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I do agree to allow my dissertation to be seen by future students.

Abstract

This thesis sought to determine the equity value of the Windsor, England-based InterContinental Hotels Group, a British multinational hospitality company. Both intrinsic and extrinsic value indicators, such as the discounted cash flow model and relative valuation comparables, were used in the valuation process. Because IHG reported its financials in dollars and the firm is listed on both the NYSE and LSE, the NYSE's financial numbers are taken into account while creating this report.

The DCF indicated that IHG's suggested share price was $56.91, its enterprise value was $12,155 million, and its equity value was $10,301 million. IHG is trading 2.45% over its intrinsic value at the current share price.

Sensitivity analysis was done to confirm the anticipated hypothesis. The sensitivity analysis showed how growth and WACC fluctuations affected IHG's enterprise value and equity per share value.

A relative valuation based on the P/E, EV/EBIT, and EV/EBITDA multiples was then used to validate the DCF results, demonstrating that Richemont is expensive in relation to its competitors.

Based on the findings of both the DCF method to valuation and the relative valuation technique, the research concluded with an investment recommendation of SELL.

DCF	Discounted Cash Flow
CAGR	Compound Annual Growth Rate
Capex	Capital Expenditures
IHG	InterContinental Hotels Group
CAPM	Capital Asset Pricing Model
COGS	Cost of Goods Sold
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortisation
ERP	Equity Risk Premium
EV	Enterprise Value
FFCF	Forecasted Free Cash Flow
FCF	Free Cash Flow
FY	Financial Year
$	Dollar
WACC	Working Average Cost of Capital

Contents

1.0 Introduction

This chapter aims to present an overview of the firm being valued i.e., InterContinental Hotels Group, the industry in which it works, and the report's objective.

1.1 Direction of the Valuation

This thesis examines the InterContinental Hotels Group (IHG), a British luxury hotel brand, in terms of worth. This will be accomplished by applying the Discounted Cash Flow (DCF) model for valuation, which will show the InterContinental Hotels Group's perceived worth in relation to the discounted projected future cash flows of the company's next five fiscal years. The weighted average cost of capital will then be used to discount the terminal value and the anticipated free cash flows. The enterprise value, which forms the foundation of the DCF valuation, is determined by adding the discounted free cash flows and the terminal value. After the DCF is constructed, sensitivity and scenario analyses will be carried out. The weighted average cost of capital (WACC) and growth rates, as well as their respective effects on the enterprise value and equity share price of InterContinental Hotels Group, will be demonstrated by the sensitivity analysis. A bullish case and a bearish case, along with their respective implications on IHG's enterprise and equity value, will be presented as two alternative scenarios to the projected "base case" in the scenario analysis. After that, a relative valuation will be carried out in contrast to the DCF valuation, which looks for intrinsic value. An alternate method of determining the worth of IHG will be possible through the use of multiples in relative valuation, which standardizes pricing by taking into account similar enterprises' shared factors. Investment decisions derived from either methodology can then be evaluated by combining these two distinct ways of valuation. In light of this, the thesis will close with a buy/sell investment recommendation.

1.2 IHG Overview

The British global hospitality corporation InterContinental Hotels Group (IHG), sometimes known as IHG Hotels & Resorts, is based in Windsor, England. Both the New York Stock Exchange and the London Stock Exchange list it. It is included in the FTSE 100 Index as well. Windsor, Berkshire, England is home to the company's global headquarters as well as its European offices. Atlanta, Singapore, and Shanghai are home to IHG's regional offices.

IHG operates hotels through three distinct channels: franchising, managing, and owning and leasing properties. IHG stated that it owned and controlled almost 5,400 hotels in 2012. Of those, 4,433 were franchised, 907 were managed by the company but were privately held, and eight were owned directly. As of March 31, 2019, IHG operated 5,656 hotels with 842,759 guest rooms spread over almost 100 countries. On Friday, December 30, 2022, the closing price of IHG's shares was $58.34. At the end of the year, the Group's market capitalization was £8.3 billion.

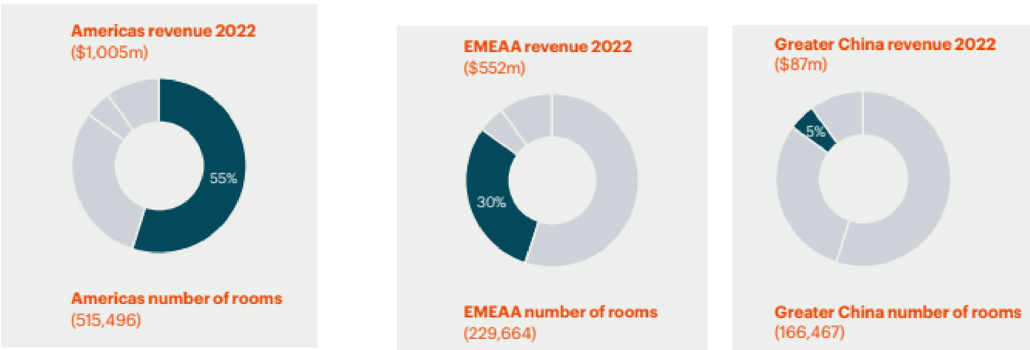
1.3 IHG Financials

Revenue for the InterContinental Hotels Group was $3892 million in FY2022, increasing 33.9% from FY2021. The Americas, which are primarily represented by the US, contributed for 25.8% of the group income. EMAA as a region provided about 21.4% of the revenue. 2.2% of the total revenue came from the Greater China region. First quarter year-over-year growth in group comparable RevPAR was 60.8%; subsequent quarter growth was 43.9%; third quarter growth was 27.8%; fourth quarter growth was 25.6%; and full year growth was 36.6%. To reach $3,892 million, total revenue climbed by $985 million (33.9%), including a $243 million rise in cost reimbursement revenue. The better trading circumstances drove a $453 million (32.6%) increase in revenue from reportable sectors to $1,843 million. With underlying fee revenue rising by $317 million, underlying revenue saw a $509 million gain to $1,817 million. Revenue from owned, leased, and managed leases rose by $157 million. With a $94 million increase in the reported System Fund deficit and a $66 million increase in charges from operating extraordinary events, operating profit increased by $134 million to $628 million.

1.4 Local Sales

With a wide range of brands, IHG has operations in China, Europe, and the Americas. In the Middle East and Europe, IHG is well-established. The company is adding new locations to its portfolio throughout the Americas, and it is adding 397 new hotels to its current 443 properties in China. Sales have continuously dominated in the Americas, which is mostly represented by the US. EMEAA and China are the next two largest regions.

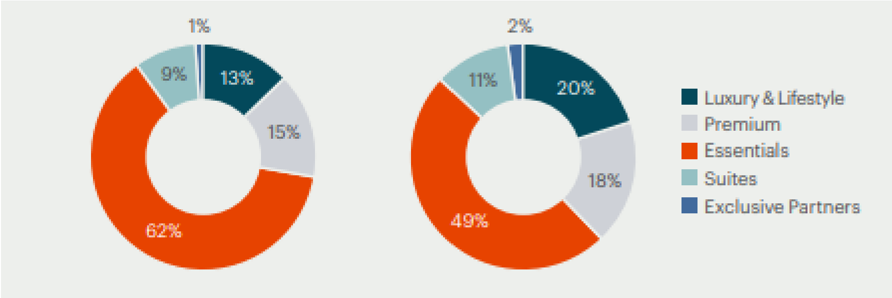
Figure 1: IHG Sales by region (Source: IHG 2022)



1.5 Sector of Business

IHG offers a portfolio of 18 brands in the Luxury & Lifestyle, Premium, Essentials, Suites, and Exclusive Partners categories spread over more than 100 countries to spur growth. IHG is an asset-light company whose primary goal is to increase fee margins and revenues while requiring little in the way of capital. The company manages hotels for independent hotel owners and mostly franchises its brands. Although the company will still lean more toward Essentials, the pipeline indicates that growth in the Premium and Luxury & Lifestyle sectors will increase in percentage and that the geographic distribution will become more uniform.

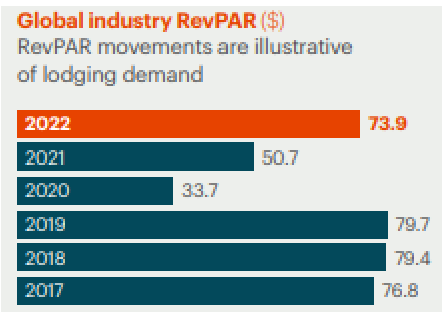
Figure 2: IHG sales by business areas (Source: IHG 2022)



1.6 Industry Synopsis

The hotel business worldwide has exhibited remarkable resilience among the socioeconomic concerns of 2022. There is no doubt that long-term structural growth is possible as 2023 approaches. The $550 billion hotel sector has strong structural growth drivers, supported by the growing middle class in emerging nations with rising disposable income, population expansion, and the innate need and desire to travel for both business and pleasure. Over the ten years between 2012 and 2022, the net new supply of hotel rooms worldwide increased at a compound annual growth rate (CAGR) of 2.0%. Future projections point to a similar rate. Longer-term economic difficulties might play a bigger role in 2023, and health-related travel restrictions might reappearance. This would explain the recent fluctuations in demand.

Figure 3: Hospitality Industry RevPAR



2.0 Methodology

The models used to value InterContinental Hotels Group will be introduced in this chapter of the report. The section begins with a brief definition of valuation, followed by an explanation of the valuation models, DCF and Relative Valuation. The determinants highlighted in this chapter will be defined and applied to Richemont in conjunction with the issues addressed in Chapter 3.

2.1 Overview of Valuation

A valuation analysis focuses on cash generation and its sustainability over the asset's lifetime. The role and importance of valuation are being reformed in a variety of fields, including portfolio management, acquisition analysis, and corporate finance (Damodaran, 2012). Every asset has a monetary value. Any preconceptions or biases brought to the valuation process by the individual will be reflected in the valuation.

2.2 Discounted Cash Flow (DCF)

The value of an asset in DCF valuation is the value of the asset's expected (future) cash flows discounted back at a rate that reflects the risk associated with achieving these cash flows (Damodaran, 2012). A DCF valuation is based on an asset's expected cash flows. Assets with high and predictable cash flows should be worth more than assets with low and unpredictability.

The value of an asset is estimated using the present value of the expected cash flow associated with it, which can be calculated using the equation below:

Equation 1: DCF- Value of Asset

$$Value\ of\ asset = \sum_{t=1}^{N} \frac{E(CF)_t}{(1+r)^t}$$

Where: $E(CF)_t$ = Expected cash flow in period t
r = Discount rate reflecting riskiness of estimated cash flows
N = Life of asset

A company's free cash flows are typically projected in a DCF for a five-year period, though this can vary depending on the industry and the company's stage of development.

Equation 2: Discounted Cash Flow

$$\mathrm{DCF} = \frac{\mathrm{CF}_1}{(1+r)^1} + \frac{\mathrm{CF}_2}{(1+r)^2} + \ldots + \frac{\mathrm{CF}_n}{(1+r)^n}$$

DCF = Discounted cash flow
CF = Cash flow period
r = Interest rate
n = Cash flows for the final year being considered in the DCF financial analysis

Owing to factors like economic cycles, it can be challenging to predict a company's financial performance over an extended period of time. For this reason, a terminal value is computed to represent the firm's residual value after the projected five-year period (Pearl and Rosenbaum, 2009).

The weighted average cost of capital must be used to discount both the terminal value and the anticipated free cash flows. An enterprise value is established by adding the discounted present value and the terminal value, and this value forms the foundation for the DCF valuation.

It should be noted that DCF valuation has limitations, particularly its sensitivity to assumptions about the perpetual growth rate and the discount rate (Pearl and Rosenbaum, 2009). A sensitivity analysis can be used to assess the sensitivity of changes in these assumptions.

The use of a scenario analysis can also allow for the testing of cases other than the base case investigated in the report. The scenario will present a base case, a bullish case, and a bearish case, as well as the relative effects on the enterprise and equity value.

2.3 Relative Valuation

By contrasting an asset with other assets that have comparable risk/return profiles and fundamental qualities, relative value determines the approximate value of an asset. An asset's relative value is determined by contrasting it with a group of related assets known as a "peer group."

In contrast to a DCF valuation that looks for an intrinsic value, a relative valuation approach believes the market to be correct. In accordance with Damodaran (2012), relative valuation is the process of determining an asset's value by standardizing the pricing of comparable assets based on shared variables like revenues or book values. Multiples are a tool for relative valuation; using the right multiples will enable cross-checking of DCF conclusions.

Multiples are classified into four types: sales multiples, earnings multiples, book value multiples, and 'value' multiples. The price-book value ratio (PBV) is an example of a book value multiple, in which assets selling at a discount to book value relative to comparable firms are perceived as undervalued.

If the derived multiple for the company being valued is significantly higher than its peers, a strong justification must be provided. It is also critical to understand the fundamental variables driving the multiple, as they may lead to incorrect conclusions. For example, a high Price to Earnings ratio may be due to a higher expected growth rate, which is likely to have positive implications.

The multiples that were chosen for this valuation are as follows:

- Price/Earnings Ratio (P/E)

- Enterprise Value/EBITDA (EV/EBITDA)
- Enterprise Value/EBIT (EV/EBIT)
- Enterprise Value/Revenue (EV/Rev

2.4 Data Sources

In addition to information from independent sources being used to complete the valuation, historical financial data from Bloomberg and annual reports were used to support the analysis.

3.0 Empirical Analysis

The purpose of this section is to run the valuation models introduced in Chapter 2 and present the results. The execution of this will reveal InterContinental Hotels Group's perceived value, allowing an investment recommendation to be made.

3.1 Previous Financial Results

Analysing historical financial reports from a valuation perspective is crucial before beginning the InterContinental Hotels Group's valuation process. This should make it possible to identify the investment narrative's primary value drivers and understand how IHG is getting ready for the future.

The historical period for IHG that was analysed was from FY2013 to FY2022. The average sales growth rate for this time period was around 15%. The capex to sales ratio is lower than the ratio of depreciation to sales, this means that the firm is probably underinvesting in maintaining or increasing its productive capacity if its average capital expenditures (capex) as a proportion of sales are lower than its depreciation expense as a percentage of sales.

In conclusion, capex below depreciation suggests that asset renewal is probably still needed but isn't being taken care of. Until reinvestment takes place, it jeopardizes the competitiveness and sustainability of growth. Planning infrastructure investments proactively is essential to ensuring that capital expenditures and asset usage are in line.

Table: Working Capital Schedule

working capital schedule	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	31-Dec-13	31-Dec-14	31-Dec-15	31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21	31-Dec-22
total current assets	928	934	1606	796	863	1373	935	2243	2066	1678
total current liabilities	928	943	1369	1150	1280	1407	1365	1867	1624	1544
total working capital	**0**	**-9**	**237**	**-354**	**-417**	**-34**	**-430**	**376**	**442**	**134**
change in working capital		**-9**	**246**	**-591**	**-63**	**383**	**-396**	**806**	**66**	**-308**
sales	1903	1858	1803	3912	4075	4337	4627	2394	2907	3892
change in sales		-45	-55	2109	163	262	290	-2233	513	985
chg. w.c / chg in sales		20.00%	-447.27%	-28.02%	-38.65%	146.18%	-136.55%	-36.09%	12.87%	-31.27%
working capital										**-59.87%**

A sound investment analysis needs to determine the level of risk that equities investors incur as well as the degree of risk that Richemont has made throughout the course of his investing career. The primary source of short-term liquidity risk is the requirement to finance ongoing activities.

The current ratio and the quick ratio are two ratios that are frequently used to track short-term liquidity risk. Gallo (2015) states that the current ratio is a gauge of a business's capacity to settle its immediate debt with its current assets. This formula is used to compute it:

Equation: Current Ratio

$$Current\ Ratio = \frac{Current\ Assets}{Current\ Liabilities}$$

The current trend in the ratio for InterContinental Hotels was determined by computing historical data over the last ten years. It is important to remember that current ratios can be adjusted to suit financial reporting schedules. In IHG's instance, it appears that this has happened because current assets and liabilities for 2013 are identical. The corporation appears to be attempting to maintain a balance between its present assets and obligations. And as a result, the working capital appears to be inappropriate at -59.87%.

3.2 Drivers of Performance

To identify factors that create or destroy value, one must first gain an understanding of the valued firm and the industry in which it operates. This is the first step in performing a DCF.

The following factors influenced InterContinental Hotel Groups' overall performance:

- Released a new mobile application to assist visitors with their desired online experiences.
- Ongoing efforts to guarantee each of our brands receives a consistently high-quality experience, including enhancements to the food and beverage offerings, hotel amenities, and customer service.
- The Holiday Inn Brand Family is still strong, with 20,265 rooms opened and 23,056 signed—nearly 30% of all rooms signed.
- Iberostar Beachfront Resorts signed 18,467 rooms, bringing the total number of brands to 18.
- Advancing of the Luxury & Lifestyle portfolio to 20% of pipeline and 13% of system size.
- The additional growth of the recently launched brands was the other important factor. Which is being shown by the following facts:

- Voco's continuous international growth, which has seen it reach about 100 open and signed hotels in 29 countries since its launch in 2018.

- Started the first two Atwell Suites and expanded the chain to include 30 properties.

- 17 properties have been secured since the Vignette Collection launched in 2021.

- As avid hotels were developed to be the next scale brand, the company has nearly 60 hotels open and more than 140 more properties in the pipeline.

3.3 Free Cash Flow Projections

Sales projections were created considering the InterContinental Hotel Group's strategic internal initiatives as well as external variables like the political, financial economic, and social environments in the Americas, Europe, Middle East, Africa, and China.

3.3.1 Sales growth factors applicable to IHG worldwide

Several things fuel the hospitality sector's expansion. According to a study, the following variables have an immediate impact on or a proportionate relationship with the growth of the hospitality industry:

Pent-up demand for travel: As travel restrictions loosened following years of travel limitations due to the COVID-19 epidemic, there was a notable increase in consumer demand for travel and hospitality services. Bookings and travel expenditures have increased as a result. Trends in remote work: With the popularity of remote work, some travellers now have greater freedom to take longer vacations, see more places, and even work from hotels. To draw in these visitors, hotels have started providing amenities and dedicated co-working areas. Travel for pleasure and wellness: Demand for hotels and resorts with a wellness focus has increased as a result of tourists looking for more opportunities for rest, relaxation, and wellness during their travels. Nowadays, a lot of hotels have wellness programs. Growth in midscale and budget hotel segments: Apart from luxury travel, these hotel segments have experienced growth in several countries, providing more options for tourists who are budget conscious.

The following are some of the main factors boosting InterContinental Hotels Group's (IHG) sales growth in all regions:

- Global footprint expansion: IHG may spur development by extending its reach into new areas and markets, particularly in developing nations with greater rates of economic growth. The clientele expands as additional hotels are added throughout the world. For instance, IHG Hotels & Resorts has opened voco Fiorello – LaGuardia East as part of its ongoing efforts to increase the brand's visibility.
- Deepening participation in IHG's loyalty programs increases wallet share capture and repeat guest rates since members pick IHG hotels more frequently in order to accrue and spend points.
- Recovery from group/business travel: Rebounding corporate events, meetings, and business travel volumes will probably increase lodging occupancy and food and beverage revenues as the effects of the epidemic recede.
- Making use of internet platforms new sales channels are made possible by improved capacities to attract visitors through online travel agents, meta search channels, and digital marketing alliances.
- Novel ideas for brands: Launching specialized brands, such as Atwell Suites extended stay, to cater to particular hotel niches enables price optimization and satisfies the demands of modern consumers.
- Fees and ancillaries: In order to increase income, IHG has the chance to increase attachment rates on extra services including spas, travel-based excursions, resort activities, event hosting fees, and more.
- Local partnerships/franchising: IHG may extend its sales network and get access to real estate, expansion capital, and market experience by partnering with strong regional players to run brands under franchise agreements.

Sales might eventually rise across all geographies due to a mix of factors including network expansion, devoted customers, reviving business demand, and creative brand tactics. It's critical to carry out these fronts.

3.3.2 Factors Affecting Regional Sales Growth

AMERICAS

The region of Americas is mostly represented by the US. Therefore, US is a very important market for InterContinental Hotels Group, since majority of the profit for IHG come from this region. The group's sales increased by more than 25% in the Americas when measured on a revenue per available room (RevPAR) basis, which is a common metric used by the hospitality industry.

However, due to strict international travel regulations, reservations in every area are still much below their pre-pandemic levels, with trade in Europe, the Middle East, Africa, and Asia still extremely low. IHG's total occupancy rates were 21% lower than the same period two years ago, while RevPAR was more than 40% lower, even though demand began to pick up in May and June. While RevPAR was down more than 40%, overall occupancy rates were down 21% from the same time two years ago.

The company's revenue has mostly relied on domestic travel, but even in areas with strong performance, such as Americas, the number of visitors visiting big cities has not increased. This may be the result of their desire to stay away from busy areas where there is a greater chance of contracting Covid-19.

Franchisees have filed a proposed class action lawsuit against Intercontinental Hotels Group (IHG) in a Georgia federal court, citing IHG's alleged facilitation of hacker access to the company's network, which led to the exposing of personal data and disruptions in operations. Controversies like this can affect the appeal of IHG and its share price negatively.

US economic downturn and recession risk There are increasing dangers of economic headwinds due to rising interest rates and excessive inflation. Decreases in both business and pleasure travel are possible during a recession. Political unrest and instability in Latin America An unstable operating environment is created by the region's continuous upheaval, which ranges from social turmoil in Chile and Peru to changes in Brazil's political landscape.

Growing political animosity toward the US - Growing rhetoric and policies against the US government in some regions of Latin America may encourage consumer boycotts of US-based companies.

COVID-19 resurgences: Periodic COVID waves and limitations affect parts of the US and Latin America, which inevitably affect travel schedules and reservations.

Increasing tax burdens: Multinational corporations may see a decline in profitability as a result of tax increases or stricter rules pertaining to labor, data protection, etc.

Foreign currency volatility: Future earnings are unpredictable due to the significant fluctuations in developing market currencies such as the Mexican Peso and Brazilian Real.

The industry RevPAR in the Americas grew by 7.7% over 2019 and by 35.5% compared to 2021, mostly due to the relative strength of the luxury and higher upscale sectors in the US and the ongoing recovery in Canada and Mexico. RevPAR has rebounded to 2019 levels in the majority of the Americas, mostly due to higher average daily rates (up 19.3% over 2021), which were more than 13% higher than pre-pandemic levels. Although they increased 7.3% points from 2021 to 2022, occupancy levels did not return to pre-pandemic levels. While supply grew by 0.7%, overall demand for hotel rooms surged by 14.3%. Room demand increased by 11.0% in 2022 while supply grew 0.6%, suppressed due to supply-side construction delays.

IHG's comparable RevPARa in the Americas climbed by 28.5% from 2021 (up 3.3% from 2019), mostly due to a 15% rise in average daily rate and a 7.0% point increase in occupancy.

The US, which has the largest population in the area, had a comparable RevPARa rise of 24.5% from 2021 to 2022.

EMEAA

At the end of 2022, EMEAA accounted for 1,169 hotels and 2,29,664 rooms, or 25% of the Group's total number of rooms. Hotels in the UK and gateway cities in continental Europe, the Middle East, and Asia are the main sources of revenue. In the UK and continental Europe, the majority of rooms are run on a franchise basis, mostly under our higher midscale brands (Holiday Inn and Holiday Inn Express).

While the bulk of InterContinental-branded hotels in the premium market sector are run under management agreements, Crowne Plaza's operations are split equally between managed and franchised models in the upmarket market group. In markets outside of Europe, managed business models are used to operate the bulk of hotels.

By the year's conclusion, practically every market had removed the limitations. The domestic leisure demand continues to favor continental Europe. The UK, which had one of the first relaxations of limitations, witnessed a 1% increase in RevPARb overall in 2022 compared to 2019, rising to 12% in Q4. Additionally, the Middle East had a 25% increase in Q4 compared to 2019 due to the demand from across the world for the FIFA World Cup.

In 2022 and beyond, a number of significant political, economic, and other variables may pose a threat to IHG (InterContinental Hotels Group) in Europe, the Middle East, Asia, and Africa (EMEAA):

Risks associated with an impending European recession include rising inflation, the energy crisis brought on by the conflict between Russia and Ukraine, and the possibility of third-party responsibility. Middle East political instability - Operational risks stem from the ongoing crises in Syria, Yemen, and Libya as well as the tumultuous relationship between Israel and Palestine.

Covid resurgences in Asia - Travel has been severely impacted by abrupt lockdowns in entire areas due to China's new Covid waves and the zero-Covid policy. This may go on. Emerging market currencies such as the Turkish Lira, Egyptian Pound, Pakistani Rupee, and others are very volatile due to broader economic issues, which casts doubt on profitability. Increasing oil and energy expenses: Fuel prices are a significant cost issue in the hospitality industry. These prices drive up operational costs, which further reduces profit margins. Geopolitical tensions: Tight relations between the West and Russia have affected investor confidence and travel patterns to other areas, particularly affecting economies that rely on tourism and aviation.

GREATER CHINA

All levels' RevPAR decreased in comparison to 2021. In comparison to 2021, Tier 1 cities had a 21.3% drop in RevPAR, owing to an 11.9% loss in room demand. Driven by both occupancy and average daily rate, RevPAR fell 11.8% in Tier 2 cities compared to 2021, while it fell 13.6% in Tier 3 cities. In Tier 4 cities, demand fell by 8.4%, which resulted in a 15.6% drop in RevPAR from 2021. The average daily rate grew by 34.9%, which drove a 41.9% increase in RevPAR in Hong Kong SAR. Macau's SAR RevPAR fell 32.6% compared to 2021, as demand fell 11.3% because of its dependency on tourism from mainland China.

As the area continued to be affected by localized travel restrictions, IHG's regional comparable RevPAR in Greater China fell by 13.5% compared to 2021 (down by 38.1% vs 2019). This fall was primarily caused by a 5.5%pts decrease in occupancy and a 2.5% decrease in average daily rate. RevPAR fell by 17.4% in Mainland China, with Tier 1 cities experiencing the worst loss—a 23.6% decline—while Tier 2-4 cities had a 14.8% decline.

The following are some possible causes of the 2022 fall in IHG (InterContinental Hotels Group) revenues in Greater China, which may also have an impact on the company's future:

China's zero-Covid policies and lockdowns: In an effort to aggressively limit even minor Covid outbreaks, China enforced stringent lockdowns and movement restrictions, particularly in large cities and commercial centers like Shanghai. The demand for lodging and domestic travel were severely impacted by this.

China's economy is contracting: China's growth stopped in 2022 because of COVID-19 interruptions and ongoing real estate turbulence. Spending on hospitality services was hurt by a fall in consumer confidence and a decrease in economic activity.

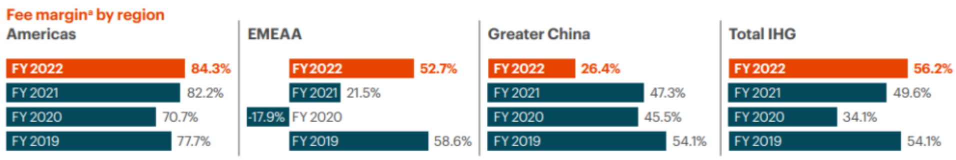
Declining demand from visitors from abroad: International arrivals, particularly well-heeled visitors from other countries, were severely restricted by border controls, which drastically reduced hospitality earnings.

Tensions in US-China trade policy: As political tensions translated into boycotts by consumers, the decline in economic ties between China and important source markets such as the USA may have negatively impacted the demand for hospitality in the Chinese market.

Competitive pressures: In certain Chinese tiers 2-4 cities, IHG may have faced competition from newly established foreign companies as well as from China's quickly expanding local hotel chains. Investor aversion towards China: In the near term, investor capital may have been diverted from China into more stable markets as a result of global economic uncertainty and volatility in the Chinese capital markets, which may have affected expansion ambitions.

In summary, the main causes of IHG's Greater China sales difficulties in 2022 include Covid interruptions, dwindling consumer travel, and tense trade relations. In the upcoming months, China's post-pandemic opening up will be crucial to recovery.

Figure: Fee margin



3.3.3 Cost of Goods

For the purpose of obtaining information on the Cost of Goods Sold for InterContinental Hotels Group, the historical data for the company has been retrieved beginning in the year 2013 and continuing through the year 2022. In spite of the fact that there has been a substantial rise in income from the fiscal year 2013 to the fiscal year 2017, there has been no growth in the cost of products sold. From the fiscal year 2013 to the fiscal year 2022, it has been falling from 784 to 571. Despite the fact that the corporation received a substantial amount of money from some of its long-term investments, one of the likely reasons for this is that the service offered by IHG was not used by individuals, which would have resulted in an increase in the cost of goods sold.

As a result of the global pandemic Corona, which caused limitations all over the globe, there was a large decrease in the cost of goods sold from the year 2019 to the year 2020. This was the reason for the reduction. For a period of many months, which lasted for nearly a year, people were unable to travel since lockdowns were in place. In addition, since customers were unable to utilise the services that InterContinental Hotels Group offered, such as hotels, resorts, and other similar establishments, there was no sale of the commodities that were sold (service) by the company.

Figure: Cost of Goods Sold

In Millions of USD except Per Share 12 Months Ending	FY 2013 12/31/2013	FY 2014 12/31/2014	FY 2015 12/31/2015	FY 2016 12/31/2016	FY 2017 12/31/2017	FY 2018 12/31/2018	FY 2019 12/31/2019	FY 2020 12/31/2020	FY 2021 12/31/2021	FY 2022 12/31/2022
Income Statement										
Revenues										
Revenues	1,903.0	1,858.0	1,803.0	3,912.0	4,075.0	4,337.0	4,627.0	2,394.0	2,907.0	3,892.0
Product Revenue	—	—	—	—	—	—	—	1,757.0	2,318.0	3,060.0
Service Revenue	—	—	—	—	—	—	—	637.0	589.0	832.0
Turnover Continuing Operations	—	—	—	—	—	—	—	—	—	—
Total Revenue	**—**	**—**	**—**	**3,912.0**	**4,075.0**	**4,337.0**	**4,627.0**	**2,394.0**	**2,907.0**	**3,892.0**
Operating Expenses										
Cost of Goods Sold	784.0	741.0	640.0	548.0	571.0	688.0	790.0	354.0	486.0	648.0

3.3.4 Operating Expenses

The IHG's operational expenditures have been fluctuating throughout the years, and these swings may be linked to a number of different sources depending on the circumstances. For the most recent annual reporting period, InterContinental Hotels Group (IHG) stock's other operating expenses came to -$29 million. That is a 163.64% decrease from the prior year.

For the purpose of gaining an understanding of the processes that are driving the trend, it is essential to investigate the particular years in which substantial changes took place:

1. Decrease in Operating Expenses throughout the Years 2013-2015

This drop may have been caused by a number of factors, including measures to reduce costs, improvements in operational efficiency, or favourable market circumstances that enabled the firm to optimise its cost structure.

2. A Significant Rise in 2016

In 2016, the operational expenditures reached a figure of $2.659 billion, representing a considerable rise. There are a few possible explanations for this, including one-time expenditures, strategic investments, or the inclusion of special items that temporarily boosted costs during that particular year.

3. 2017–2018: A Slightly Increasing Trend

These increases might be the result of a number of factors, including attempts to expand the business, increased prices of inputs, or expenditures in technology and infrastructure to support the development of the organisation.

4. The decrease in operating expenses for the years 2019-2021

IHG was able to bring down its operational expenditures throughout the course of the ensuing years, bringing them down to $2.195 billion in 2019, $1.930 billion in 2020, and $2.586 billion in 2021 respectively. These decreases might have been caused by a number of factors, including measures for cost savings, operational streamlining, and modifications made in reaction to market circumstances or economic constraints.

Figure: Operating expenses

FY	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Operating Expenses	626	579	555	2659	2790	3080	3225	2195	1930	2586

Operating Expenses										
Cost of Goods Sold	784.0	741.0	640.0	548.0	571.0	688.0	790.0	354.0	486.0	648.0
Sales/Marketing/Advertising Expenses	—	—	—	1,164.0	1,276.0	1,379.0	1,422.0	867.0	939.0	1,322.0
Depreciation and Amortization	85.0	96.0	96.0	75.0	78.0	115.0	116.0	110.0	98.0	68.0
Other Operating Expenses	—	—	—	1,046.0	1,103.0	1,171.0	1,171.0	637.0	589.0	832.0
Write-Down/Impairment of Assets	—	—	—	16.0	18.0	0.0	131.0	314.0	4.0	0.0
Other One-Time Charges	—	—	36.0	—	—	—	—	—	—	—
General and Administrative Expenses	541.0	483.0	420.0	345.0	337.0	415.0	385.0	267.0	300.0	364.0
Other Operating Income	172.0	146.0	891.0	9.0	11.0	14.0	21.0	16.0	11.0	29.0
Operating Income	673.0	680.0	1,499.0	712.0	728.0	582.0	630.0	-153.0	494.0	628.0
Equity In Earnings of Joint Ventures	-8.0	4.0	—	2.0	-3.0	1.0	3.0	14.0	8.0	59.0
Other Operating (Income)/Expense - Net	—	—	3.0	13.0	-22.0	—	—	—	—	—
Wages And Salaries	—	—	—	—	—	—	—	—	—	—
Social Security Costs	—	—	—	—	—	—	—	—	—	—

3.3.5 Tax

The research that follows explains why IHG's effective tax rate for 2022 is 30.37%, based on the company's previous ten years of historical data:

- IHG's effective tax rate has varied significantly from year to year during the past ten years, from a low of 13.31% to a high of 37.67%.
- Changes within the US may also play a role (greater income in areas with higher state taxes than in previous years).
- Currently, the statutory corporation tax rate in the UK is 19%. IHG, a multinational corporation with operations in several countries, must, nevertheless, compute taxes according to the income received in each region.
- Since the Americas have higher statutory tax rates than the UK, the Americas probably account for the majority of IHG's revenues and earnings. For instance, the current federal corporation tax rate in the United States is 21%. Additional tax rates may also be imposed by municipal and state levies.
- IHG may be computing and collecting income taxes at a blended rate of around 25–27% for the Americas region, depending on the mix of jurisdictions and state taxes in the locations where it operates hotels and generates revenue.
- Profits made in tax havens like Greater China and EMEAA would, however, dilute this rate on a global consolidated basis. After accounting for global outcomes, the ultimate effective tax rate for 2022 is 30.37%.

In conclusion, it seems likely that IHG's blended/weighted average global tax rate of 30.37% is the result of substantial U.S. businesses that are subject to higher tax rates than the UK headquarter jurisdiction. A thorough examination of their unique tax statuses and geographic profit mix would be necessary to determine the precise computations. In general, however, a 30%+ effective rate makes sense considering IHG's significant market share in higher-tax Americas regions.

3.3.6 Depreciation

The depreciation of the company is assumed as 3.50% for the FY2023, by calculating the average of the ratios of depreciation & amortisation and sales of IHG from the year 2013 up until 2022.

Below is an evaluation of the anticipated depreciation trend for IHG based on the net property, plant, and equipment (PP&E) data and the depreciation/sales ratio assumptions provided:

- Between 2013 and 2021, the net property plant and engineering of IHG significantly decreased, pointing to a time of lesser capital investment and aging/full depreciation of assets. Net values decreased as a result.
- On the other hand, a modest increase in net PP&E in 2022 suggests that some reinvestment was made. The values are still much below past levels.
- We would anticipate that as assets age and approach the end of their useful lives, depreciation expenditure will trend downward over time, despite investments dropping then ticking back up in 2022. However, there is a bump higher due to the 2022 capex.
- More specifically, this indicates that management anticipates a slight decrease in depreciation expenditure as a percentage of revenue, based on expected depreciation/sales ratios ranging from 3.5% (2022) to 2.7% (2026).
- Depreciation will correspond with sales patterns in terms of money. However, when assets gradually age out throughout the projection period, the decreasing ratios generally suggest a tapering of the depreciation expenditure.

In conclusion, the extremely low historical capex numbers point to underinvestment in assets, which will probably cause depreciation to decrease over time.

3.3.7 Capex

An indication of the capital intensity of IHG's business model is provided by net capital expenditure. After deducting contract acquisition costs (net of repayments) and excluding any material investments made in acquiring businesses, such as any subsequent payments of deferred or contingent purchase consideration included within investing activities, which are typically non-recurring in nature, net capital expenditure is calculated from net cash from investing activities. The inflows from any disposal revenues or payouts from partners and joint ventures are included in net capital expenditure.

The management views net capital expenditure as a relevant metric since it shows IHG's net capital investment after accounting for capital recycling through asset sales and the System Fund's financing of strategic initiatives. It makes the cash flows devoted to long-term investments that support the Group's strategy visible to investors and other stakeholders.

The capex for IHG FY2023 is assumed as 2.50% by calculating the average of the ratios of the capital expenditure and sales from the year 2013 till 2022. The ratio keeps on decreasing with a rate of 0.25%. This suggests that although capex spending may rise annually in terms of dollars in response to sales growth, over the following five years it is anticipated that the pace of capex as a percentage of sales would gradually decline.

Possible explanations for the pattern of diminishing ratios:

- IHG has just concluded significant investment initiatives, so it will require less further funding in the future.
- The initiative aims to maximize the usable life of current assets and improve capital efficiency.
- Modifying the asset-light business plan and giving franchise partners more capital obligations
- Hospitality sector trends or macro variables influencing reinvestment appetites

3.3.8 Working Capital

It's common to refer to working capital as the difference between current assets and current obligations. The definition may be somewhat altered depending on the valuation's goal. Operational working capital is necessary for the DCF. According to Goedhart, Koller, and Wessels (2010), operating working capital does not include any non-operating elements like surplus cash or dividends payable.

Forecasts were based on an analysis of historical trends. But according to stern NYU, the working capital ratio by sector (US) for hospitality industry is 7.51%. The working capital calculated using the company data from the IHG financial reports seems to be manipulated because it seems the company is trying to even out the asset and its liabilities, which is in turn affecting the company working capital ratio.

Figure: Working Capital Schedule

working capital schedule	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	31-Dec-13	31-Dec-14	31-Dec-15	31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21	31-Dec-22
total current assets	928	934	1606	796	863	1373	935	2243	2066	1678
total current liabilities	928	943	1369	1150	1280	1407	1365	1867	1624	1544
total working capital	**0**	**-9**	**237**	**-354**	**-417**	**-34**	**-430**	**376**	**442**	**134**
change in working capital		**-9**	**246**	**-591**	**-63**	**383**	**-396**	**806**	**66**	**-308**
sales	1903	1858	1803	3912	4075	4337	4627	2394	2907	3892
change in sales		-45	-55	2109	163	262	290	-2233	513	985
chg. w.c / chg in sales		20.00%	-447.27%	-28.02%	-38.65%	146.18%	-136.55%	-36.09%	12.87%	-31.27%
working capital										-59.87%

3.4 Weighted Average Cost of Capital

The weighted average cost of capital (WACC) of a company is the total cost of capital from all sources combined, including debt, preferred shares, and common shares. Each capital type's cost is divided into equal parts according to its percentage of total capital, and the overall cost is then totalled.

WACC is the discount rate used in financial modelling to determine a company's net present value. To be more precise, WACC is the discount rate applied in the unlevered free cash flow approach to business or project valuation. WACC can also be understood as the needed rate that an investor must meet in order to contemplate making an investment in the company. The equation given below is the formula used to find out WACC.

Equation: WACC

WACC = After Tax Cost of Debt × % of Debt in Capital Structure + Cost of Equity × % of Equity in Capital Structure

$$WACC = [\, r_d \times (1 - t)\,] \times \frac{D}{D+E} + r_e \times \frac{E}{D+E}$$

Where: r_d = cost of debt
r_e = cost of equity
t = marginal tax rate
D = market value of debt
E = market value of equity

3.4.1 Cost of Debt

The cost of debt for the company is 3.95%. To find the cost of debt, the risk-free rate is added to debt spread which is then multiplied to 1 minus effective tax rate.

The risk-free rate (10-year treasury) that has been taken for the company is 3.67%, which is taken in accordance with the average risk-free rate (RF) on investments in the United Kingdom for 2023. We have taken the RF of United Kingdom since the company is headquartered in the UK.

The Debt Spread is taken to be 2% for InterContinental Hotels Group. For this the credit rating of the company is taken into consideration and since the credit rating of the IHG is BBB according to S&P and Baa2 according to Moody's, the debt spread is 2% for such companies.

Figure 1: Cost of Debt

Risk-free (10-year Treasury)	**3.67%**
Debt Spread	**2.00%**
Effective Tax rate	**30.37%**
Cost of Debt (rd)	**3.95%**

3.4.2 Cost of Equity

The return that an investor needs to hold equity in a company is known as the cost of equity. It stands for the payment that investors require in exchange for assuming the risk of owning a specific stock. The risk-free rate, the market risk premium, and the stock's beta (systematic risk) are considered when calculating the cost of equity using the Capital Asset Pricing Model (CAPM).

The following formula can be used to determine the cost of equity using CAPM:

Equation: Cost of Equity

$$\text{Cost of Equity} = \text{Risk-Free Rate} + (\text{Beta} \times \text{Market Risk Premium})$$

Risk Free Rate

The interest rate that an investor can anticipate receiving on a risk-free investment is known as the risk-free rate of return. Generally speaking, the interest paid on a highly rated 10-year government Treasury note—which is typically the safest investment an investor can make—is equivalent to the risk-free rate in practice.

This will only happen if there is no default risk, which suggests that a government issuance is required for the security to be issued. However not all governments are default-free. An additional need for an asset to be categorized as risk-free is that there must be no ambiguity about reinvestment rates, which would suggest the absence of intermediary cash flows.

In the case of InterContinental Hotels Group, the United Kingdom bond was deemed to be the appropriate risk-free rate. InterContinental Hotels Groups is listed in both NYSE and LSE but since its financial reports were reported in dollars, the IHG financials of NYSE were taken to form the DCF although the company is headquartered in the United Kingdom. The United Kingdom 10-year bond yield was 3.6757% as of 30th December 2022. Therefore, the risk-free rate (10-year treasury) in the IHG's DCF model is taken as 3.67%.

Equity Beta

Beta is the measurement of an asset's risk in respect to the market (the S&P 500, for instance), a different benchmark, or other variables. A security with a beta of 1.5 will fluctuate on average, 1.5 times the return on the market. Since the market is said to have a beta of 1.0, businesses with a beta of 1.0 are anticipated to yield returns that are identical to the market; on the other hand, businesses with a beta of less than 1.0 are said to have lower systematic risk than the market, while those with a beta of more than one is said to have more systematic risk. Because a larger beta will translate into a higher cost of equity, stocks with higher systematic risk are included in the CAPM calculation.

The United Kingdom's market index, which is where InterContinental Hotels is headquartered, the SPX, or Standard and Poor's 500, or simply S&P 500 market index, and the return of InterContinental utilizing all the available data were used to determine the beta in the case of InterContinental Hotels. Next, the covariance between IHG and the market was calculated.

The unlevered beta is calculated using the formula below.

$$Unlevered\ Beta\ (Asset\ Beta) = \frac{Covariance\ of\ the\ asset\ with\ the\ Market\ Portfolio}{Variance\ of\ the\ Market\ Portfolio}$$

Equation: Levered Beta

$$Levered\ Beta\ (Beta\ Equity) = Beta\ Asset\ \times (1 + (1 - Tax\ Rate) \times \left(\frac{Weight\ of\ Debt}{Weight\ of\ Equity}\right))$$

1.12 was determined to be the levered beta, or equity beta. The company beta in DCF is taken as 1.12%. So, for 1% change in the market, the IHG's equity beta is going to change by

1.12. Therefore, the volatility is 0.12. The formula given below was then used to get the unlevered (asset beta). 1.18 was determined to be the levered beta, or equity beta.

Equity Risk Premium

The extra profits over the risk-free rate that investors anticipate in exchange for assuming the additional risks associated with the stock market are known as the Equity Risk Premium (ERP). The equities risk premium, which offsets investors' additional risk, is the difference between the yields on risk-free assets with similar time horizons and the stock market's returns.

The equity risk premium for InterContinental Hotels was taken to be 8.09%. It is vital to clarify that Equity Risk Premiums are estimates, an assumption.

The cost of equity was calculated using the CAPM formula after the equity risk premium (8.09%), risk free rate (3.67%), and equity beta (1.12%) were determined. The result was a cost of equity of 12.75 percent. As a result, WACC came to 10.83.

Figure: WACC

WACC	
Cost of Debt	
Before Tax Cost of Debt	5.67%
Effective Tax Rate	30.37%
Cost of Debt	3.95%
cost of equity	
Beta equity	1.12
Risk free rate	3.67%
ERP	8.09%
Cost of Equity	12.75%
Weights	
Weight of Debt	29.70%
Weight of Equity	70.30%
WACC	10.83%

3.5 Terminal Value

The expected value of a company after the stated prediction period is known as its terminal value. It is an essential component of the financial model since it usually accounts for a sizable portion of a company's overall worth. Academics prefer the everlasting growth approach because it is based on a mathematical theory for determining a terminal value formula. This approach assumes that the company will always produce Free Cash Flow (FCF) in a normalized state.

The formula to calculate terminal value is by adding a predicted constant growth rate to the projected cash flow for the last year of the forecasted timeframe.

Equation: Weighted Average Cost of Capital

$$TV_N = \frac{FCF_N\,(1+g)}{WACC - g)}$$

Where: g = nominal growth of FCF in perpetuity

$FCF_{N=}$ free cash flow of terminal year of the projection period

WACC = weighted average cost of capital

Using the aforementioned technique, the Terminal Value of the InterContinental Hotels Group is determined. The terminal value of InterContinental Hotels was calculated as $13,342 Million, using a weighted average cost of capital (WACC) of 10.83%, based on historical CAGR data, and a final free cash flow prediction of $1098 million in IHG's DCF model, assuming a growth rate of 2.40%.

3.6 Enterprise Value

The entire value of a firm is expressed as its enterprise value, or EV. All ownership interests and asset claims from both debt and equity are included since it considers the full market value rather than just the equity value. EV is sometimes referred to as the notional price of a target firm or the effective cost of purchasing a business (before a takeover premium is considered).

The discounted terminal value and the net present value of the discounted anticipated free cash flows will be added to determine InterContinental Hotels' enterprise value as demonstrated by the equation below.

Equation: Enterprise Value

$$Enterprise\ Value = \left(\frac{FCF_1}{(1+r)}\right) + \left(\frac{FCF_2}{(1+r)^2}\right) + \cdots + \left(\frac{FCF_n}{(1+r)^n}\right) + \left(\frac{TV}{(1+r)^n}\right)$$

$$\begin{aligned} Where\colon\ FCF &= Free\ Cash\ Flow \\ r &= Discount\ Rate \\ TV &= Terminal\ Value \\ \mathrm{n} &= \mathrm{years} \end{aligned}$$

IHG'S net present value of the discounted future free cash flows in the DCF totalled $3152 Million and the discounted terminal value amounted to $8842 Million. Resulting in an enterprise value of $11,995 Million.

3.7 Equity Value

The entire worth of the business that may be attributed to equity investors is known as equity value, also known as market capitalization or the market value of equity. It is computed by multiplying the market value of a company's shares by the total number of outstanding shares.

As demonstrated below, an alternative method of deriving it is to begin with the enterprise value of the business.

Equation: Equity Value

$$Equity\ Value = Enterprise\ Value - Net\ Debt - Minority\ Interests + Financial\ Investments$$

$Where:$

$$Net\ Debt = Interest\ Bearing\ Debt - Cash\ \&\ Equivalents\ Position$$

Using the aforementioned calculations, InterContinental Hotels Group's equity value was derived at $10,141 million. Total debt was found by summing long-term borrowings of $2341 Million and short term borrowings of $55 Million, taken from InterContinental Hotels balance sheet as of 31st December, 2022.

Figure: Equity Value

Equity Value	$millions
Enterprise Value	11995
Net Debt	-1847
Minority Interests	-7
Financial Investments	0
Equity Value	10,141

Equity Value Per Share

The equity value per share is calculated by dividing the equity value by the number of shares of the company.

Figure: Equity Value per Share

$$Equity\ Value\ per\ Share = \frac{Equity\ Value}{Number\ of\ Shares}$$

InterContinental Hotels Group's equity value of $10,141 million was divided by 181,000,000 shares to find an implied share price of $56.03.

3.8 Sensitivity Analysis

Enterprise Sensitivity Analysis

The fissure given below represents the ranges for the sensitivity analysis. An enterprise sensitivity analysis allows investors to determine how different values for the WACC and growth rates affect the enterprise value. The DCF was produced using a WACC of 10.83% and a growth rate of 2.40% at which enterprise value is $12,155m. If the growth rate was to increase to 2.65% and WACC remained the same enterprise value would increase to $12,451m. If WACC increased to 11.83 per cent and growth remained at 2.40%, enterprise value would decrease to $10,854m.

Figure: Enterprise Sensitivity Analysis

Enterprise Sensitivity Analysis ($m)						
WACC						
12,155	1.90%	2.15%	2.40%	2.65%	2.90%	GROWTH
8.83%	15005	15471	15973	16515	17104	
9.83%	13095	13439	13807	14200	14622	
10.83%	11613	11876	12155	12451	12766	
11.83%	10430	10636	10854	11084	11326	
12.83%	9463	9629	9803	9985	10176	

Equity Share Price Sensitivity Analysis

The figure given below demonstrates how changes in WACC and growth rates will impact equity share price. The DCF was produced using a WACC of 10.83% and a growth rate of 2.40% at which implied equity share price was per share. If WACC was to decrease to 9.83%

and growth was to also decrease to 1.90%, the sensitivity analysis shows that implied equity share price would fall to 62.10 per share. If WACC was to remain at 10.83% and growth was to increase 2.65%, implied equity share price would increase to 58.55 per share.

Figure: Equity Share Price Sensitivity Analysis

Equity Share Price Sensitivity Analysis ($m)						
WACC						
$ 56.91	1.90%	2.15%	2.40%	2.65%	2.90%	GROWTH
8.83%	72.66	75.23	78.00	81.00	84.25	
9.83%	62.10	64.01	66.04	68.21	70.54	
10.83%	53.92	55.37	56.91	58.55	60.29	
11.83%	47.38	48.52	49.72	50.99	52.33	
12.83%	42.04	42.96	43.92	44.92	45.98	

3.9 Relative Valuation

P/E

The P/E Multiple for InterContinental Hotels for FY2022 was calculated as 27.7 compared to the average of 34.96 of its competitive peers suggests that IHG is undervalued for this year. In FY2023 the multiple for IHG is 24.72 compared to the average of 15.77 of its peers, suggesting that Richemont is overvalued in this year.

Figure: P/E comps

P/E	31-Dec-22	31-Dec-23
Accor SA	17.08	18.5
Whitbread PLC	128.1	20.56
NH Hotel Group SA	12.91	14.54
Melia Hotels International	9.16	13.73
Dalata Hotel Group PLC	7.53	11.5
InterContinental Hotels Groups	27.7	24.72
Peers	34.96	15.77

EV/EBIT

The EV/EBIT Multiple for InterContinental Hotels for FY2022 was calculated as 17.82 compared to the average of 19.42 of its competitive peers suggests that IHG is undervalued. In FY2023 the multiple for IHG is 17.12 compared to the average of 15.48 of its peers, suggesting that Richemont is overvalued in this year.

Figure: EV/EBIT comps

EV/EBIT	31-Dec-22	31-Dec-23
Accor SA	16.06	15.58
Whitbread PLC	39.76	18.24
NH Hotel Group SA	13.58	13.48
Melia Hotels International	18.17	18.38
Dalata Hotel Group PLC	9.53	11.72
InterContinental Hotels Groups	17.82	17.12
Peers	19.42	15.48

EV/EBITDA

Since it ignores the effects of various capital structures across companies, the EV/EBITDA multiple is regarded as the main valuation reference (KPMG, 2015).

The EV/EBIT Multiple for InterContinental Hotels for FY2022 was calculated as 16.21 compared to the average of 9.70 of its competitive peers suggests that IHG is overvalued. In FY2023 the multiple for IHG is 15.86 compared to the average of 8.98 of its peers, suggesting that Richemont is overvalued in this year as well.

Figure: EV/EBITDA comps

EV/EBITDA	31-Dec-22	31-Dec-23
Accor SA	11.1	11.5
Whitbread PLC	16.29	10.04
NH Hotel Group SA	6.59	6.52
Melia Hotels International	7.52	8.53
Dalata Hotel Group PLC	6.99	8.33
InterContinental Hotels Groups	16.21	15.86
Peers	9.70	8.98

4.0 Conclusion

The purpose of this thesis was to value the equity of the British global hospitality business InterContinental Hotels Group, which has its headquarters in Windsor, England. The valuation was carried out using both extrinsic and intrinsic value metrics, including relative valuation comparables and the discounted cash flow model. Since the company is listed in both NYSE and LSE, the financial figures of NYSE are taken into consideration while making this report because IHG reported its financials in dollars.

IHG's enterprise value was $12,155 million, its equity value was $10,301 million, and its implied share price was $56.91, according to the DCF. Based on the indicated share price, IHG is trading 2.45% over its intrinsic value.

To verify the projected hypotheses, sensitivity analysis was carried out. The impact of growth and WACC variations on IHG's enterprise value and equity per share value was demonstrated by the sensitivity analysis.

The results of the DCF were then supported by a relative valuation using the P/E, EV/EBIT, and EV/EBITDA multiples, which showed that Richemont is overpriced in comparison to its rivals.

The research concluded with an investment recommendation of **SELL** based on the results of the relative valuation technique and the DCF approach to valuation.

Apart from the metrics given above, the other key factors that concluded to this recommendation are as follows:

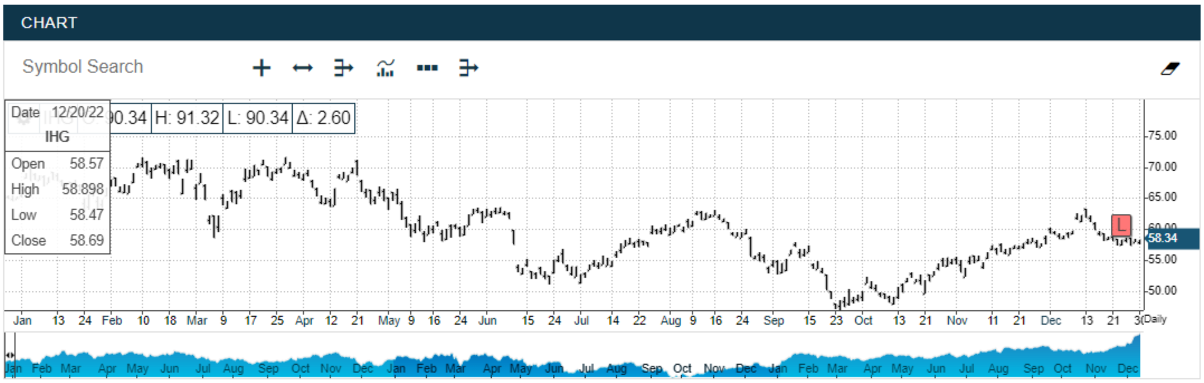
When looking at the historical current assets and liabilities of IHG, its looks as though the company is trying to balance out the two things to come to a favourable conclusion. There seems to be manipulation. By the seeing the income statement for the past year its visible that there is not much rise in the revenue, the sudden peak in 2022 revenue was due to the ease in covid restrictions.

To assume the sales annual growth rate of 10% for FY2023, the historical sales for the past 10 years expect FY2020 were taken into consideration. This is because for that year the sales were inflated due to ease in lockdown. The same trend wouldn't be possible after 2025 because the bubble of pent up demand for travel would burst and the other economic forces like inflation and recession would be more forceful in the economy.

Even though the estimated revenue is shown to be going up, its increasing with a decreasing rate from 2025 till 2027 in our DCF.

The other reason for overvaluation is that by looking at graph given below it seems as though the stock price will keep going up (see the relation between the stock price and volume of stocks in the graph) , but when one looks at company ratios like depreciation and net capex its evident that the company isn't in a very good state, since the net capex is more than the depreciation and it has high valuation multiples: In comparison to its worldwide hotel rivals, who trade in the mid-20x range, IHG trades at a very high trailing price-to-earnings ratio (P/E) of over 30x. It also has a price-to-book ratio that is rather high. Even the income statement and balance sheet of the company are not strong enough.

Figure: Stock Price Change and Volume change in stocks



Growth worries in important markets: Due to Covid lockdowns, investors are worried about IHG's revenue losses in important regions like Greater China. Future earnings and value multiples may be impacted by this.

Economic uncertainty: The hotel and tourist industry may be disproportionately affected by worries about a worldwide economic downturn, recession concerns, and a reduction in discretionary expenditure. The current share price might not completely take this into consideration.

Optimism for a pandemic recovery: Considering the larger economic obstacles, markets may have priced in too much of a chance for a pandemic reopening and travel resurgence in the near future. Should conditions worsen, this optimism premium may need to be reevaluated.

Currency headwinds: IHG's future foreign profits may be adversely affected by the US dollar's strength in relation to other currencies, such as the Euro, British Pound, and emerging market currencies.

In conclusion, despite IHG's well-known brand portfolio and extensive worldwide reach, current growth and macroeconomic concerns make it more difficult to justify the company's premium earnings multiples given the volatility of the hospitality sector. Hence, the recommendation is to **SELL.**

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6.0 Appendices

Appendix 1: DCF

Note units are in millions		Sales annual growth							
		10.00%	7.50%	8.00%	7.50%	6.00%			
Years	2022	2023	2024	2025	2026	2027	TV	**WACC Calculation**	**Value**
Sales	3,892	4,281	4,602	4,970	5,343	5,664		Risk-free (10-year Treasury) =	3.67%
EBIT		1,199	1,298	1,412	1,529	1,632		Equity Beta =	**1.12**
- Taxes		364	394	429	464	496		Equity risk premium =	8.09%
+ Depreciations&Provisions		150	152	154	155	153		Effective Tax rate	30.37%
								Debt Spread	2.00%
- Capex		107	104	99	94	153		Cost of Equity (re)	**12.75%**
- Changes Working Capital		29	24	28	28	24	Q3	Cost of Debt (rd)	**3.95%**
= Free Cash Flow (FCF) to the Firm (Q1)	**0**	**849**	**928**	**1,010**	**1,098**	**1,112**	**13,507**	Debt/(Debt+Equity)	21.80%
						WACC (Q2)	**10.83%**		
						Growth Rate	2.40%		
Discount Years		0	1	2	3	4	4		
Discount Factor		1.00	0.90	0.81	0.73	0.66	0.66		
Discounted Cash Flows		0	838	822	806	737	8,952		
Enterprise Value	Q4	12,155					**74%**		
Net Debt		**1,847**							
Minority Interest		**7**							
Financial Investments		**0**							
Equity Value (Q5)		**10,301**							
Number of Shares		**181**							
Value per share (Q6)		**$ 56.91**							
Market Price		**$ 58.34**							
% Price Potential		-2.45%	Upside (if positive); downside (if negative)						
Investment Decision (Q6)		SELL	If already Own Stock = NOT BUY						
			If don't own stock SHORT SELL in case you still don't have it)						
ASSUMPTIONS						**Trend Change**			
Effective Tax rate	**30.37%**								
EBIT Margin	**28.01%**	**28.21%**	**28.41%**	**28.61%**	**28.81%**	**0.20%**			
Depreciations&Provisions/Sales	**3.50%**	**3.30%**	**3.10%**	**2.90%**	**2.70%**	0.20%			
Net Capex / Sales	**2.50%**	**2.25%**	**2.00%**	**1.75%**	**1.50%**	**-0.25%**			
Chg. W.Capital: % Chg. Sales	**7.51%**								

Appendix 2: Income Statement

For the year ended 31 December 2022	Note	2022 $m	2021 $m	2020 $m
Revenue from fee business	3	**1,449**	1,153	823
Revenue from owned, leased and managed lease hotels	3	**394**	237	169
System Fund revenues		**1,217**	928	765
Reimbursement of costs		**832**	589	637
Total revenue	2	**3,892**	2,907	2,394
Cost of sales		**(648)**	(486)	(354)
System Fund expenses		**(1,322)**	(939)	(867)
Reimbursed costs		**(832)**	(589)	(637)
Administrative expenses		**(364)**	(300)	(267)
Share of losses of associates and joint ventures	2, 6	**(59)**	(8)	(14)
Other operating income		**29**	11	16
Depreciation and amortisation	2	**(68)**	(98)	(110)
Impairment loss on financial assets		**(5)**	–	(88)
Other net impairment reversals/(charges)	6	**5**	(4)	(226)
Operating profit/(loss)	2	**628**	494	(153)
Operating profit/(loss) analysed as:				
Operating profit before System Fund and exceptional items		**828**	534	219
System Fund		**(105)**	(11)	(102)
Operating exceptional items	6	**(95)**	(29)	(270)
		628	494	(153)
Financial income	7	**22**	8	4
Financial expenses	7	**(118)**	(147)	(144)
Fair value gains on contingent purchase consideration	24	**8**	6	13
Profit/(loss) before tax		**540**	361	(280)
Tax	8	**(164)**	(96)	20
Profit/(loss) for the year from continuing operations		**376**	265	(260)
Attributable to:				
Equity holders of the parent		**375**	266	(260)
Non-controlling interest		**1**	(1)	–
		376	265	(260)