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Marriott International, Inc: A Financial Analysis

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Marriott International, Inc: A Financial Analysis

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Executive Summary

Marriott International, Inc. (Marriott) is a multinational operating hospitality company that manages hotels and lodging facilities in over 122 countries and territories around the world (2016, 10-K). Founded by J. Willard Marriott in 1927, the company now is led by President and Chief Executive Officer Arne Sorenson. Marriott is headquartered in Bethesda, Maryland, in the Washington, DC metropolitan area.

On September 23, 2016, Marriott completed a merger with Starwood, creating the world's largest hotel company with more than 5,700 properties, 1.19 million rooms, and a new portfolio of 30 brands.

This report analyzes Marriott International, Inc. in three major aspects: the company's history and current situation, Marriott's principal competitors, and a financial projection and valuation. A detailed valuation model is provided, including historical data from 2012 to 2016, market statistics from 2012 to 2016, and pro forma forecasts from 2016 to 2020. These data provide a good perspective on Marriott's performance now and five years in the future.

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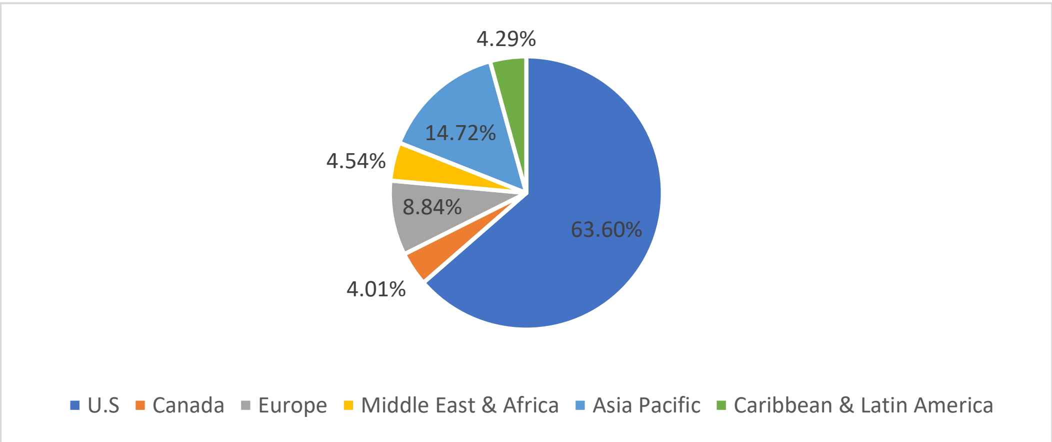
Introduction

This report was made with the intent to distribute work as a financial analysis in order to assist investors with the decision of whether to invest in the common stock of Marriott, Inc. The company's history, historic financial data, and future growth are included, which provide a clear picture of Marriott's business and value. All information is cited from the 2016 10-K, or company websites, unless otherwise stated.

Firm Characteristics

Marriott International, Inc. is an American multinational hotel chain company that manages and franchises a broad portfolio of hotels and related lodging facilities. Globally, the United States represents Marriott's most dominant region with 63.6% of sales ($10,858 million), followed by Asia Pacific ($2,513 million), Europe ($1509 million), Middle East & Africa ($775 million), Caribbean & Latin America ($733 million), and Canada ($685 million), respectively (Figure 1). The global hotel industry comprised approximately 15.9 million rooms. Marriott's market share is approximately 7.6%, and more than 95% of the company's operating profit is generated from asset-light franchise and management contracts.

Figure 1. Global Sales Percentage by Region



Marriott was founded by John Willard Marriott in Washington, D.C., in 1927, and the company had been led by his son, Bill Marriott, who has been both CEO and Chairman of Board for 40 years (from 1972-2012). Marriott has grown from a family business to a worldwide lodging company with more than 4,200 properties in over 80 countries and territories. On March 31, 2012, Arne M. Sorenson becomes President and CEO of Marriott, and Bill Marriott remains the Chairman of Board.

Marriott's stock (ticker MAR) trades on the National Association of Securities Dealers Automated Quotation (NASDAQ). As of March 13, 2017, there were 382 million shares of common stock outstanding held by 38,127 shareholders with around 39% insider ownership, 38.64% institutional ownership, and 12.11% of shares held by mutual funds. The aggregate market value of shares of common stock held by non-affiliates at June 30, 2016 was $12.42 billion.

Firm History

Marriott opened its first hotel, the Twin Bridges Marriott Motor Hotel, in Arlington, Virginia, in 1957. Which is Marriott International's longest continuously operating hotel and celebrated its 50 anniversary in 2009. The company's logo changed over time too, which is shown in Figure 2.

Figure 2. Logo of Marriott International, Inc. transformation from 1953 to 2016

In 1993, as the airline industry grew, Marriott started to locate new hotels near the airports. Over the decades, the company spent over $3 billion on developing hotel businesses, and the hotel rooms increased by an average 17% per year.

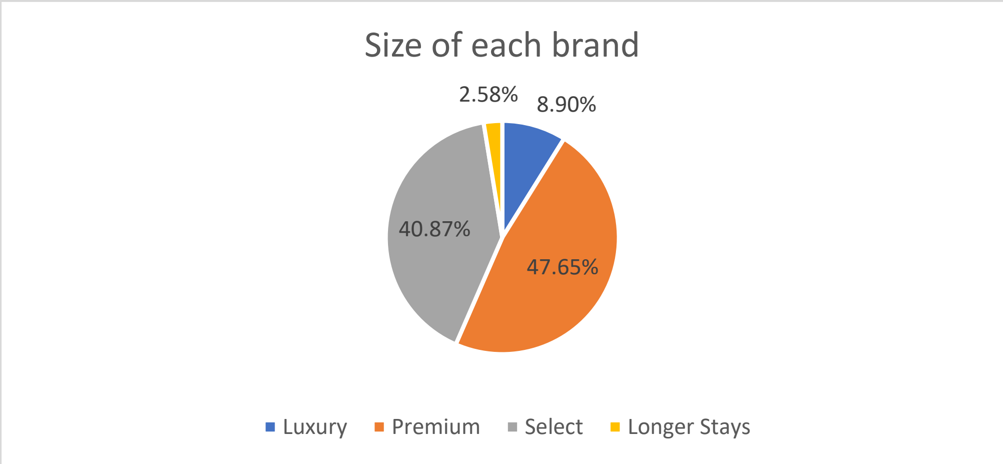
In 2010, Marriott announced the project to add more than 600 hotel properties by 2015. Some of the additions will be placed in emerging markets: India, where it plans to have 100 hotel properties, China, and Southeast Asia. The projection helped to create value and diversification to provide stably performance for the shareholders.

Acquisitions and Divestitures

Marriott International, Inc. has the largest enrollment frequent traveler programs in the lodging industry, with more than 100 million members. Marriott Rewards, The Ritz-Carlton Rewards, and Starwood Preferred Guest (SPG) have been offering members with unprecedented options, value, and experiences. The programs have been benefited from Starwood acquisition that SPG's expertise with affluent customers in the lifestyle segment and Marriott's long-standing relationship with frequent business travelers across a broad-brand portfolio.

Marriott provides a broad range of brands and properties, which the company classifies into the categorizes of Luxury, Premium, Select, and Longer Stays. The variety provides clients and travel agents a range of choices for travel needs. Luxury is the top brand series, and followed by Premium, Select, and Longer Stays. The Figure 3 is created to show the various size of the sub-categories. Those different level of brands can serve to different grades and providing them to guests according to customers' different consuming capacities.

Figure 3. Various size of sub-categories



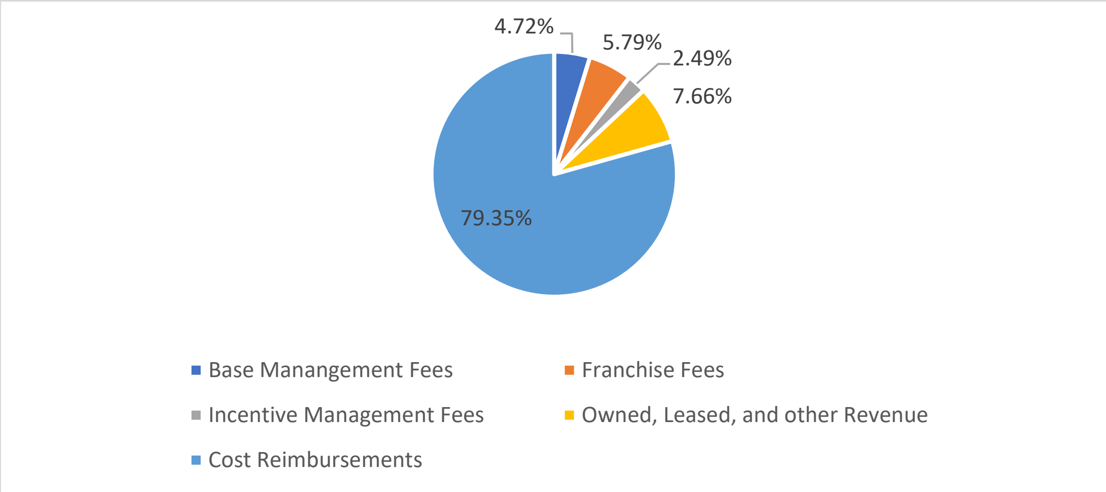
Marriott has been benefited tremendously from the acquisitions of Starwood, which gave Marriott a larger non-US presence, approximately 75% Starwood's revenues are from outside of US market.

Marriott's prospects are bright, it announced to grow its system by 300,000 rooms and increase earnings per share by 17% to 21% compounded and return approximately $9 billion to shareholders in next three years.

General Operations

At the end of 2016, Marriott operated over 2,000 properties with more than 550,000 rooms under long-term management agreements with property owners. Marriott generally is responsible for hiring, training, and supervising the managers and employees, which are needed to operate the facilities for purchasing supplies, and owners are required to reimburse Marriott for those costs. Marriott receives a management fee from the management agreements, which is composed as base management fee (Reimbursement costs are included).

Figure 4. Percentage of Net Sales of 2016



At the end of 2016, Marriott’s annual revenue consisted of Cost Reimbursements ($13,546 million), Owned, Leased, and other revenue ($1,307 million), Franchise fees ($988 million), Base Management fees ($806 million), and Intensive Management fees ($425 million). The Figure 4 is created to show the percentage of net sales of 2016. Marriott relied heavily on the company’s existing brands, especially, the top brands series in Luxury. They have been highly competitive in the world market, which located in over 122 countries (more than 1500 properties and 380,000 rooms). In United States, Marriott has over 4,400 properties and 780,000 rooms, which located in 50 different states. Marriott’s occupancy rates of the rooms are 75.8%, 65.3%, 71.8%, 64.6%, 75.2%, in North America, Caribbean and Latin America, Europe, Middle East and Africa, Asia, in 2016, respectively. The overall worldwide occupancy rate of the rooms is 72.5% in 2016. This could help Marriott to earn more confidence from shareholders or the potential ones. (a step ahead to its rivals).

Key Executives

On March 31, 2012, J.W. Marriott stepped down as Chief Executive Officer (CEO) of Marriott International, Inc, which was led by him for nearly 60 years. On the same day, Arne

Sorenson became the president and CEO of Marriott, who was the third CEO of the company, and he was also the first person outside the Marriott family to lead the firm.

The current Board of Directors is composed of 12 members; four of them are female and eight of them are male. Eight of them have been working for Marriott International, Inc. for more than 20 years, and they have devoted half of their lives to develop the company and maximize the shareholders' wealth.

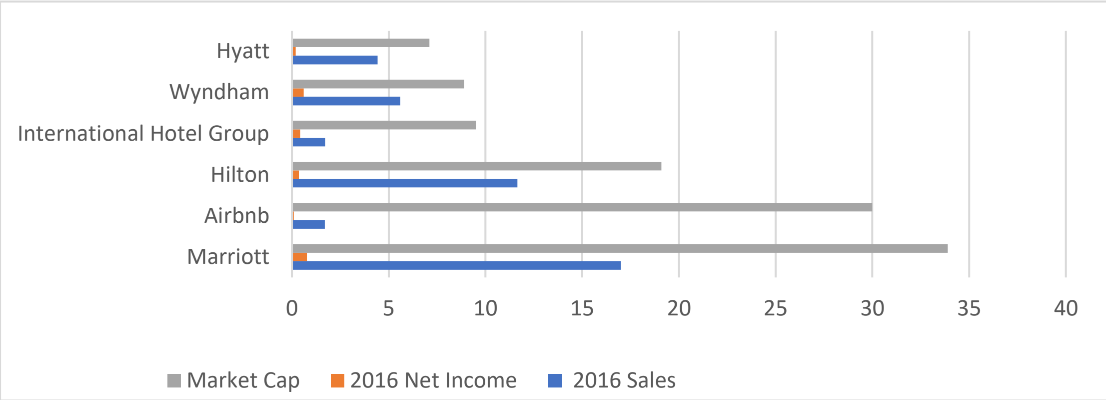
Main Competitors

The hospitality industry is highly competitive, which can affect Marriott International, Inc.'s ability to compete successfully with other hotel properties, home, and apartment sharing services for the customers. Marriott has been facing a number of competitors, which have strong brands and customer appeal that including Hilton, International Hotel Group, Hyatt, Wyndham, Accor, Choice, Carlson, Rezidor, Best Western, and La Quinta. In both the U.S market and the world market, Hilton, International Hotel Group, Wyndham, and Hyatt are the main competitors. Some of them have more properties than Marriott (5,700 properties), such as Wyndham (8,140 properties) and Choice (6,553 properties).

Airbnb has been challenging not only Marriott, but the whole hospitality market. Airbnb is an online marketplace and hospitality service for people to lease or rent short-term lodging. Airbnb has been expanding quicker than Marriott in last the 10 years.

Figure 5 shows the market capitalization in the hospitality industry, which includes sales, net income, and the main competitors.

Figure 5. Main Competitors-Hospitality Industry (All dollar figures are in billions)



Strategy

Marriott focused on asset-light management and franchise strategy, which should keep generating significant profit returns to shareholders over time.

In 2016, Marriott's Loyalty Programs' members purchased more than 50% of the room reservations from the company. Therefore, the firm would keep enhancing the Loyalty Programs offerings, and strategically market to this large and growing customer base.

Marriott emphasized on long-term management contracts and franchising tends to provide more earnings in periods of economic softness, which would literally cost little or no investment to add new hotels to the company's system. This strategy could drive substantial growth for the company while minimizing financial leverage and risk in a cyclical industry, which could help the company to maximize and maintain the financial flexibility.

Porter's Five Forces Analysis

Porter's Five Forces Analysis is a tool which was created to analyze the level of industry competition. This tool is composed of the threat of new entrants, threat of substitutes, bargaining power of customers, bargaining power of suppliers, and industry rivalry.

Threat of New Entrants: Low

The hospitality industry is highly impacted by the travel and tourism trends, which are globally characterized by high capital costs. Because the hotel market is capital intensive, and for a large-scale entrance that buildings, decorations and furnishings, ICT infrastructure, and training employees are very expensive upfront investments. Marriott has been operating in mature markets, which are dominated by many large multinational hotel companies.

Threat of Substitutes: Moderate

The threat of the substitutes in the hospitality industry is relatively low, especially in the major cities. Most of Marriott's hotels are luxury and above the average price level that company's target consumers are middle-class or above. Even Airbnb would not impact Marriott too much at this point of time.

Bargaining Power of Customers: High

Tourists no longer require the assistance from travel agents because they can find business websites that will negotiate or discover the bargains for them; therefore, the bargaining power of clients has increased. The switching cost is quite low to the travelers. Company loyalty is weakened, and the power of consumers can create margin pressure for the company.

Bargaining Power of Suppliers: Low

The suppliers in hospitality industry are property owners and employees. Bargaining power of property owners to Marriott is relatively low because over 75% of the properties that Marriott operated last year are owned by itself.

Industry Rivalry: High

Marriott has been competing in a highly competitive industry, and the industry rivalry is high. Because the cost of product differentiation and switching, costs are quite low. Marriott has many traditional competitors, such as Hilton and Hyatt, which always have the price matchings for the hotel rooms. People could always seek the best prices for the best experience, and the tendency is to decrease the prices to a competitive level.

Market Characteristics

According to lodging industry data, there are approximately 1040 lodging management companies in the U.S, and 20 of them that operate more than 100 properties. Marriott just became the world's largest hotel chain company at the end of 2016 with a $34 billion market capitalization. (Figure 5 shows market cap of hospitality market.) However, this did not make the hospitality industry less competitive, and the company needed to remain more rational and innovative in the market that contains many competitors.

Fixed costs are not an issue or a risk to Marriott at this point of time that the depreciation and amortization are 0.98% ($167 million) out of the total revenue ($17.072 billion) in 2016. Hilton's fixed costs are relative high that is 5.88% ($686 million) out of total revenue ($11.663 billion) in 2016. Because Marriott has been focused on assets-light management and franchises strategy, so the franchisers would deal with the properties owners.

The demand for hotel rooms decreased significantly due to the recession of 2008. Especially in 2009 that a lot of hotel companies could barely survive. The unemployment rate was between 8.5% to 10% in 2009. The weak economic conditions seen all over the world for years changed, and many countries experienced improving economic conditions since 2008.

The changes in currency values and oil prices, potentially disrupt the economy of the United States that could result from the new U.S. administration’s policies, in such regions as trade, immigration, health care, and some other related issues. Political instability in some countries and the uncertainties over how long any of those conditions would continue, could have a negative effect on the lodging industry. Now Marriott is focusing more on Asia, Africa, and Middle East in these days. In China, Marriott plans to open new hotels in faster pace than the rival hotel chains. The economies of China and India are somewhat slowing down, but the travel and tourism industry is still growing in the positive speed and Marriott International wants to capture the growing market travel and tourism by adding new rooms.

Industry Characteristics

Risk Factors Related to Marriott International, Inc.

Marriott International, Inc. operates in a highly competitive industry, which contained tremendous uncertainties, risks, and competitors. Economic uncertainty could keep impacting all the hotel chain companies’ results and growth, and Marriott has been experiencing weak demand for its hotel rooms in some markets.

Marriott’s operations are subject to global, regional, and national conditions that its business conducts on a global platform, which meant the changes in how global and regional economies impact its activities. In recent years, decrease in travel due to weak economic conditions and the heightened travel security measures that result from the threat of further terrorism hurts the hotel business. The future performance of Marriott could be similarly impacted by the economic conditions in its operating regions, the resulting unknown pace of business travel, future incidents, or any changes in those areas.

A failure to keep pace with developments in technology could cause Marriott to lose its competitive position. The hospitality industry needed the use of sophisticated technology and systems, which includes the use for its reservation, revenue management, property management system, Marriott's Loyalty programs, and technologies it made available to customers. Those technologies and systems needed to be updated or replaced with more advanced systems on a regular basis. The company's business would suffer if it cannot follow as quickly as the competitors.

The last set of risk factors relates to Marriott's need to attract and retain talented associates. The company has been competing both inside and outside of hospitality industry for talented personnel. The company may face increased associated turnover, decreased customer satisfaction, low morale, or internal control failures if it cannot hire, train, and retain a sufficient number of talented employees. Insufficient numbers of talented associates or a shortage of available willing workers at a relative low wage, which is one of the ways to lower the operating cost, could restrict the company's ability to grow and expand its business.

In 2012, Arne Sorenson became the president and CEO of Marriott, it is a clear sign that Marriott increased attention to these threats. Because those threats are the problems from both global and U.S. market, and Sorenson had been one of the executives of Marriott in European Market for years.

Summary of Significant Accounting Policies

Marriott International, Inc. and Hilton Hotels & Resorts are two American multinational diversified hospitality companies, and they are also two of the world's largest hotel-chain companies. Both Marriott's and Hilton's consolidated financial statements have been prepared according to U.S Generally Accepted Accounting Principles (GAAP). Marriott and Hilton expressed an unqualified opinion on their fiscal year 2016 10-K by Ernst & Young.

Goodwill and Intangible Assets

Marriott capitalized both direct and incremental costs when the company decided to acquire management, franchise, and license agreements. Marriott amortized the costs on a straight-line basis on the initial term of the agreements, over 15 to 30 years. Marriott has been assessed goodwill, intangibles, and long-lived assets for potential impairment at the end of every fiscal year. Marriott would first assess qualitative factors, which including macroeconomic, industry conditions, overall financial performance, and operation project. If the carrying value of goodwill, intangibles, and long-lived assets surpass the fair value, then the company recognizes an impairment loss in the amount of that excess. Marriott has no impairment charges on goodwill in past three years.

Hilton has been evaluated its goodwill and intangible assets with indefinite lives for impairment on an annual basis. There was no impairment charge for goodwill and intangible assets in 2016. Hilton capitalized direct, incremental management and franchise contract acquisition costs as finite-lived intangible assets and intangible assets with finite lives have been amortized by using the straight-line method, over 10 to 30 years.

Inventories

There is no information about inventory in the 10-K of Marriott. The inventory has always been zero on the balance sheet from 2013 to 2016.

Hilton generally valued at the lower of cost by using first-in, first-out (FIFO), or net realizable value.

Property, Plant, and Equipment

Properties and equipment are recorded at historical cost, which includes interest and real estate taxes that incur during development and construction. Marriott capitalized the cost of improvements that extend the useful life of properties and equipment, which includes structural costs, equipment, fixtures, floor, and wall coverings that most expenses are maintaining and repairing those items. The useful lives of those items are as following: equipment (15-20 years); fixtures, such as pendant lamp (3-5 years); floor (10-20 years); wall coverings (1-3 years); and properties (three to 40 years). The useful lives of each item may change by all kinds of situations, such as demolition by humans, or natural disasters.

Hilton's policies are very similar to Marriott. Both companies have been using the straight-line method to calculate depreciations, which including equipment properties, fixtures, floor, and wall coverings.

Foreign Transactions and Exchange

Marriott and Hilton are two of the world's largest hotel chain companies, and their hotels have been located all over the world. Therefore, they have been experiencing foreign transaction losses every year. Both companies have been attempting to mitigate the currency risk by getting into foreign hedging agreements with international financial institutions. However, those hedging agreements do not always cover all the currencies, which cannot eliminate foreign currency risk completely. They suffer when they translate the local currency to the U.S. dollar.

Revenue Recognition

Marriott's revenue is composed of base management fee, incentive management fee, franchise fees, revenue from lodging properties that it owns or leases, and cost reimbursements. Marriott recognized base management and incentive management fees when it earned under the contracts. Marriott would receive an application fee at hotel opening, and recognized franchise fee in each accounting period. Marriott recognized room sales and revenues from the guests when rooms are taken and services are provided. Marriott recognized cost reimbursement from managed, franchised, and licensed properties when the related reimbursable costs incurred.

Both Marriott and Hilton are very much the same on revenue recognition. The New Accounting Standards ASU No. 2014-09 impacted both Marriott and Hilton so that they will no longer recognize franchise application fee at a hotel opening, but over the term of the franchise contract. They will recognize an incentive management fee once the uncertainty related to these variable fees has been reduced rather than they have been doing currently. Both companies would be impacted by the New Accounting Standards in the future financial performance.

Quality of Earnings

The quality of earnings would be considered high if a company reports an increase in profits due to improved sales or cost reductions. The quality of earnings could be impacted by high inflation, aggressive use of accounting rules, or sale of assets for a gain. The quality of earnings of a company could directly impact the investors to make a financial decision about whether not to invest. As it shows in Figure 6, Marriott's average quality of earnings ratio is

1.77 over the five years, which indicates a high quality of earnings. Hilton's average quality of earnings over the five years is also very high at 2.87.

Figure 6. Quality of Earnings From 2012 to 2016 (operating cash flow/net income)

Quality-of-earnings	2012	2013	2014	2015	2016	5-Year Average
Marriott	1.73	1.82	1.62	1.66	2.03	1.77
Hilton	3.09	4.57	2.01	0.98	3.71	2.87

Financial Performance, Analysis, and Ratio

Profitability, Revenue, and Profit Margin Growth

Under Sorenson's leadership, Marriott's annual sales growth increased at least 5% per year and average sales growth rate was 9.7% from 2012 to 2016. In 2016, the annual sales increased approximately 18% when compared to FY2015. From 2013 to 2016, Marriott accomplished the increases in return on assets (9.21%, 10.97%, 14.12, and 3.23%), return on common equity (9.55%, 10.62%, 11.16%, and 6.34%), and gross profit margin (13.41%, 13.18%, 13.7%, and 14.4%). Furthermore, total asset turnover and operating asset turnover decreased from 2.38 to 0.71 and 4.39 to 2.81, respectively, in 2016.

From 2013 to 2016, Hilton accomplished the increases in return on assets (1.73%, 2.61%, 5.51%, and 1.39), return on common equity (10.54%, 14.35%, 23.66%, and 6.17%), and gross profit margin (11.32%, 15.93%, 15.66%, 15.88%). Furthermore, operating asset turnover decreased from 0.9 to 0.87 in 2016. Both Marriott and Hilton have large asset bases, which meant they would slowly turnover their assets through sales. Marriott has higher total asset turnover rate than Hilton (0.71 vs 0.44), which meant Marriott has been operating more efficiently than Hilton.

Cost Control

Marriott has always been striving to reduce the operating costs and improve efficiency since the demand of hotel rooms decreased significantly in 2009. From 2012 to 2016, Marriott's cost of goods sold (COGS) has been at least 86% of sales per year. Since reimbursement costs are the largest part revenue of annual sales (approximately 79%), there is not much the company could do to reduce the COGS. Marriott reduced approximately 3.8% operating cost in 2015, and it increased 11% in 2016. Marriott's average interest expense as a percentage of sales number was 1.09% over five years. Marriott's financial goals included diversifying its financial resource, reducing its working capital, and optimizing the mix and maturity of the long-term debt. Marriott's long-term debt has an average interest rate of 2.9%, and average maturity of approximately 5.9 years at the end of 2016.

From 2012 to 2016, Hilton's COGS has been decreased from roughly 88% to 84%, and this would help the company to increase both the margin profit and net income. Hilton has been holding 5% interest expense in 2016. As it shows above, Hilton has less COGS (84% vs 86%), and Marriott has lower rate on interest expense (1.09% vs 5%). Overall, Marriott has a better cost control.

Liquidity

We would have to measure current ratio and acid ratio, which could tell me the ability of a company to pay its current liabilities when they come due with only quick assets. Marriott's current ratio and acid ratio are 0.65 and 0.5, respectively, in 2016. Hilton's current ratio and acid ratio are 1.33 and 1, respectively, in 2016. The cash flow coverage ratios of Marriott and Hilton are 0.45 and 1.66, respectively, in 2016. Here, we can see Hilton held a much healthier operating cash flow, and Marriott is short of cash.

Solvency

Through solvency, we needed to find out a company's ability to pay off its long-term obligations to creditors, bondholders, and banks. Time interest earned ratio is a good tool to use here, which could measure the proportionate amount of income that can be used to cover interest expenses in the future. The time interest earned ratios of Marriott and Hilton are 6.06 and 3.14 respectively, in 2016. Which meant both companies were less risk and the banks would not have a problem accepting their loans. So, Marriott is more efficient on paying the interest expenses of its long-term debts and the company's income is 6.06 times greater than its annual interest expense.

Turnover

When we consider investing in a company, we want to know how well this company can collect cash from its customers. Days sales outstanding calculation is a good tool to use here, which can measure the number of days it takes a company to collect cash from its credit sales. Marriott's days sales outstanding were 27.79 and 36.24, respectively, in 2015, and 2016. So, It took approximately 36 days for Marriott to collect cash from clients, which increased approximately 9 days when compared to 2015. Hilton's days sales outstanding were 29.34 and 32.58, respectively, in 2015, and 2016. Hilton's inventory turnover ratios were 21.51 and 18.13, respectively, in 2015, and 2016. So, Hilton's collecting period increased approximately 3 days (From 29.34 to 32.58) from 2015 to 2016. Hilton's inventory turnover decreased 3 days (From 21.51 to 18.13), which meant the company was more efficient at selling its inventories. If a company cannot sell its inventories efficiently, then storage costs and holdings costs will incur. Since Marriott does not hold any inventory, there is no inventory turnover ratio for it. Hilton is more efficient on collecting cash from its credit sales than Marriott (32.58 vs 36.24).

Leverage and Capital Structure

Marriott has been holding a capital structure of 69% of debt and 31% of equity (market value), which meant the company is less leveraged. Hilton's debt ratio is much higher that is approximately 78%, and the company is still able to pay off its liabilities with the assets. Another tool to measure the leverage is the debt to equity ratio, which comparing a company's total debt to total equity that would show us the percentage of company financing that comes from creditors and investors. The debt to equity ratio of Marriott and Hilton are 351% and 348%, respectively, in 2016. Which meant both companies have been aggressive in financing its growth with debt. This is associated with high levels of risk, which would result in additional interest expense for both companies.

Cash Management

As we have always been hearing recently that "cash is king". Cash flow is always the most important part of a company, which could keep everything running. Both Marriott and Hilton have been doing an excellent job on the cash flow from operations. Marriott holds at least $1 billion on cash flow from operations in past five years, and $1.6 billion in 2016. Hilton did a better job than Marriott, which is holds at least $1.3 billion on cash flow from operations in past four years. Both companies have been holding a healthy amount of cash flow, which allowed them to benefit the company by buying back share of common stocks or reinvestment.

Marriott has always been attempting to reduce the operating costs and improve efficiency since the recession 2008, and the company has been doing great that its operating cash flow increased from $1 billion to $1.6 billion (from 2012 to 2016). Marriott benefited the company by repurchasing 8 million shares of common stocks for $583 million in 2016.

Valuation and Recommendation

A discounted free cash flow model was used to value the equity of Marriott. The calculation of the stock price is $90.56, compared to current price $82.68 (Marriott's 10-K), which means the stock price is undervalued. Marriott completed a $13.6 billion acquisition with Starwood, in 2016. The Starwood acquisition was an important international acquisition. And Marriott projected to repurchase approximately $8 billion share over next three years that is approximately 96 million shares (291 million shares in 2016), which meant the company thought its stock price is undervalued, or the stock price would worth way much more than the current price over next three years. Therefore, I would still suggest you buy the stock from Marriott.

Five years of pro forma balance sheets and income statements forecasting are provided for this analysis. Marriott added 68,000 rooms in the end of 2016, which would impact the company's sales in the following years. The company also projected to add 420,000 rooms in the following five years, including 34,000 rooms that already approved by signing the contracts. I used revenue to divide by total rooms in 2016 (17,072 million/ 1,190,604 rooms), and I got $14,339 per room yearly. I took $14,339 to multiply by the rooms which the firm projected to add in the future that gave me the growth rate of annual sales for the following five years. “With global travel estimated to increase at a 7 percent compounded rate over the next 10 years and international trips expected to top 1.8 billion by 2030, Marriott is well positioned to benefit given its strong global footprint now in 122 countries and territories and an unmatched portfolio of 30 lodging brands” (Marriott’s 10-K). Marriott may grow at least 5% on sales per year in the following five years. According to Marriott’s 10-K 2016, there is $1380 million free cash flow to the company, and the firm projected to have approximately $9 billion cash available for the shareholders over next three years. This information is supported by the Appendix C: Financial Valuation.

Marriott’s capital structure is set at 61% of debt and 39% of equity (both are Market value). The beta is 1.35. Since Marriott has been very aggressive in financing its growth with debt that is not difficult to tell why it has a high beta. Based on decreasing interest rates, in January 2017, 10-year treasury rate is 2.43% (interest-free rate). The market risk premium decreased from 5.5% to 5.3% (From 2015 to 2016). Based on these information, the calculation of the cost of equity is 10.02%, cost of debt is 2.85%, and the WACC is 7.55%.

The potential threat to the recommendation is the economic condition changes in the U.S., for the countries which Marriott operates, there are a lot of uncertainties, such as currencies risk, threat of terrorism, and so on. Due to these unpredictable risks, the company’s future financial statements may be impacted.

Sensitivity Analysis

Finally, we come to sensitivity analysis, and this in valuation long term growth rate, WACC, and operating expenses are the main inputs. This model is to estimate with possible variances of WACC and long-term growth rate in Figure 7. When one factor increases or decreases, the rest will change as well. Figure 7 provides a clear picture how the stock price moves when variables change over time. The highest possible share price for 2017 is $213.98, and lowest possible is $30.60.

Figure 7. Sensitivity Analysis due to long term growth rate and WACC assumptions

Equity value per share

		Sales growth rate (g):				
	$90.56	2.0%	2.5%	3.0%	3.5%	4.0%
	9.0%	30.60	32.70	35.15	38.05	41.53
WACC	8.0%	35.97	38.93	42.49	46.85	52.28
	7.55%	43.49	47.95	53.52	60.68	70.23
	6.0%	54.79	62.13	71.91	85.61	106.15
	5.0%	73.65	87.68	108.73	143.81	213.98

Appendix A: Marriott International, Inc.

Marriott - Income Statement

Amounts in millions; Years ended December 31.	**2012**	**2013**	**2014**	**2015**	**2016**
Net Sales	11,814	12,784	13,796	14,486	17,072
Less: Cost of Goods Sold	10,229	11,070	11,978	12,502	14,614
Gross Profit	1585	1714	1818	1984	2458
Other Operating Revenue	0	0	0	0	386
Less: Operating Expenses	646	726	659	634	704
Operating Income	939	988	1159	1350	1368
Less: Interest Expense	137	120	115	167	234
Other Income (Expenses)	46	29	44	72	50
Income before Taxes	848	897	1088	1255	1184
Less:Taxes-Related-to-Operations	278	271	335	396	404
Net Income (Loss)	570	626	753	859	780
Basic shares outstanding	323	305	290	267	291
Impact of dilutive securities	10	0	7	6	5
Diluted shares outstanding	333	305	297	273	296
Basic EPS	$1.77	$2.05	$2.60	$3.21	$2.68
Diluted EPS	**$1.72**	**$2.05**	**$2.54**	**$3.15**	**$2.64**
Year-end closing price	37.27	49.35	78.03	67.04	82.68
Growth rates & margins					
Revenue growth	NA	8.2%	7.9%	5.0%	17.9%
Gross profit as % of sales	13.4%	13.4%	13.2%	13.7%	14.4%
Operating expense ratio	5.5%	5.7%	4.8%	4.4%	4.1%
Tax rate	32.7%	30.2%	30.8%	31.6%	34.1%
Net profit margin	4.83%	4.9%	5.46%	5.93%	4.57%

Marriott – Balance Sheet

Amounts in millions; Years ended December 30.	**2012**	**2013**	**2014**	**2015**	**2016**
ASSETS					
Current Assets:					
Cash	858	126	104	96	858
Gross Receivables	1028	1081	1100	1103	1695
Inventories	10	0	0	0	0
Prepaid Expenses	57	67	64	77	168
Other Current Assets	292	629	653	108	650
Total Current Assets	1475	1903	1921	1384	3371
Long-Term Assets:					
Net Tangible (Fixed) Assets (other than construction in progress)	1539	1543	1460	1029	2335
Intangible Assets	1989	2005	2245	2394	16868
Investments	216	222	224	165	728
Other Nonoperating Assets	267	332	270	223	477
Other Operating Assets	856	789	745	887	361
Total Long-Term Assets	4867	4891	4944	4698	20769
Total Assets	6342	6794	6865	6082	24140
LIABILITIES AND EQUITY					
Current Liabilities:					
Accounts Payable	569	577	605	593	687
Short Term Loans	593	666	677	952	1866
Current Maturity of L.t. Debt	407	6	324	300	309
Other Current Liabilities	1204	1446	1454	1388	2285
Total Current Liabilities	2773	2653	3060	3233	5147
Long-Term Liabilities:					
Long-term Debt	2528	3147	3457	3807	8197
Deferred Liabilities	0	0	0	0	1020
Redeemable Preferred	1428	1475	1657	1622	2675
Other Long-term Liabilities	898	912	891	1010	1744
Total Long-term Liabilities	4854	5534	6005	6439	13636
Total Liabilities	7627	8209	9065	9672	18783
Shareholders' Equity:					
Preferred Equity	-7384	-7973	-9293	-11294	-6957
Common Equity-incl. Ret. Ern.	6094	6553	7088	7699	12309
Total Equity	-1290	-1420	-2205	-3595	5352
Total Liabilities and Equity	6337	6789	6860	6077	24135

Marriott – Vertical Analysis –Common Sized

INCOME STATEMENT	**2012**	**2013**	**2014**	**2015**	**2016**
Net Sales	100.00%	100.00%	100.00%	100.00%	100.00%
Less: Cost of Goods Sold	86.58%	86.59%	86.82%	86.30%	85.60%
Gross Profit	13.42%	13.41%	13.18%	13.70%	14.40%
Other Operating Revenue	0.00%	0.00%	0.00%	0.00%	-2.26%
Less: Operating Expenses	5.47%	5.68%	4.78%	4.38%	4.12%
Operating Income	7.95%	7.73%	8.40%	9.32%	8.01%
Less: Interest Expense	1.16%	0.94%	0.83%	1.15%	1.37%
Other Income (Expenses)	0.39%	0.23%	0.32%	0.50%	0.29%
Income before Taxes	7.18%	7.02%	7.89%	8.66%	6.94%
Less:Taxes-Related-to-Operations	2.35%	2.12%	2.43%	2.73%	2.37%
Net Income (Loss)	4.82%	4.90%	5.46%	5.93%	4.57%
BALANCE SHEET	**2012**	**2013**	**2014**	**2015**	**2016**
ASSETS					
Current Assets:					
Cash	1.39%	1.85%	1.51%	1.58%	3.55%
Gross Receivables	16.21%	15.91%	16.02%	18.14%	7.02%
Net Trade Receivables	16.21%	15.91%	16.02%	18.14%	7.02%
Inventories	0.16%	0.00%	0.00%	0.00%	0.00%
Prepaid Expenses	0.90%	0.99%	0.93%	1.27%	0.70%
Other Current Assets	4.60%	9.26%	9.51%	1.78%	2.69%
Total Current Assets	23.26%	28.01%	27.98%	22.76%	13.96%
Long-Term Assets:					
Net Tangible (Fixed) Assets (other than construction in progress)	24.27%	22.71%	21.27%	16.92%	9.67%
Intangible Assets	31.36%	29.51%	32.70%	39.36%	69.88%
Investments	3.41%	3.27%	3.26%	2.71%	3.02%
Other Nonoperating Assets	4.21%	4.89%	3.93%	3.67%	1.98%
Other Operating Assets	13.50%	11.61%	10.85%	14.58%	1.50%
Total Long-Term Assets	76.74%	71.99%	72.02%	77.24%	86.04%
Total Assets	100.00%	100.00%	100.00%	100.00%	100.00%

LIABILITIES AND EQUITY					
Current Liabilities:					
Accounts Payable	8.97%	8.20%	8.81%	9.75%	2.85%
Short Term Loans	9.35%	9.80%	9.86%	15.65%	7.73%
Current Maturity of L.t. Debt	6.42%	0.09%	4.72%	4.93%	1.28%
Other Current Liabilities	18.98%	21.28%	21.18%	22.82%	9.47%
Total Current Liabilities	43.72%	39.37%	44.57%	53.16%	21.32%
Long-Term Liabilities:					
Long-term Debt	39.86%	46.32%	50.36%	62.59%	33.96%
Deferred Liabilities	0.00%	0.00%	0.00%	0.00%	4.23%
Redeemable Preferred	22.52%	21.71%	24.14%	26.67%	11.08%
Other Long-term Liabilities	14.16%	13.42%	12.98%	16.61%	7.22%
Total Long-term Liabilities	76.54%	81.45%	87.47%	105.87%	56.49%
Total Liabilities	120.26%	120.83%	132.05%	159.03%	77.81%
Shareholders' Equity:					
Preferred Equity	-116.43%	-117.35%	-135.37%	-185.70%	-28.82%
Common Equity-incl. Ret. Ern.	96.09%	96.45%	103.25%	126.59%	50.99%
Total Equity	-20.34%	-20.90%	-32.12%	-59.11%	22.17%
Total Liabilities and Equity	99.92%	99.93%	99.93%	99.92%	99.98%

Marriott– Horizontal Analysis (Base year is 2012)

INCOME STATEMENT	**2012**	**2013**	**2014**	**2015**	**2016**
Net Sales	100.00%	108.21%	116.78%	122.62%	144.51%
Less: Cost of Goods Sold	100.00%	108.22%	117.10%	122.22%	142.87%
Gross Profit	100.00%	108.14%	114.70%	125.17%	155.08%
Other Operating Revenue					
Less: Operating Expenses	100.00%	112.38%	102.01%	98.14%	108.98%
Operating Income	100.00%	105.22%	123.43%	143.77%	145.69%
Less: Interest Expense	100.00%	87.59%	83.94%	121.90%	170.80%
Other Income (Expenses)	100.00%	63.04%	95.65%	156.52%	108.70%
Income before Taxes	100.00%	105.78%	128.30%	148.00%	139.62%
Less:Taxes Related to Operations	100.00%	97.48%	120.50%	142.45%	145.32%
Net Income (Loss)	100.00%	109.82%	132.11%	150.70%	136.84%
BALANCE SHEET	**2012**	**2013**	**2014**	**2015**	**2016**
ASSETS					
Current Assets:					
Cash	100.00%	143.18%	118.18%	109.09%	975.00%
Gross Receivables	100.00%	105.16%	107.00%	107.30%	164.88%
Net Trade Receivables	100.00%	105.16%	107.00%	107.30%	164.88%
Inventories	100.00%	0.00%	0.00%	0.00%	0.00%
Prepaid Expenses	100.00%	117.54%	112.28%	135.09%	294.74%
Other Current Assets	100.00%	215.41%	223.63%	36.99%	222.60%
Total Current Assets	100.00%	129.02%	130.24%	93.83%	228.54%
Long-Term Assets:					
Net Tangible (Fixed) Assets (other than construction in progress)	100.00%	100.26%	94.87%	66.86%	151.72%
Intangible Assets	100.00%	100.80%	112.87%	120.36%	848.06%
Investments	100.00%	102.78%	103.70%	76.39%	337.04%
Other Nonoperating Assets	100.00%	124.34%	101.12%	83.52%	178.65%
Other Operating Assets	100.00%	92.17%	87.03%	103.62%	42.17%
Total Long-Term Assets	100.00%	100.49%	101.58%	96.53%	426.73%
Total Assets	100.00%	107.13%	108.25%	95.90%	380.64%

LIABILITIES AND EQUITY					
Current Liabilities:					
Accounts Payable	100.00%	97.89%	106.33%	104.22%	120.74%
Short Term Loans	100.00%	112.31%	114.17%	160.54%	314.67%
Current Maturity of L.t. Debt	100.00%	1.47%	79.61%	73.71%	75.92%
Other Current Liabilities	100.00%	120.10%	120.76%	115.28%	189.78%
Total Current Liabilities	100.00%	96.47%	110.35%	116.59%	185.61%
Long-Term Liabilities:					
Long-term Debt	100.00%	124.49%	136.75%	150.59%	324.25%
Redeemable Preferred	100.00%	103.29%	116.04%	113.59%	187.32%
Other Long-term Liabilities	100.00%	101.56%	99.22%	112.47%	194.21%
Total Long-term Liabilities	100.00%	114.01%	123.71%	132.65%	280.92%
Total Liabilities	100.00%	107.63%	118.85%	126.81%	246.27%
Shareholders' Equity:					
Preferred Equity	100.00%	107.98%	125.85%	152.95%	94.22%
Common Equity-incl. Ret. Ern.	100.00%	107.53%	116.31%	126.34%	201.99%
Total Equity	100.00%	110.08%	170.93%	278.68%	-414.88%
Total Liabilities and Equity	100.00%	107.13%	108.25%	95.90%	380.86%

Marriott– Ratio Analysis

LIQUIDITY	2012	2013	2014	2015	2016
Days' Sales in Receivables	31.76	30.86	29.10	27.79	36.24
*Accounts-Receivable-Turnover	11.49	11.83	12.54	13.13	10.07
* A/R Turnover in Days	31.76	30.86	29.10	27.79	36.24
Days' Sales in Inventory	0.36	0.00	0.00	0.00	0.00
Working Capital	(1,298)	(772)	(1,139)	(1,849)	(1,776)
Current Ratio	0.53	0.71	0.63	0.43	0.65
Acid Test	0.40	0.45	0.39	0.37	0.50
Cash Ratio	0.03	0.05	0.03	0.03	0.17
* Sales to Working Capital	-9.10	-16.56	-12.11	-7.83	-9.61
Cash Flow/Cur. Mat. of Debt & NP	1.58	2.13	1.22	0.91	0.45
LONG-TERM-DEBT-PAYING-ABILITY	**2012**	**2013**	**2014**	**2015**	**2016**
Times Interest Earned	7.19	8.48	10.46	8.51	6.06
Fixed Charge Coverage	7.19	8.48	10.46	8.51	6.06
Debt Ratio	120.26%	120.83%	132.05%	159.03%	77.81%
Debt/Equity	-591.24%	-578.10%	-411.11%	-269.04%	350.95%
Debt to Tangible Net Worth	-232.60%	-239.68%	-203.71%	-161.50%	-163.10%
Cash Flow/Total Debt	20.74%	17.42%	13.50%	11.79%	5.27%
PROFITABILITY	**2012**	**2013**	**2014**	**2015**	**2016**
Net Profit Margin	4.82%	4.90%	5.46%	5.93%	4.57%
* Total Asset Turnover	1.86	1.88	2.01	2.38	0.71
* Return on Assets	8.99%	9.21%	10.97%	14.12%	3.23%
Operating Income Margin	7.95%	7.73%	8.40%	9.32%	8.01%
* Operating Asset Turnover	3.05	3.02	3.34	4.39	2.81
* Return on Operating Assets	24.26%	23.33%	28.09%	40.91%	22.55%
* Sales to Fixed Assets	7.68	8.29	9.45	14.08	7.31
* Return on Investment	18.58%	17.25%	21.91%	34.22%	4.92%
* Return on Total Equity	-44.19%	-44.08%	-34.15%	-23.89%	14.57%
* Return on Common Equity	9.35%	9.55%	10.62%	11.16%	6.34%
Gross Profit Margin	13.42%	13.41%	13.18%	13.70%	14.40%

INVESTOR ANALYSIS	**2012**	**2013**	**2014**	**2015**	**2016**
Degree of Financial Leverage	1.16	1.13	1.11	1.13	1.20
Earnings per Share	1.77	2.05	2.60	3.21	2.68
Price/Earnings Ratio	11.98	12.04	11.82	6.63	11.69
Percentage of Earnings Retained	72.23%	68.82%	70.35%	70.47%	57.10%
Dividend Payout	27.68%	31.22%	29.62%	29.60%	42.91%
Dividend Yield	2.31%	2.59%	2.51%	4.46%	3.67%
Book Value per Share	18.87	21.49	24.44	28.84	42.30
Oper. Cash Flow per Share	4.75	4.57	4.12	4.18	3.34
Oper. Cash Flow/Cash Dividends	10.00	7.33	5.48	4.49	2.96
Year-end Market Price	21.21	24.68	30.72	21.28	31.32
Growth analysis	**2012**	**2013**	**2014**	**2015**	**2016**
Gross profit growth	NA	8.14%	6.07%	9.13%	23.89%
Sales Growth	NA	8.21%	7.92%	5.00%	17.85%
Net income Growth	NA	9.63%	20.29%	14.08%	-9.20%
Operating profit margin	7.96%	7.73%	8.40%	9.32%	8.01%
Cost control					
Growth in operating expense	NA	12.56%	-9.23%	-3.79%	71.92%
COGS/Sales	-86.58%	-86.59%	-86.82%	-86.30%	-85.60%
Interest Expense/Sales	-1.16%	-0.94%	-0.83%	-1.15%	-1.37%

Appendix B: Hilton Hotels & Resorts

Hilton – Income Statement

Amounts in millions; Years ended December 31.	**2012**	**2013**	**2014**	**2015**	**2016**
Net Sales	9276	9735	10502	11272	11663
Less: Cost of Goods Sold	8176	8633	8829	9507	9811
Gross Profit	1100	1102	1673	1765	1852
Other Operating Revenue	0	0	0	306	9
Less: Operating Expenses	0	0	0	0	0
Operating Income	1100	1102	1673	2071	1861
Less: Interest Expense	569	620	618	575	587
Other Income (Expenses)	15	9	10	19	12
Gain (Loss)	27	207	82	-19	-31
Income before Taxes	573	698	1147	1496	1255
Less:Taxes-Related-to-Operations	214	238	465	80	891
Net Income (Loss)	359	460	682	1416	364

Hilton – Balance Sheet

Amounts in millions; Years ended December 31.	2012	2013	2014	2015	2016
Amounts in millions;					
Years ended December 31.					
Cash	755	594	566	609	1418
Marketable Securities	550	266	202	247	266
Gross Receivables	758	763	844	906	1041
Less: Allowance for Bad Debts	39	32	0	30	36
Net Trade Receivables	719	731	844	876	1005
Inventories	415	396	404	442	541
Prepaid Expenses	153	148	133	147	137
Other Current Assets	235	248	350	264	190
Total Current Assets	2827	2383	2499	2585	3557
Long-Term Assets:					
Net Tangible (Fixed) Assets (other than construction in progress)	9197	9058	9026	9119	8930
Intangible Assets	13570	13436	13097	12541	12196
Investments	291	260	170	138	114
Other Nonoperating Assets	366	596	511	446	451
Other Operating Assets	815	829	822	887	963
Total Long-Term Assets	24239	24179	23626	23131	22654
Total Assets	27066	26562	26125	25716	26211
LIABILITIES-AND-EQUITY:					
Current Liabilities:					
Accounts Payable	286	319	299	331	381
Short Term Loans	530	547	475	475	584
Current Maturity of L.t. Debt	427	63	158	261	231
Other Current Liabilities	1106	1213	1325	1400	1488
Total Current Liabilities	2349	2142	2257	2467	2684

Long-Term Liabilities:					
Long-term Debt	15183	11751	10803	9710	10020
Reserves	405	920	752	609	621
Deferred Liabilities	4948	5727	5711	4913	4639
Redeemable Preferred	503	597	720	784	889
Other Long-term Liabilities	1523	1149	1168	1282	1509
Total Long-term Liabilities	22562	20144	19154	17298	17678
Total Liabilities	24911	22286	21411	19765	20362
Shareholders' Equity:					
Preferred Equity	-146	-87	-38	-34	-50
Common Equity-incl. Ret. Ern.	2301	4363	4752	5985	5899
	-	-	-	-	-
Total Equity	2155	4276	4714	5951	5849
Total Liabilities and Equity	27066	26562	26125	25716	26211

Hilton – Vertical Analysis – Common Sized

INCOME STATEMENT	**2012**	**2013**	**2014**	**2015**	**2016**
Net Sales	100.00%	100.00%	100.00%	100.00%	100.00%
Less: Cost of Goods Sold	88.14%	88.68%	84.07%	84.34%	84.12%
Gross Profit	11.86%	11.32%	15.93%	15.66%	15.88%
Other Operating Revenue	0.00%	0.00%	0.00%	2.71%	0.08%
Less: Operating Expenses	0.00%	0.00%	0.00%	0.00%	0.00%
Operating Income	11.86%	11.32%	15.93%	18.37%	15.96%
Less: Interest Expense	6.13%	6.37%	5.88%	5.10%	5.03%
Other Income (Expenses)	0.16%	0.09%	0.10%	0.17%	0.10%
Unusual or Infreq. Item;					
Gain (Loss)	0.29%	2.13%	0.78%	-0.17%	-0.27%
Income before Taxes	6.18%	7.17%	10.92%	13.27%	10.76%
Less:Taxes Related to Operations	2.31%	2.44%	4.43%	0.71%	7.64%
Net Income (Loss)	3.87%	4.73%	6.49%	12.56%	3.12%
BALANCE SHEET	**2012**	**2013**	**2014**	**2015**	**2016**
ASSETS					
Current Assets:					
Cash	2.79%	2.24%	2.17%	2.37%	5.41%
Marketable Securities	2.03%	1.00%	0.77%	0.96%	1.01%
Gross Receivables	2.80%	2.87%	3.23%	3.52%	3.97%
Less: Allowance for Bad Debts	0.14%	0.12%	0.00%	0.12%	0.14%
Net Trade Receivables	2.66%	2.75%	3.23%	3.41%	3.83%
Inventories	1.53%	1.49%	1.55%	1.72%	2.06%
Prepaid Expenses	0.57%	0.56%	0.51%	0.57%	0.52%
Other Current Assets	0.87%	0.93%	1.34%	1.03%	0.72%
Total Current Assets	10.44%	8.97%	9.57%	10.05%	13.57%

Long-Term Assets:					
Net Tangible (Fixed) Assets (other than construction in progress)	33.98%	34.10%	34.55%	35.46%	34.07%
Intangible Assets	50.14%	50.58%	50.13%	48.77%	46.53%
Investments	1.08%	0.98%	0.65%	0.54%	0.43%
Other Nonoperating Assets	1.35%	2.24%	1.96%	1.73%	1.72%
Other Operating Assets	3.01%	3.12%	3.15%	3.45%	3.67%
Total Long-Term Assets	89.56%	91.03%	90.43%	89.95%	86.43%
Total Assets	100.00%	100.00%	100.00%	100.00%	100.00%
LIABILITIES AND EQUITY					
Current Liabilities:					
Accounts Payable	1.06%	1.20%	1.14%	1.29%	1.45%
Short Term Loans	1.96%	2.06%	1.82%	1.85%	2.23%
Current Maturity of L.t. Debt	1.58%	0.24%	0.60%	1.01%	0.88%
Other Current Liabilities	4.09%	4.57%	5.07%	5.44%	5.68%
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Total Current Liabilities	8.68%	8.06%	8.64%	9.59%	10.24%
Long-Term Liabilities:					
Long-term Debt	56.10%	44.24%	41.35%	37.76%	38.23%
Reserves	1.50%	3.46%	2.88%	2.37%	2.37%
Deferred Liabilities	18.28%	21.56%	21.86%	19.10%	17.70%
Redeemable Preferred	1.86%	2.25%	2.76%	3.05%	3.39%
Other Long-term Liabilities	5.63%	4.33%	4.47%	4.99%	5.76%
Total Long-term Liabilities	83.36%	75.84%	73.32%	67.27%	67.44%
Total Liabilities	92.04%	83.90%	81.96%	76.86%	77.68%
Shareholders' Equity:					
Preferred Equity	-0.54%	-0.33%	-0.15%	-0.13%	-0.19%
Common Equity-incl. Ret. Ern.	8.50%	16.43%	18.19%	23.27%	22.51%
Total Equity	7.96%	16.10%	18.04%	23.14%	22.32%
Total Liabilities and Equity	100.00%	100.00%	100.00%	100.00%	100.00%

Hilton – Horizontal Analysis (Base Year is 2012)

INCOME STATEMENT	**2012**	**2013**	**2014**	**2015**	**2016**
Net Sales	100.00%	104.95%	113.22%	121.52%	125.73%
Less: Cost of Goods Sold	100.00%	105.59%	107.99%	116.28%	120.00%
Gross Profit	100.00%	100.18%	152.09%	160.45%	168.36%
Other Operating Revenue					
Less: Operating Expenses					
Operating Income	100.00%	100.18%	152.09%	188.27%	169.18%
Less: Interest Expense	100.00%	108.96%	108.61%	101.05%	103.16%
Other Income (Expenses)	100.00%	60.00%	66.67%	126.67%	80.00%
Unusual or Infreq. Item;					
Gain (Loss)	100.00%	766.67%	303.70%	-70.37%	-114.81%
Income before Taxes	100.00%	121.82%	200.17%	261.08%	219.02%
Less:Taxes Related to Operations	100.00%	111.21%	217.29%	37.38%	416.36%
Net Income (Loss)	100.00%	128.13%	189.97%	394.43%	101.39%
BALANCE SHEET	**2012**	**2013**	**2014**	**2015**	**2016**
ASSETS					
Current Assets:					
Cash	100.00%	78.68%	74.97%	80.66%	187.81%
Marketable Securities	100.00%	48.36%	36.73%	44.91%	48.36%
Gross Receivables	100.00%	100.66%	111.35%	119.53%	137.34%
Less: Allowance for Bad Debts	100.00%	82.05%	0.00%	76.92%	92.31%
Net Trade Receivables	100.00%	101.67%	117.39%	121.84%	139.78%
Inventories	100.00%	95.42%	97.35%	106.51%	130.36%
Prepaid Expenses	100.00%	96.73%	86.93%	96.08%	89.54%
Other Current Assets	100.00%	105.53%	148.94%	112.34%	80.85%
Total Current Assets	100.00%	84.29%	88.40%	91.44%	125.82%

Long-Term Assets:					
Net Tangible (Fixed) Assets (other than construction in progress)	100.00%	98.49%	98.14%	99.15%	97.10%
Intangible Assets	100.00%	99.01%	96.51%	92.42%	89.87%
Investments	100.00%	89.35%	58.42%	47.42%	39.18%
Other Nonoperating Assets	100.00%	162.84%	139.62%	121.86%	123.22%
Other Operating Assets	100.00%	101.72%	100.86%	108.83%	118.16%
Total Long-Term Assets	100.00%	99.75%	97.47%	95.43%	93.46%
Total Assets	100.00%	98.14%	96.52%	95.01%	96.84%
LIABILITIES AND EQUITY					
Current Liabilities:					
Accounts Payable	100.00%	111.54%	104.55%	115.73%	133.22%
Short Term Loans	100.00%	103.21%	89.62%	89.62%	110.19%
Current Maturity of L.t. Debt	100.00%	14.75%	37.00%	61.12%	54.10%
Other Current Liabilities	100.00%	109.67%	119.80%	126.58%	134.54%
Total Current Liabilities	100.00%	91.19%	96.08%	105.02%	114.26%
Long-Term Liabilities:					
Long-term Debt	100.00%	77.40%	71.15%	63.95%	65.99%
Reserves	100.00%	227.16%	185.68%	150.37%	153.33%
Deferred Liabilities	100.00%	115.74%	115.42%	99.29%	93.76%
Noncontrolling Interest					
Redeemable Preferred	100.00%	118.69%	143.14%	155.86%	176.74%
Other Long-term Liabilities	100.00%	75.44%	76.69%	84.18%	99.08%
Total Long-term Liabilities	100.00%	89.28%	84.89%	76.67%	78.35%
Total Liabilities	100.00%	89.46%	85.95%	79.34%	81.74%
Shareholders' Equity:					
Preferred Equity	100.00%	59.59%	26.03%	23.29%	34.25%
Common Equity-incl. Ret. Ern.	100.00%	189.61%	206.52%	260.10%	256.37%
Total Equity	100.00%	198.42%	218.75%	276.15%	271.42%
Total Liabilities and Equity	100.00%	98.14%	96.52%	95.01%	96.84%

Hilton – Ratio Analysis

LIQUIDITY	2012	2013	2014	2015	2016
Days' Sales in Receivables	29.83	28.61	29.33	29.34	32.58
* Accounts Receivable Turnover	12.24	12.76	12.44	12.44	11.20
* A/R Turnover in Days	29.83	28.61	29.33	29.34	32.58
Days' Sales in Inventory	18.53	16.74	16.70	16.97	20.13
* Inventory Turnover	19.70	21.80	21.85	21.51	18.13
* Inventory Turnover in Days	18.53	16.74	16.70	16.97	20.13
* Operating Cycle	48.35	45.35	46.04	46.31	52.71
Working Capital	478	241	242	118	873
Current Ratio	1.20	1.11	1.11	1.05	1.33
Acid Test	0.86	0.74	0.71	0.70	1.00
Cash Ratio	0.56	0.40	0.34	0.35	0.63
* Sales to Working Capital	19.41	40.39	43.40	95.53	13.36
Cash Flow/Cur. Mat. of Debt & NP	1.16	3.44	2.16	1.89	1.66
LONG-TERM-DEBT-PAYING-ABILITY	**2012**	**2013**	**2014**	**2015**	**2016**
Times Interest Earned	2.01	2.13	2.86	3.60	3.14
Fixed Charge Coverage	2.01	2.13	2.86	3.60	3.14
Debt Ratio	92.04%	83.90%	81.96%	76.86%	77.68%
Debt/Equity	1155.96%	521.19%	454.20%	332.13%	348.13%
Debt to Tangible Net Worth	-218.23%	-243.30%	-255.41%	-299.92%	-320.81%
Cash Flow/Total Debt	4.46%	9.43%	6.38%	7.05%	6.63%
PROFITABILITY	**2012**	**2013**	**2014**	**2015**	**2016**
Net Profit Margin	3.87%	4.73%	6.49%	12.56%	3.12%
* Total Asset Turnover	0.34	0.37	0.40	0.44	0.44
* Return on Assets	1.33%	1.73%	2.61%	5.51%	1.39%
Operating Income Margin	11.86%	11.32%	15.93%	18.37%	15.96%
* Operating Asset Turnover	0.72	0.79	0.85	0.90	0.87
* Return on Operating Assets	8.57%	8.98%	13.55%	16.45%	13.84%
* Sales to Fixed Assets	1.01	1.07	1.16	1.24	1.31
* Return on Investment	2.89%	3.56%	4.40%	8.43%	2.27%
* Return on Total Equity	16.66%	10.76%	14.47%	23.79%	6.22%
* Return on Common Equity	15.60%	10.54%	14.35%	23.66%	6.17%
Gross Profit Margin	11.86%	11.32%	15.93%	15.66%	15.88%

INVESTOR ANALYSIS	**2012**	**2013**	**2014**	**2015**	**2016**
Degree of Financial Leverage	1.99	1.89	1.54	1.38	1.47
Earnings per Share	1.14	1.35	2.04	4.26	1.05
Price/Earnings Ratio	-	33.96	26.24	10.35	53.48
Percentage of Earnings Retained	100.00%	100.00%	86.53%	90.24%	24.08%
Dividend Payout	0.00%	0.00%	13.73%	9.86%	80.00%
Dividend Yield		0.00%	0.52%	0.95%	1.50%
Book Value per Share	7.50	14.17	14.49	18.19	17.93
Oper. Cash Flow per Share	3.62	6.82	4.15	4.22	4.09
Oper. Cash Flow/Cash Dividends			14.87	10.09	4.88
Year-end Market Price		45.85	53.53	44.10	56.15

Appendix C: Financial Valuation

Marriott - Projected Parameters

Ratios to calculate Operating profit	**2017**	**2018**	**2019**	**2020**	**2021**	**3-year average**
Sales Growth rate	12.77%	6.26%	5.89%	5.56%	5.27%	7.04%
COGS/Sales	86.00%	86.00%	86.00%	86.00%	86.00%	86.57%
Operating expense/Sales	3.50%	3.32%	3.09%	2.94%	2.82%	4.94%
Depreciation/Net PPE	16.17%	15.97%	16.99%	16.13%	16.13%	14.01%
Ratio to calculate Operating capital						
Cash/Sales	1.32%	1.25%	1.18%	1.12%	1.06%	0.80%
Inventory and others/Sales	0	0	0	0	0	0
Accounts Rec./Sales	10.14%	11.00%	11.97%	13.06%	14.30%	8.01%
Net PPE/Sales	4.88%	4.60%	4.34%	4.11%	3.91%	6.85%
Accts.Pay./Sales	3.75%	3.71%	3.68%	3.67%	3.66%	4.28%
Accruals and Others/Sales	0	0	0	0	0	0
Ratio to calculate operating taxes						
Tax Rate (Taxes/EBT)	31.9%	31.9%	31.9%	31.9%	31.9%	30.9%
Dividend and debt ratios						
Dividend policy; Groth rate	30.61%	20.31%	23.38%	21.05%	21.05%	24.77%
Long-term Debt / operating assets	61.34%	61.34%	61.34%	61.34%	61.34%	52.03%
Interest Rates						
Interest rate on debt	3.07%	3.10%	3.13%	3.15%	3.15%	3.84%

Marriott – Historical Analysis Data

Historical Free Cash Flow Calculations (dollar amounts in millions)	**2013**	**2014**	**2015**	
Operating income	988	1,159	1,350	
Net Operating Cash Flow	1140	1220	1430	
Capital Expenditures	465	476	426	
Free Cash Flow	736	813	1130	
Net Operating WC	-772	-1139	-1849	
Net Operating Long Term Assets	1612	1477	421	
Invested Capital	1560	1411	758	
Growth in FCF	33.33%	10.46%	38.99%	
ROIC	66.24%	51.08%	59.65%	
Calculation of Historical Ratios	**2013**	**2014**	**2015**	**3-year average**
Ratios to calculate operating profit				
Sales growth rate	8.21%	7.92%	5.00%	7.04%
COGS/Sales	86.59%	86.82%	86.30%	86.57%
Operating expenses/sales	-5.68%	-4.78%	-4.38%	-4.94%
Depreciation/Net PPE	14.03%	13.83%	14.16%	14.01%
Ratios to calculate operating capital				
Cash/Sales	0.99%	0.75%	0.66%	0.80%
Inventory and other/Sales	0.00%	0.00%	0.00%	0.00%
Accts. Rec./Sales	8.46%	7.97%	7.61%	8.01%
Net PPE/Sales	7.08%	6.65%	6.83%	6.85%
Accts. Pay/Sales	4.36%	4.39%	4.09%	4.28%
Accruals and other/ Sales	0.00%	0.00%	0.00%	0.00%
Ratios to calculate operating taxes				
Tax rate(Taxes/EBT)	30.21%	30.79%	31.55%	30.85%
Dvidend and debt ratios				
Dividend policy: growth rate	30.61%	20.31%	23.38%	24.77%
Long-term Debt / operating assets	47.20%	51.13%	57.75%	52.03%
Interest Rates				
Interest rate on debt	3.70%	3.70%	3.70%	3.70%

WACC Calculation

Cost of Capital Calculation:		
Proportions of Long-term Debt and Equity Financing	Value	Resource
Market price of stock as of Dec/30/2016	$82.68	Given, Per share
Common stock outstanding (millions)	291	Given, Marriott 10-K
Current market value of equity	$24,059.88	Price per share multiplied by common stock outstanding
Book value of long-term debt	$8,197	Given, Marriott 10-K
Current ratio of book value of debt to sum of book value of debt and market value of equity	31%	Calculated from above information
Target ratio of book value of debt to sum of book value of debt and market value of equity	10%	Judgment, based on historical ratios
Target ratio of market value of equity to sum of book value of debt and market value of equity	90%	One minus target ratio of book value of debt
Estimate Cost of Equity		
Beta	1.35	Personal Judgement based on historical data
Risk-free rate	2.43%	10-year Treasury Rate, Jan/1/2017
Market risk premium	5.3%	Personal judgment based on other scholars
Cost of equity	10.02%	Calculated from above information

Cost of Debt		
Interest rate on debt	2.85%	From FSM worksheet
Tax rate	31.9%	Five years average from 2012 to 2016
Cost of debt	2.85%	Calculated from above information
WACC=	7.55%	Calculated from above information

Pro-Forma Statements: Marriott International, Inc.

INCOME STATEMENT	Actual	Projected	Projected	Projected	Projected	Projected
Amounts in millions;	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Revenue	17,072	19,252	20,456	21,660	22,865	24,069
Cost of sales	14,614	16,556	17,592	18,628	19,664	20,700
Gross Profit	**2,458**	**2,695**	**2,864**	**3,032**	**3,201**	**3,370**
Operating and administrative expenses	704	674	679	670	672	680
Gain (Loss) on sale of property and equipment	(386)					
Operating profit (EBIT)	**1,368**	**2,022**	**2,185**	**2,362**	**2,529**	**2,690**
Interest income	50	48	49	53	54	51
Interest expense	234	264	280	297	313	330
EBIT	**1,184**	**1,803**	**1,953**	**2,118**	**2,270**	**2,411**
Taxes	404	576	623	675	724	769
Net income	**780**	**1,230**	**1,330**	**1,443**	**1,546**	**1,642**

BALANCE SHEET	Actual	Projected	Projected	Projected	Projected	Projected
	2016	**2017**	**2018**	**2019**	**2020**	**2021**
Cash & equivalents ST & LT market. securities	858	254	288	320	363	417
Accounts receivable	1,695	1,953	2,250	2,592	2,987	3,441
Inventory	0	0	0	0	0	0
Deferred tax assets	0	0	0	0	0	0
Other current assets (inc. non-trade receivables)	62	62	62	62	62	62
Property, plant & equipment	2,335	2,811	3,318	3,854	4,420	5,015
Prepaid income taxes	168	87	93	98	104	110
Other assets	19,022	19,022	19,022	19,022	19,022	19,022
Total assets	**24,140**	**24,189**	**25,032**	**25,948**	**26,958**	**28,067**

Accounts payable	687	722	759	797	838	881
Other current liabilities	4,150	4,358	4,575	4,804	5,044	5,297
Other liabilities	4,330	4,547	4,774	5,013	5,263	5,526
Provision for risk and charges	94	0	0	0	0	0
Long term debt	8,197	8,607	9,037	9,489	9,964	10,462
Deferred income tax liabilities	116	528	499	469	457	414
Total liabilities	**17,574**	**18,761**	**19,644**	**20,572**	**21,566**	**22,579**
Common stock	5,808	5,808	5,808	5,808	5,808	5,808
Retained earnings	6,501	6,927	7,388	7,888	8,423	8,992
Total equity	**5,352**	**5,778**	**6,239**	**6,739**	**7,274**	**7,843**
Total liability and equity	**22,926**	**24,539**	**25,883**	**27,311**	**28,840**	**30,422**

Valuation	Actual	Projected	Projected	Projected	Projected	Projected
Amounts in millions	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Free Cash flow	1,380	1,830	1,930	2,043	2,146	2,242
Growth rate in FCF		32.61%	5.46%	5.86%	5.04%	4.47%
WACC	7.55%					
Value of operation	36,122	40,734	43,282	45,831	48,379	50,928
Value of investment	728	728	728	728	728	728
Total Value of Firm	36,850	41,462	44,010	46,559	49,107	51,565
Value of all nonoperating liabilities	8,791	9,231	10,061	11,188	12,083	13,050
Value of equity	28,059	32,231	33,949	35,370	37,024	38,606
Number of Shares (Million)	291	260	229	197	197	197
Estimated price per share	$96.42	$123.97	$148.25	$179.55	$187.94	$195.97

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