, impacting RevPAR and hotel construction.
- Although IGH has better financials than its peers and a much higher asset turnover, suggesting a competitive standpoint, our calculated share price suggests that the company is **overvalued**.
- IHG fully adapts to the **asset-light business model** trend, but we did not find that IHG adapts better to other industry trends than its peers. Personalized stays, digital check-ins and renting out business apartments during the day are common in the industry.
- Macroeconomic risks involve a pandemic recovery being postponed due to **inflationary pressures** in 2022 and 2023, which results in occupancy rates being below its 2019-level in the short term.

Company description

InterContinental Hotels Group PLC is a leading multinational British hotel chain. With 5,991 open hotels and 1,797 in the development pipeline, IHG serves customers across 100 countries. Its portfolio consists of 18 brands, categorised into luxury, upscale, midscale and economy hotels.

Recommendation: **SELL**

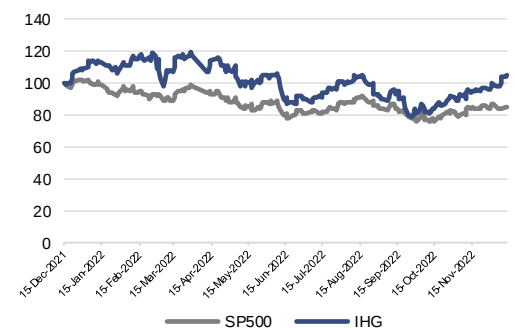
Price Target FY23: **\$51.94**

Price (as of 13-Dec-22) **\$62.41**

Reuters: IHG, Bloomberg: IHG:US

52-week range(USD)	\$47.6 - \$73.4
Market Cap (\$m)	10.650
Outstanding Shares (m)	175.17

Source: Reuters



Source: Refinitiv

(Values in \$ millions)	2021	2022E	2023F
Revenues	2,918	3,722	4,019
EBITDA	604	732	764
Net Profit	265	298	371
EPS	1.45	1.70	2.12
P/E	45	31	25
EV/EBITDA	23	15	15
EV/Rooms	0.016	0.012	0.013
Operating Margin	13%	13%	12%
ROIC	52%	117%	88%

Source: IHG Annual Report; Analysts

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY LUÍSA MELIM AND FRAUKE LÜHRS, MASTER'S IN FINANCE 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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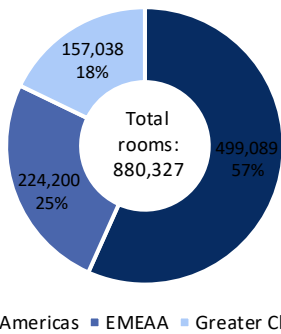


Figure 1. IHG room distribution per region

Source: IHG Annual Report

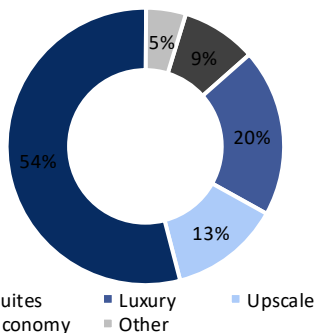


Figure 2. IHG revenue per price segment

Source: IHG Annual Report

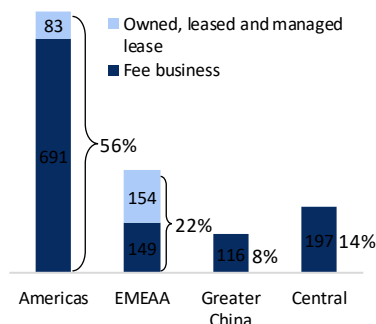


Figure 3. IHG revenue distribution per region and ownership type

Source: IHG Annual Report

1. Company Overview

Intercontinental Hotels Group PLC is one of the leading hotel companies worldwide. Its purpose is to provide “true hospitality for good”. The British multinational company was founded in 2003 and its worldwide headquarters are in Denham, Buckinghamshire, England. The portfolio consists of 18 hotel brands, with a total of 5,991 hotels and 880,327 rooms. IHG’s operating segments reflect its geographical regions: Americas, Europe, Middle East, Asia, and Africa (EMEAA), and Greater China. As 56% of the revenue is generated in the Americas region, it is the most important source of revenue.

IHG’s hotels can be categorized into different price segments - suites, luxury, upscale, economy, and other (see Figure 2). The dominating category is the economy segment (Holiday Inn, Holiday Inn Express and avid), which consists of 4,282 hotels, amounting to 71% of the total hotel count. The two Holiday Inn brands account for 54% of the groups’ hotel revenue. Holiday Inn Express’ number of hotels grew by 21% in the past five years. Target customers of the economy segment are travellers looking for an affordable stay. In December 2021, there were 145,600 rooms in the economy segment’s pipeline (all regions), accounting for more than half of the company’s total room pipeline, which indicates further growth within this segment. With regards to revenue, the second most important segment are the luxury brands (Six Senses, Regent, InterContinental, Vignette Collection, Kimpton and Hotel Indigo), accounting for approximately 20% of the group’s revenue. The luxury segment represents only 11.7% of the total room count, which highlights their premium pricing strategy. With 204 open hotels, the most significant brand within this segment is InterContinental as it generates 14% of IHG’s hotel revenue. The upscale pricing hotels generate 13% of revenue, which consist of HUALUXE, exclusively operating in the Chinese market, Crowne Plaza, EVEN Hotels and voco. Similarly, there is one dominating brand, Crown Plaza, operating 404 hotels and accounting for 12% of the revenue from hotel brands. Staybridge Suites and Candlewood Suites represent 8% of the total number of rooms and generate 9% of the hotel revenue. The company has been expanding its current brand portfolio by opening voco and avid hotels in 2018 and Six Senses in 2019. Moreover, Atwell Suites and Vignette Collection were added to the pipeline in 2019 and 2021, respectively.

The company is generating hotel revenue by franchised, managed, and owned and leased properties (Figure 3). The fee business is generating 83% of the hotel revenue, categorized in franchised and managed hotels (Figure 4). Overall, the owned and leased segment declined by 53% in size over the past three years,

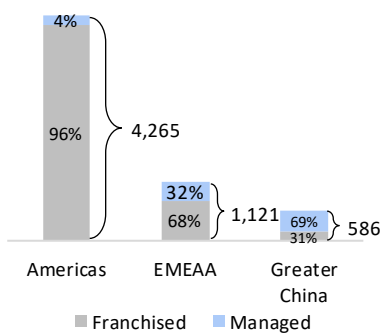


Figure 4. IHG number of hotels of fee business

Source: IHG Annual Report

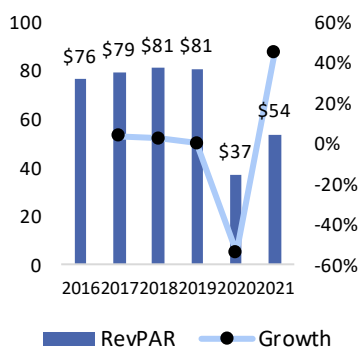


Figure 5. IHG RevPAR and RevPAR growth

Source: IHG Annual Report

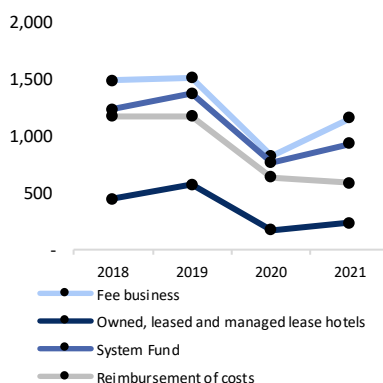


Figure 6. IHG sources of revenue development

Source: IHG Annual Report

contributing only 8% of total revenue in 2021. For the franchised hotels, IHG is receiving a fixed percentage of the room revenue per guest staying at the hotel. This revenue model is common in mature markets such as the Americas, where 96% of IHG's hotels are franchised. The managed business model is predominant in emerging markets, where the IHG collects a fixed percentage of the total hotel revenue. In Greater China, 79% of the hotels are managed. In sum, the fee business has been dominating the owned and leased hotels, which account for only 0.5% of the company's hotels. Recording the entire revenue and profit requires intensive resources, which let this business model appear unfavourable compared to the fee business. Consequently, IHG follows an asset-light strategy, focusing on fee revenue growth and improving fee margins by reducing capital requirements. The hotel chain has neither employees in the hotel nor it controls their operations. Thus, the model reduces the exposure to fluctuations in the economy. The resilience of the model was demonstrated during the pandemic, as in 2021 RevPAR in the fee business reached 69% of pre-pandemic levels, whereas RevPAR from owned hotels was only 48% of its 2019 level (Figure 5).

IHG manages a system fund, into which third-party hotel owner pay assessments and contributions. The fund's objective is not to generate a profit as its capital is designated to specific marketing, reservations, and loyalty programme purposes. In 2021, the system fund accounted for 32% of total revenue. Similarly, the reimbursement of costs do not have an impact on net profit as those costs have already incurred. However, they represent 20% of IHG's total revenue in 2021.

The group's hotel revenue grew by 8% in 2019, fell by 52% in 2020 and increased again by 40% in 2021, reaching 67% of its pre-pandemic revenue from 2019. Comparing revenue per region of 2021 with pre-pandemic figures, Americas record 74.4% and China 85.9%, whereas EMEAA reached only 41.9%. Considering that that Americas represent 56% of the total revenue, the US recovery is significant for the group's overall performance (Figure 6).

2. Hotel Industry

2.1 Pre-Covid

With a beta of 1.3, the hotel industry is cyclical, relying on macroeconomic pressures affecting supply and demand. Before the Covid-19 outbreak, markets were increasing and the hotel and resort industry grew constantly, reaching a size of \$1.52tn in 2019.¹ Taking into consideration the five years before the pandemic,

¹ IBIS World 2022

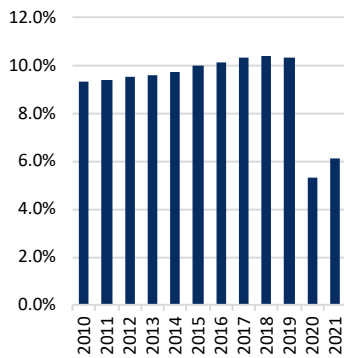


Figure 7. Share of tourism in GDP worldwide

Source: Oxford Economics 2022

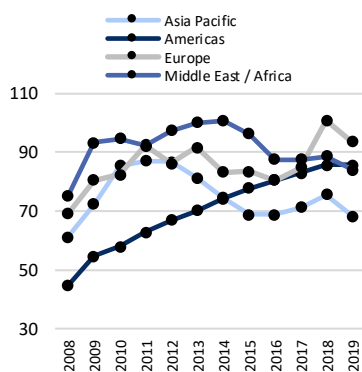


Figure 8. RevPAR hotel industry worldwide by region

Source: STR 2020

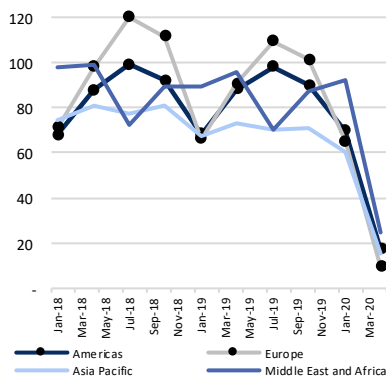


Figure 9. Monthly hotel RevPAR worldwide by region

Source: STR Global 2020

the average share of tourism in GDP was 10.2% (Figure 7), underlining the relevance of this sector.² Within the past 20 years, personal disposable income increased by 30%.³ Correspondingly, the leisure tourism spending worldwide increased by 24.7% from 2016 to 2019, while the expenditure of business tourism increased by 13.5%, respectively.⁴

From 2008 to 2018, industry RevPAR increased by 92% in Americas and 46% in Europe (Figure 8), highlighting the two most relevant geographical hotel markets.⁵ In general, 2019 monthly occupancy rates were the highest in Europe, averaging at 72.3%, followed by 69.6% in Asia and 65.7% in Americas. With regards to global average daily rates, there was a constant increase in Americas, reaching \$139.4 in 2018. From 2012 to 2017, Asia, Middle East and Africa recorded a decline of ADR of 23.1% and 12.8%, respectively. In 2019, ADRs of Americas, Europe, Middle East and Africa converged at approximately \$130.⁶ Over the past six years, the major hotel groups (IHG, Marriott, Hilton, Wyndham, and Accor), increased their market share to 24.3%, causing increased barriers to entry for new market entrants.

2.2 Post-Covid

Although the Covid-19 pandemic has affected most business sectors, the hotel industry is amongst the ones that suffered the most considerable losses. Despite the attempt of hotels to adapt the customer experience to the new safety measures, travel restrictions and curfews imposed by governments caused a decline of the occupancy rates to historically low levels, hitting 23.5% in the US and 11% in Europe in April 2021⁷. Facing these circumstances, many hotels closed temporarily, and needed to lay off their workforce. In aggregate, and because the average daily rate did not offset the negative variation of occupancy rates⁶, most hotels in every region, on average, have observed a massive decline of their RevPAR (Figure 9).

As the vaccination process progressed and the restrictions were gradually relaxed during 2021 and most definitely in 2022, customers have started to demonstrate their readiness to travel again, mainly for leisure purposes. In 2021, a shift of preferences to more rural experiences was observed in families⁸. In 2022, and despite the increase of ADRs justified by inflation and by the rise in demand,

² Oxford Economics 2022

³ Oxford Economics 2021

⁴ GBTA 2021

⁵ STR 2020

⁶ STR Global 2020

⁷ STR 2022

⁸ STR 2021

particularly for branded upscale and luxury class hotels⁹, the hotels' occupancy has almost recovered to pre-Covid levels. In contrast, business travel spending growth has been slower, as companies have widely implemented remote work and online meetings⁹.

Going forward, the increasing economic uncertainty and inflationary pressures, exacerbated by the war in Ukraine, create challenging conditions for the industry. The financial situation of customers, negatively affected by the increasing household costs, is one of the major barriers to travel in the nearest future⁹. In this context, and worsened by the frequent disruption concerns, travellers increasingly value the flexibility of cancelling or rescheduling bookings, which is not always available. Overall, the way consumers will allocate their decreasing real incomes to travel budgets and the duration of the economic uncertainty will determine the upcoming hotels' performance. We find this particularly relevant for IHG, considering that it mostly generates revenue from the economy segment, which in turn depends on lower-income costumers, the most affected during economic downturns.

In the longer term, we anticipate leisure travellers will keep growing, moved by a continuous increase of the population who desire to travel, heightened by the use of social media, and by the progressive growth of personal income, both in developed and in emerging markets. Thus, IHG and the industry are expected to keep expanding their room offer to seize the rising demand. At the same time, we expect that hotel owners will continuously respond to the new trends and preferences that will become prominent as more people desire to travel or to travel more, which we analyse further in chapter 3.2.1.

Regarding business travel, a STR study indicates that the pre-Covid travel volume might never be reached again⁹, as there are certain types of meetings which are expected to continue being conducted remotely for efficiency reasons. On the other hand, group travel is emerging as a new type of business meetings, mostly driven by the expansion of remote work, and is expected to grow and become a significant travel segment in the future. Still, as the new reality of working-from-anywhere shapes the sector and fades the lines between business and leisure tourism, hotels face an opportunity to target a new type of business travellers. Nevertheless, according to the Global Business Travel Association, business travel budgets are not expected to return rapidly, as companies anticipate a possible recession, which will require hoteliers, airline executives and conference organisers to adapt their business models to maintain revenues.

⁹ STR 2022

As such, it is expected that hotel chains will continue renting their rooms hourly during the day, a trend started in 2016 and now supported by the remote work growth¹⁰. The traditional workplace is changing, and the hospitality and tourism industries should adjust to it, by capitalizing properties for a blended purpose – being both a place of leisure and business, of work, rest and living. So far, the revenues derived from this segment are negligible, but the growth potential is worthy, once hotels have no drawbacks in increasing the room offer for this purpose, since it barely disturbs the high-time business. At the same time, remote work has increased the demand for extended stays¹¹, and Airbnb had already faced it with a new product that combines both remote work and solo travelling trends¹². Similarly, hotels are expected to expand their offer in this segment.

In general, in a post-Covid hotel world scenario, we expect the industry to grow through increasing conversions, diversification of services and brands offered, and rising competition among the whole hospitality sector. To that end, hotels should be responsive to shifts in consumer preferences, consider sustainability matters, and make use of technology. Additionally, we see the asset-light business to be continuously prioritized within the industry. During difficult times, as was the pandemic, the flexibility and the smaller fixed costs provided by this business model help relieving potential negative shocks.

3. Risks and Trends

3.1 Macroeconomic Risks

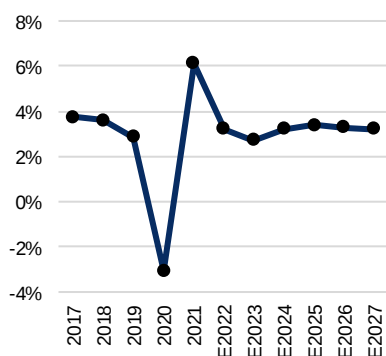


Figure 10. Global Gross Domestic Product (GDP) real growth

Source: IMF

As part of a cyclical industry, IHG growth is particularly dependent on the global macroeconomic environment, but pays especial attention to the evolution of GDP, disposable incomes, and corporate profitability. Leisure and business travel are the most instantly impacted sectors by an economic downturn, once travelling is a nonessential need for which budgets shrink (Figure 7). Hence, evaluating these factors will help us determine the dimension of the imminent crisis and when to expect a partial recovery from it.

In the upcoming period, the global economy faces an uncertain outlook. Still reeling from the effects of the economic crisis caused by the Covid-19 pandemic, the onset of war in Ukraine has made economic recovery more difficult. According to International Monetary Fund (IMF), global real GDP growth will slow from last 2021's 6% to 3.2% in 2022 and 2.7% in the following year (Figure 10). By 2024, it

¹⁰ EHL Insights (n.d.)

¹¹ Smart Meetings 2022

¹² Airbnb 2022

is forecasted that real GDP growth will rebound to 3.2%, presumably tracked by the tourism industry.

After considering the current global situation and the stated projections, we found relevant to further analyse and understand the risks implied to IHG by the evolution of some macroeconomic factors, namely inflation and the labour market.

3.1.1 Inflation

Not only inflation influences price variables and, consequently, our valuation, the current higher-than-expected rates are triggering a contraction of global economy, of which IHG growth is highly reliant of.

In 2021, the general rise of prices worldwide was well above pre-pandemic levels¹³. The phenomenon is related to the economies' reopening as the pandemic faded, to the disrupted supply chains, and to the altered labour market. Since IHG's ADRs showed similar growth rates as CPI inflation, especially in the Americas and in EMEAA regions (Figure 11), hotel owners might suffer significant pressures in their operating costs and margins in case the current above-average inflation in energy and food prices persists.

Going forward, the results from monetary policy frameworks and the evolution of the war in Ukraine will determine the future price developments. IMF anticipates that the average inflation in the United States in 2022 will reach 8.1%, and 3.5% in 2023. Over the longer run, the Federal Reserve promises to make the needed adjustments in its monetary policy strategy, in order to achieve price stability, which implies an inflation rate of 2%¹⁴.

3.1.2 Labour Shortages

Besides the expected increase of unemployment levels, a consequence of the anticipated economic recession, which results in a decrease of leisure and business travel, IHG is exposed to other labour market related risks.

The pandemic has initiated a tightening of the labor market, particularly in Australia, Canada and the United States, mostly prominent in contact-intensive sectors such as manufacturing, accommodation and food¹⁵, of which IHG belongs to. In order to address this issue, the company stated, in 2021's annual report, the need to find efficient ways to reward and motivate the system's employees in order to increase talent retention. According to an OECD report, the recent labour shortages could have been caused by the sudden labour demand in the recovery

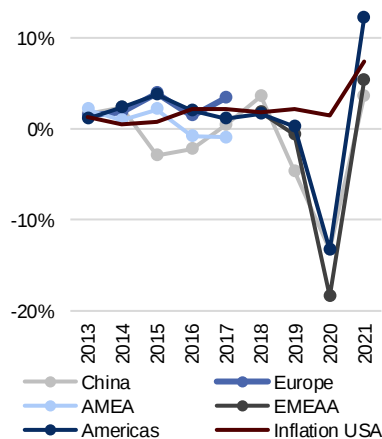


Figure 11. Inflation in the USA and IHG's ADR growth by region

Source: IHG Annual Supplementary Information; IMF.

¹³ IMF 2022

¹⁴ Federal Reserve System 2022

¹⁵ OECD 2022

from the pandemic, and/or because workers no longer accept low pay for poor working conditions. In both cases, companies will need to increase costs, either by improving the recruitment process or by improving wages and other benefits to attract workers. As inflation is expected to rise further, we believe that it will become more difficult for IHG's hotel owners to manage its staff costs, which puts its quality and, eventually, profitability levels at risk. Additionally, labour constraints may also decelerate the pace of construction and openings.

3.2 Competitive Business Models and Trends

3.2.1 Peer-to-peer Accommodation

Intercontinental Hotels Group is competing with new business models. Peer-to-peer accommodation is characterized by people renting out a room or their apartment, house or tent for a short period of time through a digital platform. The main service provider is Airbnb, founded in 2008 in San Francisco.

The business model of IHG and Airbnb differ in several ways. When a person books a room or a holiday apartment on the Airbnb website, a service fee of 6-12% is added to the renting fee. Airbnb's revenue consists of this service fee and an additional 3% received by the host for every successful transaction. After the stay, both host and visitor evaluate each other, rating the other party from one to five stars. The mutual rating may explain why Airbnb's quality score (4.5) is on average higher than the one of the hotels listed on Trip Advisor (3.8)¹⁶. This positive bias is impacting the accuracy of Airbnb's review system, but it does not seem relevant when analysing the development of Airbnb bookings (Figure 12). In 2018 and 2019, Airbnb recorded growth rates of above 30% annually and its 2021 booking are already at 91.9% of its pre-pandemic 2019 level, indicating a faster recovery than IHG.

Following the IPO price of \$68 per share, Airbnb stock opened for trading at \$146 on 5th December 2020, marking a plus of 114.7%. The home-rental software platform had a market capitalisation of \$72.67bn (as of September 2022), similar to Booking Holding's market capitalization of 78.98bn. However, as of November 2022, concerns about inflation and interest rates caused Airbnb's market capitalization to decrease by 20%.

Research has quantified Airbnb's disruptive impact on US hotel markets, especially in the mainstream segment. The increase of Airbnb supply impacts hotel revenue negatively but not significantly.¹⁷ Constant pre-pandemic growth rates in

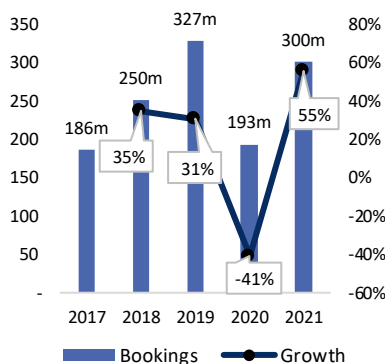


Figure 12. Airbnb bookings development

Source: Airbnb Annual Report

¹⁶ www.bu.edu

¹⁷ Dogru, T., Mody, M. & Suess, C. 2019

the hotel market may be justified by the fact that Airbnb has a different customer base. Target customers are travellers looking for an affordable, home-like stay with kitchen facilities, thus the effect of cannibalization in the upscale and luxury segment is minimized. However, in 2017, Airbnb acquired Luxury Retreats, creating the brand “Airbnb Luxe”, diversifying the existing portfolio. Overall, the rapid growth of peer-to-peer accommodation was possible due to not being dependant on long construction times, which should not be neglected when forecasting IHG’s hotel revenue. In general, we expect IHG to offset the not significant impact on revenue from competitive business models by generating daytime revenue, explained in the next chapter.

▪ 3.2.2 Workspaces and Day Usage

Day Usage is a hospitality trend that just started.

The combination of working and vacation became popular during the Covid-19 pandemic, where home office was mandatory for certain industries. Working from anywhere can be a risk for the hotel industry if it does not adapt its hotels to this trend. Hotels need to invest in reorganizing part of their rooms into office space to meet the demand of business travellers. Before the pandemic, IHG launched already the Plaza Workspace program, which was aimed to redesign their rooms. The Crown Plaza brand offers the option to book a studio space with on-screen support and connectable flat screens, designed for smaller meetings and co-working. However, more investments in flexible working rooms will be necessary in the future.

Another trend is to book hotel rooms, often luxury brands, for pre-determined time slots for a break during the day or to take advantage of the wellness and spa area. Daytime slots are priced at a discount of up to 70%, compared to an overnight stay. Time slots can be booked on a platform called dayuse.com, which lists over 7,000 hotels worldwide that offer the possibility of day use.

This is an interesting opportunity for the hotel to not only receive revenue from the overnight stay, but also from renting out rooms during the day. IHG started generating daytime revenue in most recent years but does not report it as a separate caption yet. We will forecast future daytime revenue, adding value to our analysis by exploring to what extend this trend can boost hotel revenue. Details of out daytime revenue assumptions can be found in revenue forecast chapter 6.1.1.

▪ 3.2.1 Other Hospitality Trends

Besides the asset-light business model, which evolved after the financial crisis in 2008 to minimize risks and daytime revenue from leisure and business travellers, other trends were identified. First, digital guest experiences are critical. The IHG

app simplifies the booking process and allows a digital check-in. However, monetary investments are necessary to implement, for example, facial recognition software to open hotel rooms.¹⁸ Equally important is the implementation of sustainable operations and products as an integral part of their business strategy. The online sustainability management tool “IHG Green Engage” is designed to guide hotels, helping them to reduce waste and manage resources such as energy and water more efficiently. However, IHG’s peers have similar apps and systems in place, suggesting that no competitive advantage is achieved in terms of technology and sustainability.

Another trend are resorts. IHG partnered with Iberostar, adding new resorts to the portfolio. Similarly, Marriott launches several new luxury resorts to remain competitive with peers that have a larger number of luxury resorts in their portfolio already. Sustainable furniture, eco-friendly linen and a tourism that respects local communities are especially demanded to be incorporated in the luxury segment.

To conclude, Intercontinental Hotels adapts to industry trends, but so do its peers. Adding luxury resorts does not change IHG’s clear focus on the economy segment, which is further explained in the next chapter.

4. Comparison IHG vs. Peers

4.1 Price Segments and Key Figures

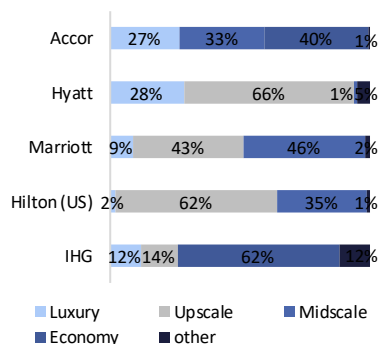


Figure 13. Room distribution per price segment as of 2021

Source: IHG and Peer’s Annual Report

IHG’s most comparable peers are Hilton, Marriott, Hyatt, and Accor. However, when comparing their financials, it is important to take into consideration their different focuses in their price segments (Figure 13). InterContinental’s core category is economy hotels, amounting to 71.5% of their total hotel count. Similarly, Accor counts 51.8% of their hotels in the economy segment, making it most comparable to IHG in terms of price segments. When combining the economy and the midscale segment, Accor is dominating this segment with 82.5% of its hotels being categorized as either midscale or upscale. The midscale market is dominated by Hilton and Marriott with 51.3% and 66.3% of the respective company’s hotels being assigned to this category. Hyatt sets a clear focus on upscale (72.9%) and luxury (22.8%) hotels as almost all their hotels belong to these categories, reducing competitive pressures by serving segments that are not primarily served by its competitors. However, there is competition in the upscale market as Hilton assigned 46.5% of its hotels in this segment. Taking into consideration absolute numbers, the two biggest players in the hotel market are

¹⁸ Hospitality Insights 2022

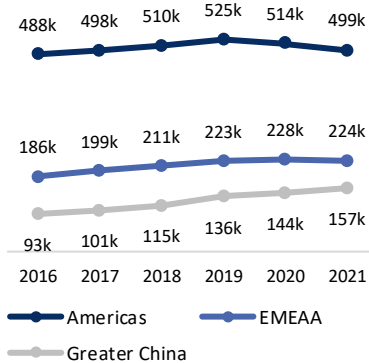


Figure 14. IHG room growth per region

Source: IHG Annual Report

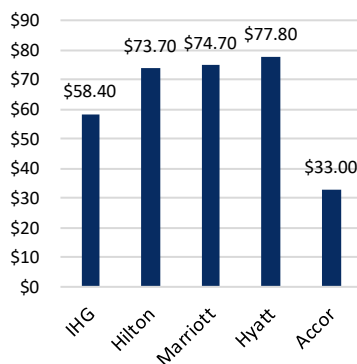


Figure 15. IHG and peers' RevPAR in 2021

Source: Respective Annual Reports

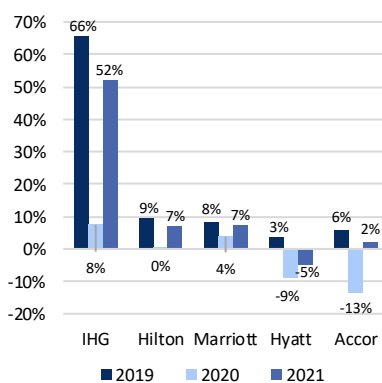


Figure 16. IHG and peers' core business ROIC

Source: IHG and Peers Annual Reports, Analysts

Marriott and Hilton, serving 1.48m and 1.07m rooms, respectively. IHG is placed third with 880,000 available rooms, followed by Accor with 778,000 rooms. Hyatt seemed most comparable to IHG by having assigned a similar number of hotels to the same price segments, but the overall room volume is considerably lower, with 300,000 available rooms. Similarly, IHG's hotel count is five times larger than the amount of hotels Hyatt currently has in its portfolio.

With regards to the geographical regions, IHG, Hilton, Marriott, and Hyatt have between half and two thirds of their business activity (measured in number of rooms) in America. Again, absolute room figures show that Marriott and Hilton have about twice as many rooms in America available than IHG but analysing the presence in Europe, Hilton and Marriott have half the room count of IHG. In contrast to the mainly America focused peers, Accor serves primarily the European and Asian-Pacific market, making the brand less comparable to IHG in general (Figure 14).

When dividing IHG and its peers into fee business and owned hotels, the results underline the industry wide trend. At least 95% of the total rooms available are generating fee revenue instead of being owned by the company. Although the five hotel chains seem comparable in terms of business activity, the mentioned differences are relevant when evaluating the multiple valuation.

	IHG	Hilton	Marriott	Hyatt	Accor
Revenue, in millions	\$2,918	\$5,788	\$13,857	\$3,028	€ 2,204
EBIT, in millions	\$506	\$1,017	\$1,758	\$-251	€ -228
EBIT Margin	17.3%	17.6%	12.7%	-8.3%	-10.3%
RevPAR	\$58.4	\$73.7	\$74.7	\$77.8	\$33.0
Occupancy	52.5%	57.2%	51.3%	48.4%	42.3%
ADR	\$111.2	\$128.8	\$145.6	\$160.8	\$78.0
Rooms	880,327	1,074,791	1,479,179	300,102	777,714
Rooms in pipeline	270,960	407,900	485,000	113,000	211,000
Hotels	5,991	6,837	7,989	1,200	5,298
Hotels in pipeline	1,797	2,668	2,831	540	1,203
Geographical focus	America 56.7%	America 75.2%	America 68.1%	America 67.0%	Europe 44.0%
% Fee Business	99.5%	98.3%	98.9%	94.9%	97.0%

Table 1. Comparison IHG vs. peers (as of 2021)

4.2 Core Business ROIC

A segmentation by region would add most value if the fundamental value drivers of the respective geographical units were different. Our analysis did not find significant differences among the regions and therefore, no further segmentation of the core business was conducted to obtain core operating margin and core asset turnover.

In terms of operating margin (Figure 17), IGH is most comparable to Hilton and Marriott. In 2021, all three companies were able to generate an operating margin above its pre-pandemic level. While Accor was able to recover from its negative

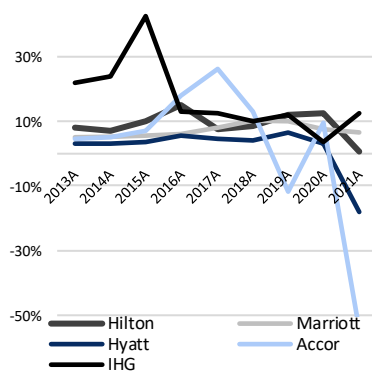


Figure 17. IHG and peers' core operating margin

Source: IHG and Peer Annual Report, Analysts

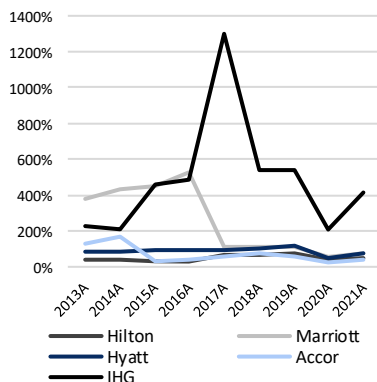


Figure 18. IHG and peers' core asset turnover

Source: IHG and Peer Annual Report, Analysts

operating margin during the pandemic, Hyatt's margin remained negative in 2021. The comparatively low margin of Accor can be explained by lower revenues, while expenses remained stable. Hyatt was hit most significantly by the pandemic as the governments in its core markets (Asia and Europe) imposed stricter lockdowns and closures of hotels. Thus, 2020 revenues were reduced to 31% of the previous year's level. A 24% increase in expenses, while revenue not even doubled, resulted in a negative operating margin.

The extraordinary high asset turnover of IHG indicates that the company is managing its resources very efficiently (Figure 18). The key difference is the low amount of invested capital, resulting from IHG's asset light business strategy, owning only 19 hotels. Although all peer companies are asset light too, and expected to be even more in the future, IHG approaches this strategy more drastically, having allocated 99.5% of its hotels to fee business. While Accor and IHG generate a similar amount of revenue, the peers' core invested capital is almost eight times higher than IHG's. Besides the lower PPE amounts of IHG justified by the asset light business, the company has also comparatively proportionally lower intangible assets than its peers. Not only IHG has a smaller number of brands than its peers, but most of its brands were not acquired and therefore not accounted in the balance sheet. When comparing IHG to Accor, the most similar in terms of dimension and price segments, we see that the peers' intangibles were four times higher than IHG's in 2021, at the same time it has 39 brands in its portfolio, of which several ones were acquired. Thus, IHG's asset-light position can be justified by a lower brand portfolio and by not acquiring brands. In aggregate and given that IHG's operating margin is close to that of its peers, we conclude that its higher performance stems from the fact that its capital invested in PPE, and in goodwill and brands is considerably lower than theirs. Finally, none of the peer's revenue exceeded its core invested capital, resulting in asset turnovers below 100%. Due to a significant reduction of core invested capital by 43% and an 21% increase in revenue, IHG asset turnover doubled, reaching 414% in 2021.

In conclusion and given that IHG's operating margin is similar to that of some of its peers, the comparably high asset turnover has driven its consistent higher core ROIC. In 2020, core business ROIC decreased to 8% but recovered quickly and increased to 52% in 2021. Similar to Hilton and Marriott, core business ROIC reached between 80-90% of its pre-pandemic level. Overall, it is important to consider that Hyatt and Accor were the most affected by the pandemic, influencing the accuracy of static relative valuation method, applied to supplement the results obtained from the DCF.

4.3 Financials

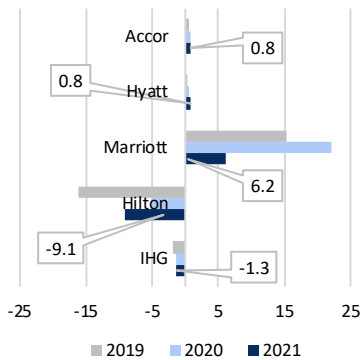


Figure 19. IHG and peers' net debt to book value of equity

Source: IHG and Peer's Annual Report, Analysts.

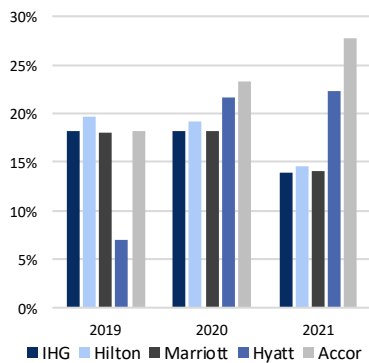


Figure 20. IHG and peers' net debt to enterprise value

Source: Refinitiv, Analysts.

	EBIT Margin			EBITDA Margin		
	2019	2020	2021	2019	2020	2021
IHG	17%	7%	17%	19%	12%	21%
HLT	17%	-3%	18%	20%	5%	21%
MAR	9%	7%	13%	11%	10%	14%
H	4%	-31%	-8%	10%	-16%	2%
AC	12%	-41%	-10%	20%	-24%	1%

Figure 21. IHG and peers' EBIT and EBITDA margins

Source: Analysts.

Regarding leverage, when considering the company's balance sheet, IHG might seem over-leveraged, given its negative value of equity. Overall, this can be explained by the adoption of an asset-light business model, which results in low PPE amounts, and thus in a low value of assets. In fact, and even though the chosen peers are all asset-light, the most indebted ones - IHG, Hilton and Marriott (Figure 19) - are indeed the ones with less rooms allocated to the owned and leased business (Table 1). In contrast, when considering market values of equity and debt, IHG has been having healthy net debt to enterprise value ratios of around 18% until 2020 (Figure 20). An exception is noticed in 2021, when the ratio decreased to 14%, as the company repaid some debt to continue complying with covenants, that were deteriorated by the pandemic, and to preserve its credit rating. Similarly, in 2019, the ratios of Marriott, Hilton and Accor ranged between 18% and 20%. The debt ratios of peers also changed significantly in 2021 and varied from 14% to 28%. Differently, Hyatt has lower historical Debt to EV ratios, which in 2019 was of 7%, but of 22% in 2021.

In terms of profitability, IHG and its peers were compared based on their EBIT and EBITDA margins, to circumvent the discrepancies relating to the impact of depreciations and amortizations, given the different proportions invested in PPE and intangible assets. Since companies were not expected to be fully recovered from the negative impact of the pandemic, we analysed IHG and its peers from 2019 onwards. In both EBIT and EBITDA margins, IHG and Hilton present equal margins of around 18% and 21% in 2021, respectively (Figure 21). Accor's EBITDA margin was close to IHG's (20.4%) in 2019 only. Marriott and Hyatt's margins are considerably lower than the others', both having an EBITDA ratio of around 11% in 2019, but apart EBIT margins. Comparing to 2019, we realize that IHG, Hilton and Marriott have recovered and exceeded their profitability levels in 2021. In contrast, Hyatt and Accor have only reached, in 2021, slightly positive margins.

In sum, IHG performs similar to its peers with regards to margins and debt ratios. However, the financial results should not be considered alone to determine a recommendation as the calculated share price includes also IHG's ability to provide something unique in the future, which the market has currently not priced in.

5. Value Drivers

The two main parameters to calculate hotel revenue are RevPAR and the number of rooms available. While the components of RevPAR can be reliably forecasted by expecting the ADR growth to be close to inflation and by relying on studies that presume economic recovery to happen in 2025, the most complex variable is the number of hotel rooms available, by which RevPAR needs to be multiplied to obtain total revenue.

5.1 Hotel Development per Region

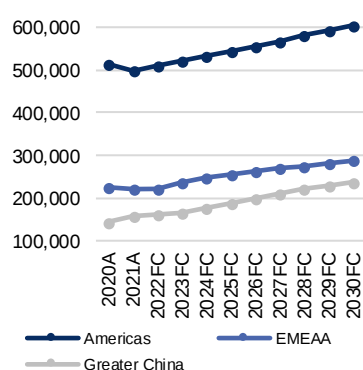


Figure 22. Number of rooms in fee business, by region

Source: IHG, Analysts.

The future room count depends on the number of rooms in the pipeline in the previous years and on construction time. The number of rooms in the development pipeline were forecasted as a percentage of the existing ones in each region. In this section, we will only explain our assumptions on the base-case scenario.

In the Americas, we expect IHG will continue maintaining, on average, 22% of its total franchised rooms, and 13% of its managed rooms in the pipeline. Due to supply chain disruptions following the Covid-19 pandemic, we expect the average construction time of hotels to increase to five years until 2023 and return to three years from 2025 onwards. Although Americas is the most significant and mature region, we expect rooms to continue growing in this region (CAGR of 2.16% until 2032).

In the EMEAA region, considering it represented only 25% of the total IHG system in 2021, we expect its growth potential to be slightly higher than in the Americas. Recently, IHG has launched new Premium and Luxury & Lifestyle brands, focused on EMEAA, namely voco, Six Senses and Vignette Collection. Considering the success of these brands at such an early stage, we anticipate they will continue to be developed by the company. As such, and because hotels of these categories are predominantly managed, we anticipate these will be the highest source of growth of EMEAA. In contrast, we expect franchised hotels in the pipeline will remain quite stable in proportion to existing rooms. However, once we are expecting a slower economic recovery in Europe than in America, which translates into higher construction times and a smaller percentage of hotels finished, the resulting future growth is lower than in the past (CAGR 2021-2032 of 2.80%).

In November 2022, IHG signed a long-term strategic alliance with Iberostar Hotels & Resorts to add approximately 24.300 new rooms in the Americas and EMEAA regions, which ownership will be fully retained by the partner. The 70 hotels are exclusively located at beachfronts, adding value to IHG's luxury resort portfolio. As announced, around half of the rooms will be opened in 2022 already, which we

assumed to be 80% in Americas and 20% in EMEAA. The remainder will be progressively opened until 2024 in Spain and in other locations in Europe and Africa. Even though 8.200 rooms still require additional approval, we assumed all of them will be accomplished. Because the new brand was not reflected in the pipeline of the company, the new hotels were forecasted separately. Going forward, we do not expect IHG to sign similar alliances in the future, where a representative number of hotels is added in a short time period, but to launch its own brands instead.

In the last decade, IHG's rooms in Greater China have been growing considerably, representing 18% of the total system in 2021, against the 9% observed in 2012. Going forward, we expect the company to be in line with the sectors' evolution in the region, which will grow, according to WTTC, at an average of 9.7% during the next decade. Still, in the long term, we expect tourism GDP to grow above average. Accordingly, we see that, by 2032, rooms in this region will amount to 22% of the total system. Such growth will be boosted by lower construction times, estimated to be around 2 years from 2025 onwards, and by a recovery of domestic and outbound travel after Covid-19 related restrictions are lifted by 2023 end. Additionally, not only there is still a significant share of economy independent hotels to possibly franchise, IHG has the advantage of being one of the most represented foreign hotel groups in China already. Accordingly, we anticipate rooms in this region will grow by 3% only in 2022 and 2023, and by 5.4% every year, on average, between 2024 and 2029. From 2032 onwards, we see rooms growing by 3.7% annually, and to represent 34% of the total rooms in the pipeline.

In aggregate, we assumed that, on average, 9% of the rooms in the pipeline of each region would be opened every year until 2032. This is below the 12% average between 2013 and 2019, due to the higher construction times and uncertainty environment considered during the upcoming years, especially in EMEAA and in China.

Regarding the owned, leased and managed leased hotels, opened in the Americas and EMEAA regions, we assumed the company will decrease the number of rooms by 10% annually until 2029, on average, in both regions. We are sure that, after the challenges faced during the pandemic, hoteliers will continue focusing on the fee business segment, given the higher flexibility it provides. Thus, we assumed IHG will not add new rooms to the pipeline, as the total number of rooms has been decreasing since 2020. In fact, no new rooms were added to the pipeline since 2016 in the Americas, which supports our conclusion that the company does not have intentions to invest in this segment. In EMEAA, we assume the only hotel in the pipeline since 2018 will open in 2023. As a result, in 2032, the owned, leased

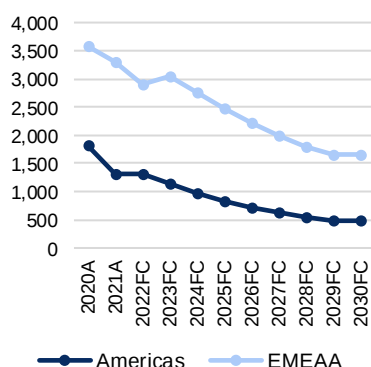


Figure 23. Number of rooms of owned, leased, and managed leased business, by region

Source: IHG, Analysts.

and managed leased rooms will represent 0.2% of the total system, significantly lower than the 0.5% average from 2012 until 2021.

5.2 Occupancy

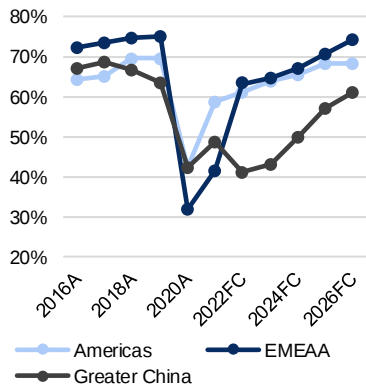


Figure 24. Occupancy rates of fee business, by region

Source: IHG, Analysts.

The demand for hotel rooms was highly affected during the pandemic. As the travel restrictions have faded in most countries during 2022, consumers have partially recovered their confidence to travel again. Still, so far in 2022, IHG's occupancy rates are far from pre-pandemic levels, especially in China. Going forward, we have forecasted future occupancy rates as a percentage of 2017-2019 average, for each region, until the respective recovery year, and to remain stable afterwards. We have considered appropriate, yet conservative, to use such averages as they are below the maximum occupancy rates ever observed in each region. This way, we consider the potential negative impact of the previously analysed risks and trends is being incorporated.

So far in 2022, the Americas region has recovered 90% of its pre-pandemic occupancy rate, well above EMEAA and Greater China regions' performance (85% and 62%, respectively), which we expect to remain stable until the end of the year. For this reason, and as we expect the Americas to be less affected by the economic slowdown in the following years than EMEAA, we assume this region will recover its pre-covid occupancy rate faster than the others. Thus, in the base-case scenario, the Americas will reach its pre-covid occupancy rate of 68% in 2025, EMEAA of 74% in 2026, and Greater China of 66% in 2027. Until then, we see occupancy rates to gradually increase every year.

In EMEAA, we find reasonable to consider a slower recovery in this region, as Europe's proximity to the war implies stronger negative impacts on its economy, namely higher inflation, which ultimately affects households' and businesses' travel spending.

Differently, in Greater China, the late recovery is mainly due to the travel restrictions imposed within the region since the beginning of the pandemic, which are expected to be over by the end of 2023 only. After the restrictions are eased, we expect foreign travel to recover immediately. However, domestic travel represents the most part of travel in this region. As Chinese population has been restricted to travel since 2020, especially abroad, we anticipate an increase in outbound tourism after 2023 to postpone a full recovery to 2027.

5.3 ADR

When the demand for hotel rooms fell in 2020, ADRs in all regions decreased accordingly. Even though the occupancy rates haven't yet recovered fully in 2022,

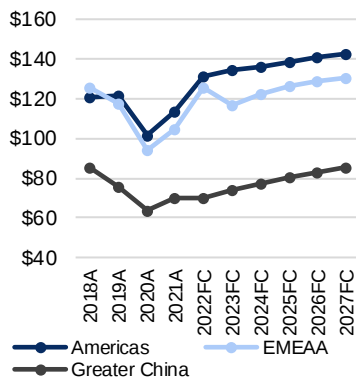


Figure 25. Evolution of ADR of fee business, by region

Source: IHG, Analysts.

the ADRs in EMEAA and in the Americas region have surpassed substantially their average pre-covid rates (\$118 and \$119, respectively). Going forward, and despite the steady recovery of demand, we do not expect ADRs to keep growing at rates well above inflation in the short-term, as observed in 2021 and 2022. Instead, in the Americas, we see the ADR to continuously increase slightly below inflation, as observed in the past, by 1.5% annually, on average, until 2032.

In EMEAA, however, we predict the ADR to first decrease by 7% in 2023, returning to its pre-covid rate, in a way to disincentivize a slowdown in demand in Europe, given the higher level of uncertainty. From 2024 onwards, the ADR will increase by 1.9% annually, on average. Similarly, in the owned and leased segment, we assume the ADRs in both Americas and EMEAA regions will grow below expected inflation from 2023 onwards, resulting in an annual average of 1%.

As previously analysed, the evolution of ADR in China cannot be easily linked to CPI inflation in the USA. Until 2019, we cannot attribute such instability to changes in the yuan-USD exchange rates, as the company reports data at constant rates, but to higher competition and growth of hotels in lower price segments. Going forward, we anticipate the recovery of travel demand and China's economy will allow ADRs to grow by 4%, on average, until 2027, and to stabilize at 1% in 2030.

6. Valuation

6.1 Forecast

6.1.1 Revenue

IHG revenue can be decomposed into revenue from fee business, revenue from owned, leased, and managed leased hotels, system fund revenue and reimbursement of costs. Fee business revenue has always been IHG's most important source of revenue, and it will continue to account for 40% of total revenue.

IHG receives a specific percentage, the management fee, of the total room revenue of its franchised and managed hotels, which is referred to as fee revenue. The company does not report the fees' percentage, so we have estimated them in the past. As the fees did not change much, averages were calculated and applied in the forecast, resulting in fees of 5.80% in Americas, 4.60% in EMEAA and 5.90% in China (Figure 26). Applying the assumptions described in the previous chapter, total revenue from fee business will reach its pre-pandemic level by 2023 (\$1,538m) (Figure 27). Fee business revenue growth rates of 10% in 2025 will constantly become lower and are expected to stabilize at 3.3% from 2030 onwards.

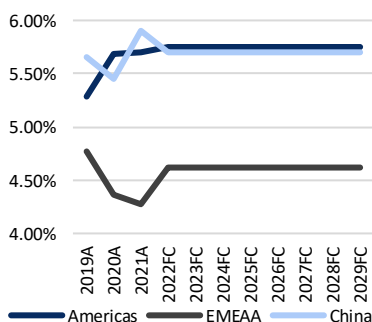


Figure 26. IHG fees

Source: Analysts.

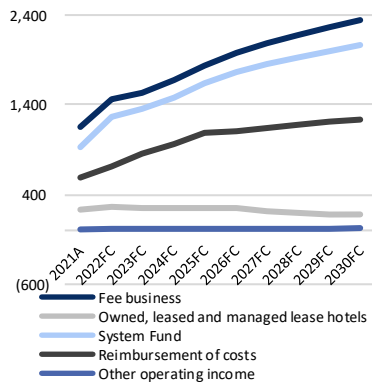


Figure 27. Revenue forecast

Source: Analysts.

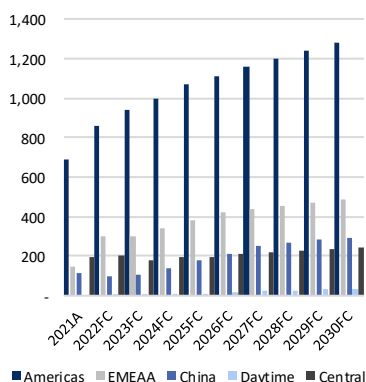


Figure 28. Fee revenue forecast

Source: Analysts.

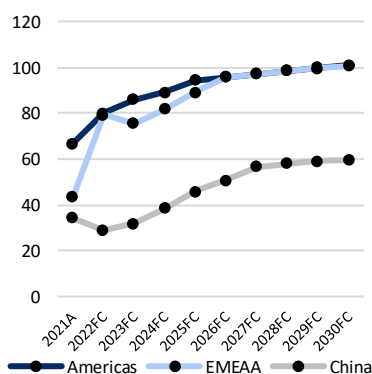


Figure 29. RevPAR forecast

Source: Analysts.

While the fee business recovery in Americas will be completed by 2022 (\$860m), EMEAA and China will take until 2024 (\$342m, \$139m, respectively) to reach its 2019 level again. However, more than 55% of fee revenue originates from Americas, underlining the importance of this geographical region. As no new hotels will be added to the pipeline of owned, leased, and managed leased hotels, its revenue contribution to total room revenue of 15.3% in 2022 will decline further. From 2023 to 2025, we forecasted a small increase in revenue (\$246m to \$253m), attributed to increasing ADR's and occupancies. However, revenue from owned hotels will decrease to \$183m in 2032 as we expect the number of owned hotels to be reduced gradually.

With regards to the geographical distribution of total room revenue in 2025, the Americas generate 32%, EMEAA 14% and China 5%. Hotel revenue in America will reach growth rates of 6.4%, 4.9% and 7.2% in the next three years. As China recovered only partially in 2022, hotel revenue growth rates of above 25% are expected in 2024 and 2025. By 2027, we forecast fee revenue to shift by two percentage points from Americas to China. Within the next years, fee revenue in China is expected to almost triple, reaching \$249m in 2027 (Figure 28).

In contrast to the hotel industry, we were considering the components of RevPAR in chapter five as separate value drivers but as this KPI is industry standard, we also provide our projections of occupancy and ADR combined (Figure 29). Considering fee business RevPAR in 2023, Americas will reach \$85.8, EMEAA \$75.4 and China \$31.8. Recoveries to 2019-levels will be reached in 2023 in Americas, 2025 in EMEAA and 2026 in China. Overall, from 2019 to 2027, fee business RevPAR in will increase by 14.7% in Americas, 9.9% in EMEAA and 17.6% in China.

Further, IHG generates system fund revenue. About two thirds of system fund revenue are attributed to assessments and contributions paid by the hotels. This caption was, on average, 67% in relation to total room revenue from fee business and we expect this stability to be maintained in the future. Similarly, loyalty programme revenue as a percentage of total room revenue is assumed to be kept stable at 21%. Overall, system funds revenue is forecasted to almost double from \$1,359m in 2023 to \$2,205m in 2032.

Another revenue caption is reimbursement of costs (calculated on a per employee basis, assuming a stable ratio of number of managers to employees), that mainly relate to payroll costs, which fell during the pandemic as less business trips were undertaken. We expect that business trips will not reach the pre-pandemic level soon so that a future per employee value was chosen, which corresponds to 85%

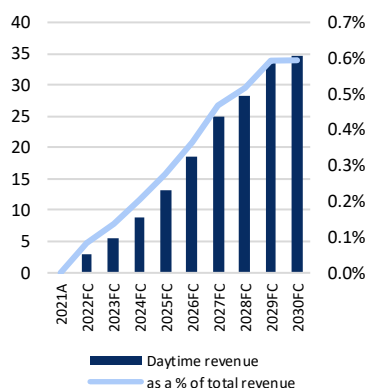


Figure 30. Daytime revenue forecast

Source: Analysts.

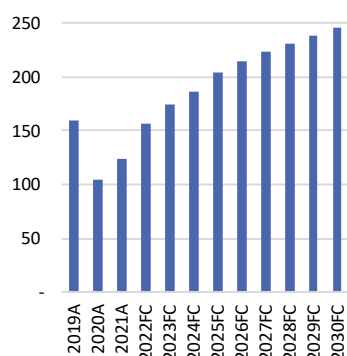


Figure 31. Operating cash forecast

Source: Analysts.

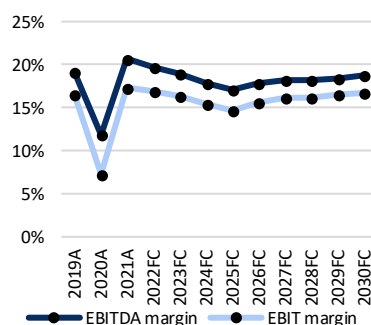


Figure 32. EBITDA and EBIT margin forecast

Source: Analysts.

of the average pre-pandemic level. Average growth rates (equal to employee growth) are 14.6% in the next three years, and they stabilize growing around 3% in 2026 due to increasing number of employees, so that reimbursement cost will equal \$1,114m in 2026.

In the past, IHG started to generate revenue from renting out their rooms during predetermined time slots during the day. As described in chapter 3.2.2, we expect this trend to become increasingly popular and therefore, we created a new revenue caption that summarizes daytime revenue. According to our analysis, ADRs discounts in America average 55%, while EMEAA and China showed discounts of 45%. Our calculation indicates that 6% of IHG hotels currently rent out rooms during the day, which is expected to correspond to 3% of the room count, assuming that if a hotel offers day use, half of the rooms are applicable to this service. Further, current day use occupancies are expected to be 10%, leading to 2,687 hotel rooms being rented out during one day in 2022. Our forecast estimates that this number will increase to 28,423 by 2032 as occupancy rates increase gradually, due to higher popularity of daytime hotel bookings, resulting in an increase in daytime revenue from \$3m in 2022 to \$37m in 2032.

6.1.2 Further Projections

While the forecast of the hotel revenue is mostly explained by the evolution of the highlighted value drivers, several other assumptions had to be made. We linked the employee count to the number of hotel rooms, assuming 0.039 employees per room, below the 2016-2019 average of 0.043, as we anticipate hotels will adjust operations to the current labour shortage, replacing people by automatization and standardisation. This linkage highlights the importance of the room forecast. In 2025, IHG is expected to have recovered its number of employees, reaching 38,578. Staff costs, reimbursed costs, retirement benefit obligations and deferred compensation plan investments and liabilities are projected on a per employee basis as well. The cost drivers remained stable, and we did not find any reason for cost to be significantly decreased in the coming years, which would enhance IHG's performance. Considering Operating cash, it was estimated to be 4.2% of operating revenue, equal to the average proportion of cash at bank and in hand maintained from 2015 to 2020 (Figure 31). Core invested capital is expected to increase in the short-term future, mainly due to the recovery of leased assets and accounts receivables and decreased payables. The value drivers of other captions are mostly historical averages and can be gathered from the income statement and balanced attached in the Appendix.

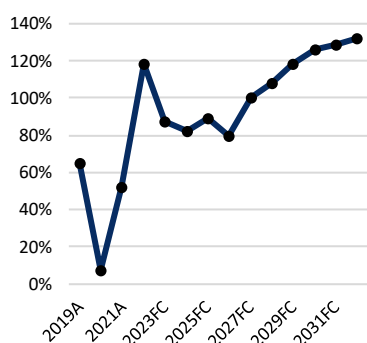


Figure 33. Operating ROIC forecast

Source: Analysts.

The applied assumptions result in reasonable EBIT margins (Figure 32), averaging at 16% in the next decade, the same level achieved in between 2017 and 2019, but stabilizing at the typical 17% from 2030 onwards. Similarly, EBITDA margin stabilizes around 19%, reflecting the steady depreciation and amortization rate of PPE and intangible assets of 5.9%. As previously stated, the system fund is not designed to generate a profit, which is why system fund revenues and expenses are excluded from the EBITDA margin computation for debt monitoring purposes, resulting in an adjusted EBITDA margin. Within the next ten years, adjusted EBITDA is expected to double from \$560m in 2022 to \$1,096m in 2032.

Differently, our projections suggest operating ROIC will increase from 52% in 2021 to 132% in 2032 (Figure 33). Even though IHG has already a much higher ROIC than its peers, as analysed previously, this evolution is consistent with the progressive closing of most of its owned, leased and managed leased hotels until 2029, and in the prioritization of own brand launching and of strategic agreements signings over acquisitions, which imply a continuous reduction of the invested capital in PPE and in right of use assets, and a moderate growth of intangibles. Accordingly, by decomposing ROIC into operating margin and asset turnover, the margin stabilized at 12%, which indicates that the rising value creation is driven by a lower invested capital, that results in an asset turnover of 1071% in 2032.

6.2 Cost of Capital

To derive the share price of IHG, the Discounted Cash Flow Method (DCF) was applied to primarily value the company's operations, using the weighted average cost of capital (WACC). This approach was considered appropriate as the capital structure is not expected to change significantly. Not only the company aims to continue maintaining an investment-grade credit rating, which is monitored based on a target net debt to adjusted EBITDA of 2.5 to 3x (Figure 35), but also it has been preserving a capital structure similar to its peers. Even though IHG had an unusual leverage ratio of 14% in 2021, going forward we expect the ratio to return and stabilize at 18%, which was kept between 2018 and 2020. The company has recently announced a \$500m share buyback, which besides being part of the long trackrecord of returning cash to shareholders, it is a sign of its intentions to rebalance the debt to value ratio.

The estimation of WACC requires further inputs. First, the Capital Asset Pricing Model was used to calculate the cost of equity. As a proxy for the risk-free rate, we chose the 10y US Treasury Yield (3.48%) as of December 13th, 2022. For the estimation of beta, IHG's excess returns were regressed against a proxy for the market excess return, MSCI World (in \$), using monthly returns for the last five

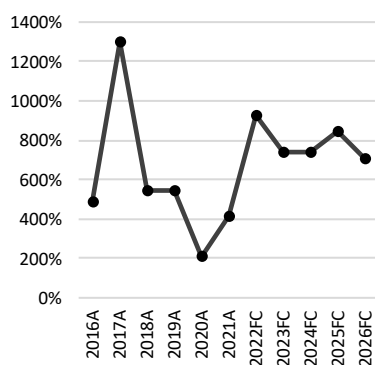


Figure 34. IHG asset turnover

Source: IHG Annual Report, Analysts.

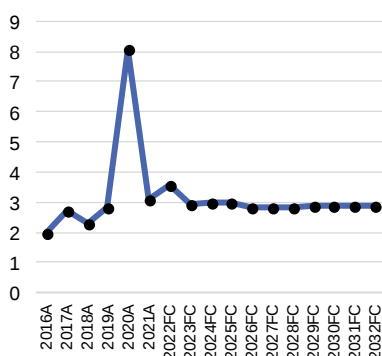


Figure 35. Evolution of the net debt to adjusted EBITDA ratio

Source: IHG, Analysts.

years (from December 2017 until end of November 2022), which led to a levered beta of 1.24 within a confidence interval from 0.97 to 1.51. Given such a wide interval and to improve the precision of our beta estimation, we regressed IHG's peers (Accor, Hilton, Hyatt and Marriott) returns against the MSCI World denominated either in \$ or €, depending on the peers' listing location. Since peers have slightly distinct capital structures, the resultant betas were unlevered and re-levered to IHG's target debt to enterprise ratio (D/EV) to allow comparability.

	IHG	Hilton	Marriott	Hyatt	Accor
Levered β	1.24	1.25	1.61	1.39	1.09
Re	9.7%	9.7%	11.5%	10.4%	9.2%
Target D/EV	18%	19%	18%	22%	18%
D/E	22%	24%	22%	28%	22%
Rf	3.5%	3.5%	3.5%	3.5%	0.8%
Rd	5.8%	5.8%	5.5%	5.7%	4.7%
Ru	9.0%	9.0%	10.4%	9.4%	8.4%
Unlevered β	1.10	1.10	1.39	1.19	1.51
Re-levered Re	9.7%	9.7%	11.5%	10.2%	9.2%
Re-levered β	1.24	1.23	1.60	1.35	1.09

Table 2. Betas of IHG and peers

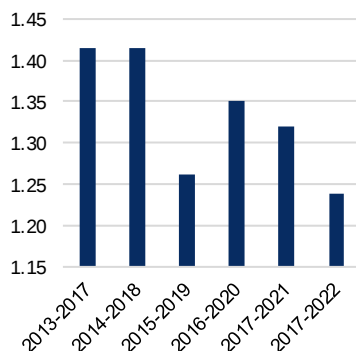


Figure 36. IHG rolling betas

Source: Analysts.

The re-levered betas of peers nearly replicate IHG's confidence interval, amounting to an average of 1.32. Still, when comparing to IHG's beta, we raised the concern that the average beta could be too high. Consequently, the rolling beta of IHG and its evolution from 2013 onwards was analysed (Figure 36). The most recent 5-year period leads to the lowest beta observed (1.24), emphasising the progressive decrease of beta over the years. Nevertheless, we have considered it to be too low, as it reflects an exceptionally less volatile period started in 2021, when the company had a significantly lower leverage ratio (14%). Accordingly, we continued our analysis using a levered beta of 1.3, close to the average rolling betas of IHG from 2015 to 2021 (1.29), which we consider to be the most representative of the future.

With this beta, a nominal risk-free rate of 3.48% and an expected market risk premium of 5%, the cost of equity resulted in 9.98%. Consequently, this is the minimum return investors would demand for an equity investment, which means that in order to raise an additional \$1, the company must pay almost \$0.10, which is \$0.0028 more than Hilton, but \$0.015 less than Marriott. According to different studies^{19,20}, historical excess returns over 10-year government bonds range between 3% and 5.5%. Given the current uncertain economic context, and that

¹⁹ McKinsey and Company Inc. et al. 2015

²⁰ Berk and DeMarzo 2015

risk premiums increase towards the upper range during crisis²¹, we consider 5% to be a reasonable estimate.

To estimate the cost of debt, the yield to maturity (YTM) of IHG's bond maturing in 2028 (BBB rated by S&P) and the corresponding default and recovery rates were considered. A probability of default of 0.25% and a recovery rate of 53.9% were defined according to Moody's estimations²², and given a YTM of 5.91%, the cost of debt was estimated to be 5.79%. Regarding the tax rate, we expect the 19% US statutory tax rate to remain constant in the future. Finally, and as a result of all the stated assumptions, WACC amounts to 9.03%,

6.3 Intrinsic Valuation

The unlevered free cash flows (FCF) of IHG were forecasted until 2032, once the company reaches its steady state.

To compute IHG's core enterprise value (EV) with the DCF Method, the future operational FCF were discounted using WACC. From 2032 onwards, the company's NOPLAT was expected to perpetually grow by 4.5%, a product of the stabilized return on new invested capital (RONIC) and reinvestment rate (RR), of 274% and 1.6%, respectively. As we expect revenue to grow more than rooms in perpetuity (3.1% and 2.4%, respectively), NOPLAT ends up growing at a higher rate than revenues. Still, such growth of IHG seems reasonable when comparing to the estimated nominal GDP growth of 5% until 2060, according to OECD's forecasted real GDP growth rate of 3% and assuming an inflation rate of 2%. As a result, IHG's value of operations amounts to \$11,602m.

	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F
Unlevered Operating FCF	423	504	368	680	641	667	684	691	722	754
Value of Operations	11,602	12,146	12,874	13,357	13,922	14,513	15,139	15,816	16,522	17,260
Book Value of Non-Operating Business	157	209	234	281	294	304	315	325	337	349
Total Enterprise Value	11,758	12,355	13,108	13,638	14,217	14,817	15,454	16,141	16,859	17,609
Net Debt and Other Claims	(2,116)	(2,224)	(2,359)	(2,455)	(2,559)	(2,667)	(2,782)	(2,905)	(3,035)	(3,170)
Equity (@ market)	9,642	10,131	10,749	11,183	11,658	12,150	12,673	13,236	13,825	14,440
Number of shares outstanding	175,169,658						WACC		9.0%	
Share Price (Base Case)	\$55.04						g in perpetuity		4.5%	

Table 3. Discounted Cash Flow valuation

²¹ Graham and Harvey 2009

²² Moody's Investors Service 2018

Subsequently, the book value of non-operations of 2023 was added, which summed to a total EV of \$11,758m. Finally, it was subtracted the net debt and non-controlling interest book values in 2023 to reach an equity value of \$9,642m, which corresponds to a share price of \$55.04 in the base-case scenario.

6.4 Scenario Analysis

The previously described value drivers and results apply to the base case scenario, which we gave a probability of 70% to happen. To account for different economic conditions, we added a best and worst case, which we expect to happen with a chance of 10% and 20%, respectively. We justify the higher probability of the worst-case scenario given the fact that macroeconomic research is indicating an upcoming recession. The two added scenarios differ to the base case in their fundamental value drivers affecting fee revenue, which is the most important source of revenue. The final recommended share price will be a weighted average of the applied scenarios. A detailed comparison of the assumptions of the three scenarios can be found in the model.

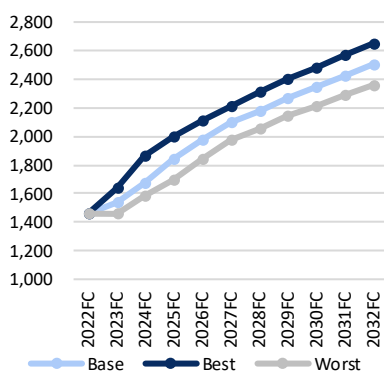


Figure 37. Fee revenue forecast in base, best and worst case

Source: Analysts.

		Base	Best	Worst
Occupancy recovery	Americas	2025	2024	2028
	EMEA	2026	2025	2027
	China	2027	2026	2028
US Inflation 2023		3.5%	2.2%	4.5%
ADR growth 2023	Americas	2.5%	3%	1.5%
	EMEA	-7%	2%	-10%
	China	5%	10%	1%
Construction times Normalized to 3yr (2yr in China)	Americas	2025	2024	2027
	EMEA	2026	2025	2028
	China	2025	2025	2028

Table 4. Scenario overview assumptions (fee business)

Scenario	Probability	Share Price
Base	70%	\$ 55.04
Best	10%	\$ 61.36
Worst	20%	\$ 48.46
		\$ 54.36

Figure 38. Weighted DCF share price

Source: Analysts.

6.4.1 Best Case

In the best-case scenario, recovery from the Covid-19 pandemic is completed earlier and the recession will not affect IHG as much as assumed in the base case. On average, pre-pandemic occupancy levels will be reached one year earlier. ADRs are higher in the short term caused by increased demand but converge to steady state growth rates from the base case scenario. Construction times increase to a maximum of four years and the percentage of rooms in the pipeline increases, expecting growth especially in EMEA and China.

Accordingly, revenue from fee business is \$102m higher in 2023. Not only Americas surpasses its 2019 revenue level in 2022, but also EMEAA and China reach \$345m and \$135m by the end of 2023. Thus, total fee revenue grows 11-13% in the next two years, compared to 4% and 8% in the base case.

Finally, the share price of the best-case scenario is \$61.36, which is 11.5% above the base price.

▪ 6.4.2 Worst Case

The worst-case scenario assumes EMMEA to be most affected by the recession. Occupancy will fall below 66% until 2025 (2012 level), expecting that inflation decreases disposable income, affecting IHG's economy segment, which generates most revenue. A later lift of travel restrictions and a more aggressive competition were assumed to affect the recovery in China. The recession decreases GDP growth, affecting ADRs negatively. Disruptions in the supply chain will remain in the short term, increasing hotel construction times to five years in the short-term.

Consequently, total fee revenue changes by 0% in 2023 and grows only at 7-8% in the following years. Fee revenue recovery in EMEAA and China is expected in 2026 and 2025, respectively. Total fee revenue of \$2,056m is reached in 2028, about one and a half years later than in the base case.

The worst-case scenario share price of \$48.46 is 12.0% below the base case's price.

6.5 Sensitivity Analysis

Accounting for uncertainty in our estimations of the cost of capital, we judged appropriate to observe how WACC would change when being subjected to different inputs. In particular, the sensitivity of the cost of equity in dependence of the MRP and the beta was tested. The beta values were chosen within the confidence interval (0.94 to 1.51). For the market risk premium, we considered the same range of historical excess returns analysed in the estimation of cost of equity. Furthermore, the WACC sensitivity to the cost of equity between 8.35% and 11.01% (derived by different levels of beta) and the cost of debt between 5.3% and 6.5% was performed. Again, to test how IHG's value responds to changes in key inputs, a sensitivity analysis of the share price has been performed to different WACC and perpetual growth rate (g) (Table 5). To determine the values of g , another sensitivity analysis was done on RONIC and RR, similarly as for WACC. Finally, the expected range for WACC is 8.10% to 9.67% and g is anticipated to be between 3.6% and 5.2%. The respective ranges result in a share price between \$41.5 and \$87.3 in the base case scenario. The upper end is above IHG's highest

share price of \$74.12, reached on February 22, 2021. Hypothetically, WACC would need to decrease below 8.10%, and simultaneously g would need to be above 4.7% for the share price to become close to its 2021 level, which we evaluate as unlikely to happen. Therefore, the sensitivity analysis shows that even if market conditions change favourably, IHG is not expected to reach its all-time peak until the end of 2023.

		WACC						
Growth Rate	\$55.0	8.1%	8.4%	8.7%	9.0%	9.2%	9.5%	9.7%
	3.6%	60.3	55.6	51.5	47.8	45.6	43.5	41.5
	3.9%	63.7	58.5	54.0	50.0	47.5	45.3	43.2
	4.2%	67.6	61.8	56.7	52.4	49.7	47.2	44.9
	4.5%	72.1	65.5	59.9	55.0	52.1	49.4	46.9
	4.7%	76.4	69.1	62.9	57.6	54.4	51.4	48.8
	4.9%	81.4	73.2	66.3	60.4	56.9	53.7	50.8
	5.2%	87.3	77.9	70.1	63.6	59.7	56.2	53.1

Table 5. Share Price Sensitivity to WACC and g (Base Case)

		Reinvestment Rate						
RONIC	4.48%	1.1%	1.3%	1%	1.6%	1.8%	2.0%	2.3%
	218%	2.3%	2.9%	3.2%	3.6%	3.9%	4.3%	5.1%
	232%	2.4%	3.0%	3.4%	3.8%	4.2%	4.6%	5.4%
	246%	2.6%	3.2%	3.6%	4.0%	4.4%	4.8%	5.8%
	273%	2.9%	3.6%	4.0%	4.5%	4.9%	5.4%	6.4%
	287%	3.0%	3.8%	4.2%	4.7%	5.2%	5.6%	6.7%
	300%	3.2%	3.9%	4.4%	4.9%	5.4%	5.9%	7.0%
	314%	3.3%	4.1%	4.6%	5.2%	5.7%	6.2%	7.4%

Table 6. Growth Rate Sensitivity to RR and Ronic (Base Case)

Fee change, in pp	Share Price
-0.5%	\$45.17
-0.25%	\$50.06
0%	\$55.04
0.25%	\$60.09
0.5%	\$65.17

Figure 39. Share price sensitivity to management fee

Source: Analysts.

Applying the mentioned ranges of WACC and g to the best-case scenario, a share price between \$46.7 and \$95.6 can be expected. Similarly, the worst-case scenario would result in \$36.3 - \$77.9 per share. However, as the two additional scenarios were only given a combined weight of 30%, the sensitivity analysis adds most value for the base scenario.

Additionally, we found relevant to perform a sensitivity analysis on the management fees. As mentioned previously, we assumed the management fees of each region to be an average of the estimated percentages between 2016 and 2021, and to remain stable during the whole forecasting period. Even though the percentages did not fluctuate much in the past (between 0.5 pp in China and 1 pp in the Americas), we are concerned that it is a very strong assumption. Therefore, we tested how the share price would change if the management fees increased or decreased by 0.5% in all regions, simultaneously, in the base case scenario. This range indirectly implies that the management fees will never become higher or lower than in the past, except in Greater China. In result, the share price would range between \$45.17 and \$65.17. As we do not expect IHG to either increase or decrease the management fees at such a high magnitude, and maintain it

constant, we conclude that it was reasonable, yet conservative, to consider the past averages in the forecast.

6.6 Relative Valuation

2021	EV/EBITDA	EV/EBIT	P/E	EV/Rooms
IHG	23	27	45	0.016
HLT	46	55	107	0.052
MAR	36	41	49	0.048
HLT	244	-57	-47	0.048
AC	496	-46	573	0.013

2019	EV/EBITDA	EV/EBIT	P/E	EV/Rooms
IHG	17	20	32	0.017
HLT	23	28	35	0.045
MAR	30	35	39	0.049
H	18	48	12	0.039
AC	15	24	24	0.016

Figure 40. IHG and peers' multiples in 2019 and 2021

Source: Analysts; Annual Reports.

Even though the DCF analysis has the advantage of being extremely flexible to our assumptions, the final value is fully dependent on their accuracy. For this reason, and to test the reliability of our forecasts, relative valuation was used as a complementary approach to value IHG. The companies considered for this purpose were the same as for the beta computations (Marriott, Hilton, Hyatt and Accor), and they were compared based on the following multiples, considered the most appropriate: Prices to Earnings (P/E), EV to EBIT (EV/EBIT), EV to EBITDA (EV/EBITDA), and EV to Number of rooms. Considering that 2021 was not a typical business year, we have also computed the multiples of 2019, the year before the pandemic (Figure 40).

In 2021, the EBIT, EBITDA and earnings of all the analysed companies decreased substantially, but the Equity and Enterprise Value did not decrease at the same magnitude, or even increased, which resulted in excessively high multiples, when comparing to 2019's. In particular, EV to Number of rooms was the multiple that better resisted from 2019 to 2021 as it highlights the differences in companies' main price segments. In sum, considering 2019's median EV/EBITDA multiple, IHG's relative valuation imply a share price of \$67, EV/EBIT multiple of \$94 and P/E multiple of \$69, which are not in line with the DCF model intrinsic price, as expected. Once 2019's multiples do not reflect the impact of Covid-19 on the companies' cash-flows, it would be relevant to analyse forward-looking multiples instead (Figure 41). The forward-multiple valuations do better reflect the DCF share price.

	Forward Multiples		
	EV/EBITDA	EV/EBIT	P/E
IHG	13	14	20
HLT	16	18	25
MAR	14	17	21
AC	12	18	24
HLT	12	27	39
1st Qt.	12	16	22
Median	13	17	24
3rd Qt.	14	18	26
Average	13	17	27

	Share Price		
1st Qt.	\$41.5	\$49.1	\$44.3
Median	\$42.5	\$53.7	\$48.0
3rd Qt.	\$50.5	\$55.2	\$51.2
Average	\$46.3	\$50.7	\$47.4

Figure 41. IHG and peers' forward multiples and IHG's resulting share price

Source: Refinitiv; Analysts.

Especially, EV to EBITDA has proved to be an appropriate multiple for the hotel industry as the values vary only slightly between companies, even though it does not validate the assumptions and result of the DCF valuation. On average, an EV/EBITDA multiple based on the chosen peer group would suggest a share price of \$46.3, within a range of \$41.5 and \$50.5 (DCF: \$50.04, base case). We are concerned that, and as mentioned in previous chapters, the peers differ mainly in the served price segments and room count. Considering that the DCF method relies on many assumptions, and to simultaneously to account for the shortcoming of the relative valuation method, we decided to give the share price obtained by EV/EBITDA multiple a weight of 30% in the final recommended share price.

7. Recommendation

Having analysed IHG from various perspectives, we recommend selling the stock. According to our DCF analysis, we expect IHG's share price to be \$54.36 by the end of 2023. As a DCF is more forward looking and a valuation with multiples may reflect more accurately the current state, we decided to give the DCF price a weight of 70% and the EV/EBITDA a weight of 30%, resulting in \$51.94 per share. If an IHG share was bought today (as of 13th December 2022), the upside potential for a one-year time horizon would be -12.8%.

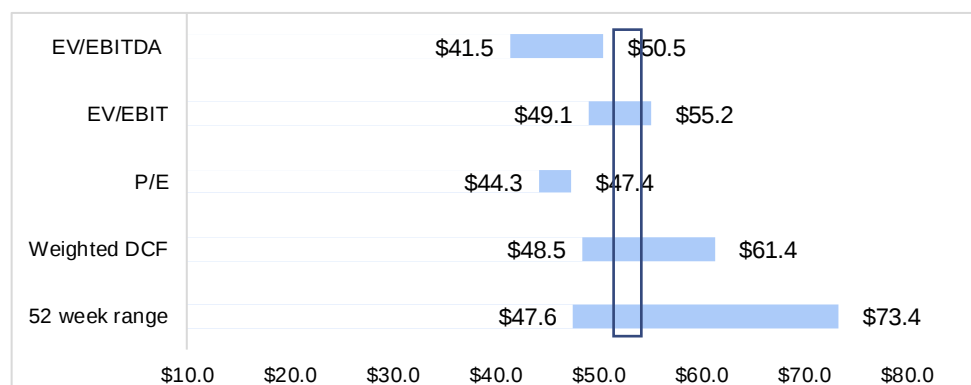


Table 7. Football field share price

Price Recommendation	\$ 51.94
Price as of 13th December	\$ 62.41
Dividend per share	\$ 2.5
Expected return for shareholder incl. dividend	-12.8%
Expected return for shareholder excl. dividend	-16.8%

Table 8. Price recommendation and expected return

Our analysis implies that IHG performs better than its peers in several aspects but given the DCF share price, we conclude that Intercontinental Hotels Group is currently overvalued. Investors were too optimistic about the pandemic recovery, which is still not completed yet. Additionally, we did not find a unique, sustainable industry trend, that is pursued by IHG only, which could have indicated growth opportunities that competitors would not have.

We explored the evolution of daytime revenue, which represents only 0.20% of total fee revenue in 2022, but it is forecasted to increase to 1.50% in 2029. We expect home office and flexible working conditions to remain natural. Moreover, this trend will become increasingly popular, attracting further business and leisure travelers. However, IHG's competitors adapt to this trend as well, which implies that no sustainable competitive advantage is achieved by adapting to this trend.

Despite the Covid-19 pandemic, IHG is increasing its rooms in the pipeline, suggesting further growth. Within the next ten years, IHG is expected to have on

average, 300,000 rooms in the pipeline. Almost 40% of the pipeline room count is attributed to franchised rooms in the Americas and 34% are developed in China. The total number of rooms available is expected to grow from 875,706 in 2021 to over a billion in 2026 at an average growth rate of 3%. Nevertheless, key competitors show significant room growth as well, increasing their number of rooms in the pipeline.

Although we see substantial room growth and identified an additional source of revenue, current macroeconomic conditions do not allow IHG to reach its pre-pandemic performance in the short-term. In 2020 it was forecasted that the hotel industry would have recovered by now, not anticipating a war in the Ukraine and inflation levels of 9%. Due to an identified current overvaluation, we issue a “SELL” recommendation.

Appendix

Financial Statements

Base Case, in \$m	2017A	2018A	2019A	2020A	2021A	2022FC	2023FC	2024FC	2025FC	2026FC	2027FC	2028FC	2029FC	2030FC	2031FC	2032FC
IHG Reformulated Balance Sheet																
CORE BUSINESS																
Goodwill and other intangible assets	967	1,143	1,376	1,293	1,195	1,308	1,338	1,406	1,469	1,530	1,592	1,638	1,687	1,741	1,796	1,853
Goodwill and Brands					780	792	803	828	839	865	900	926	954	984	1,015	1,048
as % of fee and owned & lease revenues	56.1%	46%	45%	43%	40%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%
Software, Management	537	590	598	508	415	516	535	578	629	665	692	712	734	757	781	806
as % of fee and owned & lease revenues	31.0%	30.0%	28.7%	51.2%	29.9%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Property, plant and equipment	250	273	309	201	137	174	163	155	151	146	141	136	135	138	141	144
Americas	157	155	163	127	72	97	84	72	62	53	46	39	35	35	35	35
per owned and leased number of hotel rooms	0.09	0.07	0.07	0.07	0.05	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
EMEAA	11	34	56	11	12	11	11	10	9	8	7	7	6	6	6	6
per owned and leased number of hotel rooms	0.021	0.009	0.014	0.003	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Central	82	84	90	63	53	66	68	73	80	85	88	90	93	96	99	102
as % of fee and owned & lease revenues	5%	4%	4%	6%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Right-of-use assets	486	513	490	303	274	296	294	261	232	207	184	164	150	150	150	150
per owned and leased number of hotel rooms	0.21	0.09	0.08	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Trade and other receivables	549	610	666	514	574	693	694	686	703	686	716	738	762	785	809	834
outstanding receivable days	48	51	52	78	72	68	63	57	53	49	49	49	49	49	49	49
Contract costs	58	60	72	75	77	73	77	67	74	69	73	76	79	82	85	88
as % of fee business revenue	4.2%	4.0%	4.8%	9.1%	6.7%	5%	5%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Contract assets	258	290	334	336	346	335	308	302	332	356	377	393	408	422	436	451
as % of fee business revenue	18.7%	19.5%	22.1%	40.8%	30.0%	23%	20%	18%	18%	18%	18%	18%	18%	18%	18%	18%
Tax receivable	117	58	44	33	2	8	13	16	20	22	24	25	26	28	29	30
as % of profit before taxes	17.9%	12.0%	8.1%	-11.8%	0.6%	2%	3%	3%	4%	4%	4%	4%	4%	4%	4%	4%
Inventories	3	5	6	5	4	4	3	3	3	3	2	2	2	2	2	2
as % of owned & lease revenues	0.9%	1.1%	1.0%	3.0%	1.7%	1.7%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
Cash and cash equivalents	164	202	160	104	124	156	173	187	203	215	224	231	238	246	253	261
as % of total revenue	3.9%	4.6%	3.4%	4.3%	4.2%	4.2%	4.3%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%
TOTAL CORE ASSETS	2,852	3,154	3,457	2,864	2,733	3,048	3,062	3,083	3,187	3,233	3,333	3,404	3,489	3,593	3,701	3,813
Trade and other payables	(602)	(741)	(684)	(560)	(668)	(796)	(814)	(789)	(790)	(844)	(890)	(925)	(960)	(992)	(1,024)	(1,058)
outstanding payable days	223	247	217	316	373	300	286	254	230	230	230	230	230	230	230	230
Deferred Revenue	(1,357)	(1,506)	(1,564)	(1,569)	(1,613)	(1,675)	(1,608)	(1,670)	(1,623)	(1,713)	(1,786)	(1,843)	(1,902)	(1,960)	(2,021)	(2,083)
as % of total revenue	-32.6%	-34.6%	-33.6%	-65.1%	-55.3%	-45%	-40%	-38%	-34%	-34%	-34%	-34%	-34%	-34%	-34%	-34%
Tax payable	(89)	(50)	(50)	(30)	(52)	(37)	(48)	(49)	(52)	(59)	(64)	(67)	(70)	(73)	(76)	(80)
as % of profit before taxes	-13.6%	-10.4%	-9.2%	10.7%	-14.4%	-9%	-9%	-9%	-9%	-9%	-9%	-9%	-9%	-9%	-9%	-9%
TOTAL CORE LIABILITIES	(2,048)	(2,297)	(2,298)	(2,159)	(2,333)	(2,508)	(2,469)	(2,508)	(2,465)	(2,616)	(2,740)	(2,835)	(2,932)	(3,025)	(3,121)	(3,221)
TOTAL CORE BUSINESS	804	857	1,159	705	400	541	593	575	721	617	592	569	557	568	580	592
NON-CORE BUSINESS																
Investment in associates and joint ventures	141	104	110	81	77	98	106	116	128	135	141	145	150	154	159	164
as % of total revenue	3.4%	2.4%	2.4%	3.4%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Retirement benefit assets	3	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Other financial assets	244	261	288	169	175	223	241	264	290	306	320	330	340	351	362	373
as % of total revenue	5.9%	6.0%	6.2%	7.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Derivative financial instruments	-	8	1	5	-	-	-	-	-	-	-	-	-	-	-	-
Deferred compensation plan investments	193	218	236	256	210	238	268	300	309	318	326	335	343	351	359	359
value per employee	-	0.005	0.006	0.008	0.011	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
Deferred tax assets	78	63	66	113	147	112	100	110	97	102	107	110	114	117	121	124
as % of total revenue	2%	1%	1%	5%	5%	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%
Assets classified as held for sale	-	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL NON-CORE ASSETS	466	629	702	604	657	643	686	757	815	853	885	911	938	965	992	1,020
Derivative financial instruments	-	-	(20)	(18)	(62)	(30)	(21)	(14)	-	-	-	-	-	-	-	-
Provisions	(8)	(27)	(62)	(60)	(90)	(80)	(65)	(40)	(30)	-	-	-	-	-	-	-
Retirement benefit obligations	(104)	(91)	(96)	(103)	(92)	(74)	(84)	(95)	(106)	(109)	(113)	(116)	(119)	(121)	(124)	(127)
value per employee	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Deferred compensation plan liabilities	-	(193)	(218)	(236)	(256)	(210)	(238)	(268)	(300)	(309)	(318)	(326)	(335)	(343)	(351)	(359)
value per employee	-	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Deferred tax liabilities	(95)	(124)	(118)	(95)	(93)	(112)	(121)	(132)	(145)	(153)	(160)	(165)	(170)	(176)	(181)	(186)
as % of total revenue	-2.3%	-2.8%	-2.5%	-3.9%	-3.2%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Liabilities classified as held for sale	-	-	(22)	-	-	-	-	-	-	-	-	-	-	-	1,000	2,000
TOTAL NON-CORE LIABILITIES	(207)	(435)	(536)	(512)	(593)	(506)	(529)	(549)	(581)	(572)	(591)	(607)	(623)	(639)	(655)	(671)
TOTAL NON-CORE BUSINESS	259	194	166	92	64	137	157	209	234	281	294	304	315	325	337	349
FINANCING ACTIVITIES																
Lease liabilities	(633)	(670)	(660)	(450)	(419)	(352)	(437)	(389)	(346)	(308)	(274)	(244)	(223)	(223)	(223)	(223)
per owned and leased number of hotel rooms	(0.27)	(0.11)	(0.10)	(0.08)	(0.09)	(0.08)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)
Loans and other borrowings - net of excess	(1,784)	(1,512)	(2,130)	(2,196)	(1,519)	(1,650)	(1,672)	(1,827)	(2,006)	(2,139)	(2,277)	(2,415)	(2,551)	(2,674)	(2,804)	(2,939)
Non-controlling interest	(7)	(8)	(8)	(8)	(7)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
NET FINANCIAL OBLIGATIONS	(2,424)	(2,190)	(2,798)	(2,654)	(1,945)	(2,010)	(2,116)	(2,224)	(2,359)	(2,455)	(2,559)	(2,667)	(2,782)	(2,905)	(3,035)	(3,170)
as % of Enterprise Value	17%	18%	18%	18%	14%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%
EQUITY																
IHG shareholders' equity	(1,361)	(1,139)	(1,473)	(1,857)	(1,481)	(1,332)	(1,367)	(1,440)	(1,404)	(1,557)	(1,672)	(1,794)	(1,910)	(2,012)	(2,118)	(2,228)
TOTAL EQUITY	(1,361)	(1,139)	(1,473)	(1,857)	(1,481)	(1,332)	(1,367)	(1,440)	(1,404)	(1,557)	(1,672)	(1,794)	(1,910)	(2,012)	(2,118)	(2,228)

Base Case, in \$m	2017A	2018A	2019A	2020A	2021A	2022FC	2023FC	2024FC	2025FC	2026FC	2027FC	2028FC	2029FC	2030FC	2031FC	2032FC
IHG Reformulated Income Statement																
CORE OPERATIONS																
Revenue from fee business	1,379	1,486	1,510	823	1,153	1,459	1,538	1,677	1,845	1,976	2,092	2,181	2,268	2,344	2,422	2,503
Americas	811	853	853	457	691	860	939	994	1,073	1,114	1,156	1,198	1,242	1,281	1,321	1,362
EMEA	294	320	337	107	149	298	301	342	383	423	441	458	472	487	502	517
China	117	143	135	77	116	97	110	139	179	211	249	266	281	294	308	322
Daytime	-	-	-	-	-	3	6	9	13	19	25	28	34	35	36	37
Central	157	170	185	182	197	201	182	192	196	210	221	231	239	247	256	264
Revenue from owned, leased and managed	351	447	573	169	237	263	246	249	253	241	215	192	177	179	181	183
Americas	188	198	187	55	83	125	109	106	106	92	80	70	63	64	65	65
EMEA	163	249	386	114	154	138	137	144	147	148	135	123	114	115	116	117
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Central	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Revenues from System Fund	1,242	1,233	1,373	765	928	1,265	1,359	1,485	1,644	1,757	1,853	1,927	2,000	2,066	2,134	2,205
Assessment fees and contributions received from hotels	934	979	1,036	490	727	956	1,030	1,128	1,253	1,342	1,421	1,482	1,542	1,593	1,647	1,702
Loyalty programme revenues, net of the cost of point redemptions	308	254	337	275	201	309	329	356	391	414	432	444	458	473	488	503
Reimbursement of costs	1,103	1,171	1,171	637	589	718	858	965	1,080	1,114	1,147	1,176	1,206	1,235	1,265	1,296
value per employee	0.032	0.033	0.032	0.022	0.026	0.027	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028
Other operating income	84	14	21	16	11	17	18	20	22	23	24	25	26	26	27	28
as % of total revenue	2.0%	0.3%	0.5%	0.7%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Total operating revenue	4,159	4,351	4,648	2,410	2,918	3,722	4,019	4,396	4,844	5,110	5,331	5,501	5,677	5,850	6,029	6,215
Cost of sales and administrative expenses	(264)	(378)	(432)	(121)	(217)	(275)	(285)	(308)	(336)	(355)	(369)	(380)	(391)	(404)	(416)	(430)
as % of fee and owned & lease revenues	-15.3%	-19.6%	-20.7%	-12.2%	-15.6%	-16.0%	-16.0%	-16.0%	-16.0%	-16.0%	-16.0%	-16.0%	-16.0%	-16.0%	-16.0%	-16.0%
System Fund expenses, except Staff	(937)	(1,032)	(1,109)	(625)	(635)	(924)	(992)	(1,084)	(1,200)	(1,282)	(1,353)	(1,406)	(1,460)	(1,508)	(1,558)	(1,610)
as % of system fund revenues	-75.4%	-83.7%	-80.8%	-81.7%	-68.4%	-73.0%	-73.0%	-73.0%	-73.0%	-73.0%	-73.0%	-73.0%	-73.0%	-73.0%	-73.0%	-73.0%
Reimbursed costs	(47)	(61)	(39)	(21)	(18)	(45)	(46)	(50)	(54)	(58)	(60)	(62)	(63)	(65)	(68)	(70)
as % of fee and owned & lease revenues	-2.7%	-3.2%	-1.9%	-2.1%	-1.3%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%
Staff costs	(2,040)	(2,165)	(2,180)	(1,358)	(1,444)	(1,746)	(1,931)	(2,172)	(2,430)	(2,507)	(2,580)	(2,647)	(2,713)	(2,779)	(2,846)	(2,915)
value per employee	(0.06)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
EBITDA	871	715	888	285	604	732	764	782	823	909	969	1,006	1,049	1,094	1,141	1,190
Depreciation and amortisation	(112)	(115)	(116)	(110)	(98)	(104)	(105)	(107)	(108)	(110)	(112)	(113)	(115)	(119)	(122)	(126)
as % PPE and intangible assets	-6.6%	-6.0%	-5.3%	-6.1%	-6.1%	-5.9%	-5.9%	-5.9%	-5.9%	-5.9%	-5.9%	-5.9%	-5.9%	-5.9%	-5.9%	-5.9%
Total operating result before taxes (EBT)	759	600	772	175	506	628	659	675	715	799	856	893	934	976	1,019	1,065
Statutory Taxes	(146)	(114)	(147)	(33)	(96)	(119)	(125)	(128)	(136)	(152)	(163)	(170)	(177)	(185)	(194)	(202)
Statutory Tax Rate	-19%	-19%	-19%	-19%	-19%	-19%	-19%	-19%	-19%	-19%	-19%	-19%	-19%	-19%	-19%	-19%
Tax Adjustments	(91)	(43)	(64)	(55)	(44)	(36)	(59)	(61)	(64)	(72)	(77)	(80)	(84)	(88)	(92)	(96)
as % of operating EBT	-12%	-7%	-8%	-31%	-9%	-9%	-9%	-9%	-9%	-9%	-9%	-9%	-9%	-9%	-9%	-9%
Core result after taxes	521	443	561	87	365	472	475	486	515	575	617	643	672	702	734	767
NON-CORE OPERATIONS																
Share of losses of associates and joint	3	(1)	(3)	(14)	(8)	(3)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)
as % of investments in JV	2.1%	-1.0%	-2.7%	-17.3%	-10.4%	-2.7%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
Other impairment charges	(18)	-	(131)	(226)	(4)	(131)	-	-	-	-	-	-	-	-	-	-
Financial income	4	5	6	4	8	5	4	5	5	6	6	6	6	7	7	7
as % of financial assets and derivatives	1.6%	1.9%	2.1%	2.3%	4.6%	2.1%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
Fair value gains on contingent purchase	-	(4)	27	13	6	27	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Impairment loss on financial assets	-	(17)	(8)	(88)	-	(8)	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(17)
Capitalised interest	6	5	5	1	-	5	5	5	5	5	5	5	5	5	5	5
Unwind of discount on deferred purchase	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Interest rate swaps fair value transferred from	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other charges	(4)	(5)	(6)	(5)	(8)	(6)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Non-Core result before taxes	(9)	(18)	(111)	(316)	(7)	(112)	(19)	(18)	(18)	(18)	(17)	(17)	(17)	(17)	(17)	(17)
Statutory Taxes	2	3	21	60	1	21	4	3	3	3	3	3	3	3	3	3
Tax Adjustments	99	2	11	21	17	10	10	10	10	10	10	10	10	10	10	10
Other comprehensive income	(137)	34	(37)	(150)	69	30	30	30	30	30	30	30	30	30	30	30
Non-Core result after taxes	(45)	22	(116)	(385)	80	(51)	25	25	26	26	26	26	26	26	26	27
FINANCIAL																
Interest expense on external borrowings	(58)	(61)	(78)	(102)	(109)	(96)	(97)	(106)	(116)	(124)	(132)	(140)	(148)	(155)	(162)	(170)
as % of loans and other borrowings, net of cash	3%	4%	4%	5%	7%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Interest expense on lease liabilities	(39)	(39)	(41)	(37)	(29)	(20)	(25)	(23)	(20)	(18)	(16)	(14)	(13)	(13)	(13)	(13)
as % of lease liabilities	6%	6%	6%	8%	7%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Financial result before taxes	(97)	(100)	(119)	(139)	(138)	(116)	(122)	(128)	(136)	(142)	(148)	(154)	(161)	(168)	(175)	(183)
Statutory Taxes	19	19	23	26	26	22	23	24	26	27	28	29	31	32	33	35
Financial result after taxes	(78)	(81)	(96)	(113)	(112)	(94)	(99)	(104)	(110)	(115)	(120)	(125)	(130)	(136)	(142)	(148)
Total comprehensive income	398	384	349	(410)	334	328	401	407	430	486	523	544	568	593	618	645

Base Case, in \$m	2017A	2018A	2019A	2020A	2021A	2022FC	2023FC	2024FC	2025FC	2026FC	2027FC	2028FC	2029FC	2030FC	2031FC	2032FC
IHG Cash Flow Map																
EBIT	759	600	772	175	506	628	659	675	715	799	856	893	934	976	1,019	1,065
Notional Taxes	(146)	(114)	(147)	(33)	(96)	(119)	(125)	(128)	(136)	(152)	(163)	(170)	(177)	(185)	(194)	(202)
Tax Adjustments	(91)	(43)	(64)	(55)	(44)	(36)	(59)	(61)	(64)	(72)	(77)	(80)	(84)	(88)	(92)	(96)
NOPLAT	521	443	561	87	365	472	475	486	515	575	617	643	672	702	734	767
Depreciation and Amortisation	112	115	116	110	98	104	105	107	108	110	112	113	115	119	122	126
Gross Free Cash Flow	633	558	677	197	463	576	580	593	623	685	729	756	788	821	856	892
Net Capital Expenditures	57	(138)	(152)	(2)	(34)	(141)	(94)	(99)	(104)	(105)	(107)	(109)	(114)	(122)	(125)	(129)
Change in goodwill and acquired intangibles	(109)	(176)	(233)	83	98	(113)	(30)	(68)	(63)	(61)	(62)	(46)	(50)	(53)	(55)	(57)
Change in Right of use assets	(486)	(27)	23	187	29	(22)	2	33	29	26	23	20	14			
Change in Net Working Capital	(58)	38	(72)	85	29	(24)	2	(31)	(32)	60	7	5	4	1	1	1
Change in all other operating items	(0)	135	16	(9)	85	55	(37)	76	(85)	75	52	40	42	44	45	47
Operating Free Cash Flow	37	390	259	541	671	332	423	504	368	680	641	667	684	691	722	754
Non-Operating income after tax	(45)	22	(116)	(385)	80	(51)	25	25	26	26	26	26	26	26	26	27
Change in Investment in associates and joint ventures	(30)	37	(6)	29	4	(21)	(8)	(10)	(12)	(7)	(6)	(4)	(5)	(5)	(5)	(5)
Change in Retirement benefits assets, net of obligations	5	(10)	5	7	(13)	(16)	10	11	11	3	3	3	3	3	3	3
Change in other financial assets	24	(17)	(27)	119	(6)	(48)	(18)	(23)	(27)	(16)	(13)	(10)	(11)	(10)	(11)	(11)
Change in derivative financial instruments, net of liabilities	(3)	(8)	27	(6)	49	(32)	(9)	(7)	(14)	-	-	-	-	-	-	-
Change in deferred compensation plan investments, net of liabilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Change in deferred tax assets, net of liabilities	(84)	44	(9)	(70)	(36)	54	20	2	26	3	2	2	2	2	2	2
Change in assets held for sale, net of liabilities	-	-	3	(3)	-	-	-	-	-	-	-	-	-	-	(1)	(1)
Change in provisions	-	19	35	(2)	30	(10)	(15)	(25)	(10)	(30)	-	-	-	-	-	-
Non-Operating Free Cash Flow	(133)	87	(88)	(311)	108	(124)	5	(27)	1	(21)	12	16	16	16	15	14
Total Free Cash Flow to the Firm	(96)	477	171	231	779	208	428	477	369	658	654	683	700	707	737	769
Interest Expense	(97)	(100)	(119)	(139)	(138)	(116)	(122)	(128)	(136)	(142)	(148)	(154)	(161)	(168)	(175)	(183)
Tax Shields	19	19	23	26	26	22	23	24	26	27	28	29	31	32	33	35
Change in Financial Debt	779	(234)	608	(144)	(709)	65	107	107	136	95	104	108	115	124	129	135
Transactions with Shareholders	(605)	(162)	(683)	26	42	(179)	(436)	(480)	(394)	(639)	(638)	(666)	(684)	(694)	(724)	(755)
Total CF from Investors	96	(477)	(171)	(231)	(779)	(208)	(428)	(477)	(369)	(658)	(654)	(683)	(700)	(707)	(737)	(769)

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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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