STARBUCKS CORPORATION: A COMPREHENSIVE CASE ON FINANCIAL STATEMENT ANALYSIS, FORECASTING AND VALUATION

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ABSTRACT

Starbucks Corporation (NASDAQ: SBUX) is a comprehensive case on financial statement analysis, forecasting and valuation that requires students to access and utilize publicly available information. Marci Greenberg, a financial analyst with W.R. Hambrecht & Co., needs to provide a Buy/Sell rating for its institutional and retail clients based on her analysis. Part I of the case covers data issues and requires students to recast the financial statements into a standard template. Part II of the case requires students to identify the industry to which Starbucks belongs, examine the factors that affect Starbucks' profitability and conduct a ratio analysis to analyze its profitability. Part III of the case requires students to analyze the forecasting model used by an analyst in 2006 and suggest changes and updates for use in 2008. Part IV of the case deals with the valuation of Starbucks' equity using Discounted Cash Flow model and market-based valuation methods.

INTRODUCTION

Marci Greenberg has just secured her new position as Research Analyst at the San Francisco office of W.R. Hambrecht & Co. Her first assignment is to complete a full company report on Starbucks for Hambrecht's institutional and retail clients. Marci has access to the 10K statement filed with the SEC for the fiscal year ended September 28, 2008. In addition, she has access to another analyst's working papers from 2006, primarily, the details of the forecasting model that was used in completing the last full company report on Starbucks.

Although Marci has visited Starbucks stores scores of times over the last few years for her morning java and is generally aware of Starbucks' company history, she decided to do a quick search and prepare a short company background section for the company report.

COMPANY BACKGROUND

Starbucks Coffee Company was founded in 1971 by Gerald Baldwin, Gordon Bowker, and Zev Siegel with the opening of its first store in Seattle. Originally, the outlets only sold fresh-roasted, whole bean and grounded, coffee. In 1981, Howard Schultz, a salesman for a coffee appliance manufacturer, entranced by the Starbucks culture, joined the company. On a business trip to Italy in 1983, Schultz was exposed to the rich tradition of espresso and the neighborhood coffeehouses. He had a revelation that "people would like to experience the romance and mystery of coffee, firsthand in coffee bars." Mr. Schultz quit Starbucks and started his own company, Il Giornale, opening his first store on April 8, 1986. Next year, the original owners of Starbucks decided to sell the company and Mr. Schultz bought it for $3.8 million. In 1992, Starbucks completed its IPO, and its common stock began trading on the NASDAQ under the symbol SBUX. Since then, Starbucks has expanded rapidly both within the US and internationally. As of August 2009, Starbucks had over 9,000 company-operated stores and over 7,500 licensed stores and operated in all 50 states in the US as well as 43 countries outside the US. In addition to coffee and other blended beverages, Starbucks sells merchandise (such as, home espresso machines, coffee brewers and grinders, a line of premium chocolates, coffee mugs and other coffee accessories), fresh food (such as, baked pastries, sandwiches and salads) and quality entertainment (such as, music, films and books) at its stores. Further, it sells a line of global consumer products including Starbucks Frappuccino drinks, Starbucks DoubleShot espresso drinks, Tazo teas and other branded products at grocery and supermarket stores.

2008 PERFORMANCE AND THE YEAR AHEAD

Starbucks in 2008, after years of continuous growth, experienced slowing growth, store closures and shrinking margins. Throughout fiscal 2008, Starbucks experienced declining comparable store sales in its US stores, primarily due to lower customer traffic. For fiscal 2008, comparable store sales declined 5% in the US. Since the US segment represented 76% of total consolidated revenue, this decline had a significant negative effect on the company financial results for 2008.

Consolidated operating income was $503.9 million in fiscal 2008 compared with $1,053.9 in fiscal 2007. Operating margins declined from 11.2% in 2007 to 4.9% in 2008. Softness in US revenues along with higher cost of sales, including higher occupancy costs and store operating expenses were significant drivers in the margin decline. However, approximately 260 basis points of the decrease in operating margin was the result of restructuring charges, primarily related to significant store closures. EPS for fiscal 2008 was $0.43 compared to EPS of $0.87 earned in the prior year. Again, restructuring charges and costs associated with the execution of the transformation agenda impacted EPS by approximately $0.28 in fiscal 2008.

Management expects the company to face a very difficult economic environment throughout fiscal 2009, both in the US and internationally. It plans to close approximately 425 underperforming company-operated stores in the US market and restructure its Australia business by closing 61 company-operated stores. Starbucks plans to be more disciplined in its approach to new store openings in both company-operated and licensed markets. For 2009, in the US, it expects a negative of 25 net new stores, and internationally, it plans to open approximately 675 net new stores, two-thirds of which are expected to be licensed.

REQUIREMENTS

I. Data Issues

Firms use different formats and terminology for presenting their financial results. Analysts frequently recast the financial statements using a standard template, since it helps ensure that metrics used for financial analysis are calculated using consistent definitions across companies and across time.

a) Recast Starbucks' income statement and balance sheet for the fiscal year ended 2007 and 2008, using the formats provided [1]. The income statement is in a step-wise format that provides EBITDA, EBIT, EBT, and finally, Net Income Available to Common Shareholders.
b) Explain the data issues you encountered in entering the data from Starbucks' 10K into the template. Explain how you merged and mapped the various income statement and balance sheet items in the 10K to match the template.

II. Analysis

a) Industry Identification
   Determine the industry to which Starbucks belongs. List three companies that you believe are Starbucks' comparables. What are the justifications for your choices?

b) Firm-specific Analysis
   Examine some of the factors that affect Starbucks' profitability?
c) Ratio Analysis
   Calculate the rate of return on common shareholder's equity (ROE) for the past two years. Disaggregate ROE into its operating and nonoperating activities. What insights do you gain from the above analysis?

III. Preparing Pro-forma financial statements

a) Appendix 1 describes the sales forecasting model for Starbucks prepared by an analyst at Hambrecht & Co, in 2006 for the years 2007-2017. Describe and analyze the forecasting model to forecast sales revenue growth rates. Specifically, what are the implicit assumptions behind the forecasting model (without commenting on the specific assumptions for 2007-17)? Are these assumptions valid? How can the model be improved?
b) You are to use sales forecasting model prepared in 2006 to forecast, in 2008, Starbucks' sales growth rates for the period 2009-2019. Make any changes to the model that you believe is necessary given you have the actual data for two additional years (2007 and 2008).
c) Make suitable assumptions for the other variables for the years 2009-2019. What changes did you make and why?
d) Make appropriate terminal period assumptions. Provide justifications for these assumptions.
e) Prepare the forecasted Income Statement and Balance Sheet for Starbucks for the period 2009-2019.

IV. Valuation

a) Valuation Parameters
   i. Calculate the required rate of return on equity (cost of equity) for Starbucks.
   ii. Enter the Dilution factor for splits or stock dividends (if any) occurring since the latest fiscal yearend.
b) Free Cash Flow and the DCF model
   i. Calculate the Free Cash Flow to Common Equity using the appropriate formula
   ii. Calculate the Forecast Price/Share (as of August 31, 2009 - the date of the report) using the Discounted Cash Flow model
   iii. The stock price of Starbucks on August 31, 2009 was $18.99. Based on your analysis, what is your recommendation – Buy or Sell? Why?
c) Market-based Valuation
   Appendix 2 provides PE information for 2008 and 2009 for firms in the restaurant division. It also provides information on Starbucks historic PE for the last ten years and the S&P historic PE for the last five years.
   i. Based on the market information provided, determine the intrinsic price of Starbucks on August 31, 2009 assuming the EPS forecast for 2009 was $0.95/share. What is your recommendation – Buy or Sell? Why?
   ii. Calculate Starbucks' Relative PE ratio (= Current PE ratio (SBUX)/Current PE ratio (S&P500)) over the past five years. What are your conclusions and recommendations (Buy/Sell) based on this analysis? Explain.

IMPLEMENTATION GUIDANCE AND TEACHING NOTES

The Starbucks Corporation case focuses on all the major steps typically performed by an equity analyst involved in a "real-world" valuation exercise – industry analysis, firm-specific analysis, financial statement analysis, forecasting and valuation. It requires students to value a firm using publicly available information, primarily Starbucks' 10K
- (available at http://investor.starbucks.com/phoenix.zhtml?c=99518&p=irol-reportsAnnual)
The case is comprehensive and quite complex, especially the forecasting section, and is appropriate for pedagogical use at the following levels: i) Upper-division, undergraduate financial statement analysis course and ii) MBA, financial statement analysis or equity analysis. The case has been used by the authors at both undergraduate and graduate levels at two different universities for the past several years. The case has contributed up to 25% of the overall course grade and is best assigned as an end-of-the-semester group project.
The case is comprehensive and requires a substantial amount of time to complete it in its entirety. The instructor is advised to cover the basic theory relating to ratio analysis, forecasting and valuation before assigning the case. The section on forecasting is, perhaps, the most challenging and undergraduate students may require assistance to complete the detailed forecasting model. Alternatively, the forecasting model and the forecasted income statement and balance sheet could be provided and students could only be asked to calculate free cash flows and the value of equity. Further, students need to be comfortable using Excel spreadsheet software and must be able to create formulas and linkages. From our experience, most upper-division undergraduate and MBA students are reasonably proficient in Excel. Alternatively, instructors can use a valuation software package.
The case can be easily modularized to achieve specific learning objectives. Thus, the instructor can assign the questions in section Data Issues early in the semester after an introduction to the case. Questions in section Analysis can be assigned after the instructor has covered ratio analysis and questions in section Preparing pro forma financial statements can be assigned after covering the material on forecasting financial statements. Finally, the questions in section Valuation can be assigned after the material on calculating free cash flows, cost of capital, and discounted cash flow and market-based valuation methods have been covered. Another salient feature of the case is that it can be reused every year with the minimal amount of changes. The instructor can ask students to update the forecasting model based on the most current reported results and the rest of the case remains essentially unchanged.
Overall students have found the case to be a challenging, but rewarding exercise. They appreciate the fact that the case is based on publicly available information and realistically replicates the steps equity analysts follow in undertaking a detailed analysis of the firm and preparing a company report for their clients.

APPENDIX 1 – SALES FORECASTING MODEL FOR 2007-2017

1. The Sales Forecasting Model is based on Growth in New Stores (g) and Growth in Same Store Comparable Sales (c)
2. The forecast horizon is for 10 years. This is because detailed forecasts on stores and comparable sales were available from management for 2007, 2008-2010 and 2010-2015 (provided below in italics.)

   For 2007 –

   - *New store openings of 2,400 stores in fiscal 2007. 840 company-owned stores and 780 licensed locations in the US., 300 company-owned stores and 480 licensed stores in international markets*
   - *Same store sales +5.6%, driven by 4.1% transaction growth and 1.5% ticket value growth*

   For 2008-2010

- *New store openings at a steady rate such that at the end of fiscal year 2010 the US business should reach a goal of 15,000 stores and international, at close to 7,000 stores*
- *Same store sales at around 5% with transactions growth at about 4% and rising ticket value at about 1%*
- *By 2010, SBUX should reach a total sales level of about $15.9 billion.*

Between 2010 and 2015

- *By 2015 SBUX will reach the target of 30,000 stores overall. In this period international store growth eclipses US store growth. By 2015, the international segment grows to almost 50% of the global store base.*
- *Same store sales will settle somewhere between 3-5%*

Exhibit 6(a) provides the forecast of new store openings each year and Exhibit 6(b) provide the cumulative total number of stores based on the assumptions below.

3. Existing Store counts for 2006 was taken from the 2006 10-K report.
4. The store growth from 2008 to 2010 was converted to a steady rate of increase since the target number in 2010 was known. This growth rate was done separately for US and International stores. The percentage of company owned and licensed locations in US and International was kept at the same ratio as the previous year. The growth rates 'g' was calculated based on steady growth. From 2011 to 2015, the new rate was calculated for 'g' for US and International separately. Rate for US was zero as it was already at 15,000 stores total. Growth took place in International stores to reach from 7000 to 15,000 stores for a total of 30,000 stores worldwide. For 2016 and beyond, the growth rate in stores was zero since the company had reached its targets. Exhibit 6(c) provides details of the growth rates in the number of stores.
5. The percentage change for comparable store sales when provided by management was used. However from 2011 to 2015, the comparable store sales 'c' was reduced from 5% to a lower 3.75% over the five years since the company would start reaching slower growth of sales in later years due to competitive pressures. There were no growth numbers provided for Specialty Foodservice and CPG sales. Hence the growth numbers of the previous years were taken from the 2006 10K as a starting point. These growth numbers were then smoothly reduced to reach 3.75% (i.e. between 3 to 5%). Exhibit 6(d) provides details of the Same Store Sales Growth Rate
6. The percentage growth rate $(1+g)(1+c) - 1$ was then calculated from the above g and c numbers. For the Specialty Foods and CPG, since there were no 'g' store numbers, the growth was rolled over into the 'c' number. The growth rate for each reportable segment was calculated. We assume that the same store comparable growth rates also apply to the new store to help simplify the calculations. Hence we use this one equation itself. This then gave the line Sales Growth Rate – Total which was then also fed into the overall forecasting spreadsheet. Exhibit 5 (e) provides details of the percentage growth rate for sales

APPENDIX 2: SELECTED PE RATIOS

a) PE ratios of Starbucks' comparables

Growth Restaurants					Mature Restaurants			
Name	Ticker	PE' 08	PE '09		Name	Ticker	PE '08	PE '09
BJ's Restaurants	BJRI	27.5X	22.0X		Burger King	BKS	14.5X	12.4X
Buffalo Wild	BWLD	18.9X	15.7X		Jack in the Box	JACK	10.9X	9.5X
California Pizza Kitchen	CPKI	16.6X	16.6X		McDonalds	MCD	16.9X	16.0X
Cheesckae Factory	CAKE	10.6X	11.0X		Yum!	YUM	15.8X	14.4X
Chipotle	CMG	27.4X	26.2X		Mean		14.5X	13.0X
Cormick	MSSR	9.7X	8.8X					
Morton's	MRT	11.1X	12.3X					
P.F. Chang	PFCB	16.3X	14.4X					
Panera Bread	PNRA	25.1X	21.9X					
Red Robin	RRGB	9.6X	9.4X					
Ruth's Steakhouse	RUTH	4.8X	4.7X					
Sonic	SONC	12.6X	11.5X					
Texas	TXRH	14.9X	14.7X					
Mean PE		15.8X	14.5X					

b) PE ratios for Starbucks and S&P 500 for 2004-2008

Year	Starbucks PE	S&P 500 PE
2004	60.6	19
2005	46.1	17.3
2006	45.7	16.8
2007	23	16.5
2008	40.8	10.9

REFERENCES

[1] Lundholm, R., & Sloan, R., (2007), Equity Valuation and Analysis (2nd ed.). New York, NY: The McGraw-Hill Companies, Inc.