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Coca-Cola: Residual Income Valuation Exercise

Despite never having taught in her life, Amy Scharfinkel was about to become the teacher for a very demanding audience. It was early 2011. As lead analyst for large-cap investments, she had been requested to demonstrate the valuation of a large-cap firm using the so-called residual income (also known as the abnormal earnings) valuation approach. Her audience would include her boss, two of the firm's directors, two other senior analysts, as well as three major investors in the firm.

Coca-Cola¹

The Coca-Cola Company was the world's largest nonalcoholic beverage company, with one of the most recognized corporate logos in the world. The firm was incorporated in Delaware in 1919 as the successor to a Georgia corporation bearing the same name that had been organized in 1892.

The firm owned, licensed and marketed over 500 beverage brands in over 200 countries. Products were sold in two primary forms: beverage concentrates, also referred to as "beverage bases" or syrups; and finished sparkling and still beverages. The brands included sparkling beverages, enhanced waters, juices, ready-to-drink teas and coffees, and energy and sports drinks. Beyond the highly recognized company brand, the firm marketed four of the world's top five nonalcoholic sparkling beverage brands, including Diet Coke, Fanta, and Sprite.

The firm sold branded beverage products through a network of company-owned or controlled bottling and distribution operations, bottling partners, distributors, wholesales, and retailers—which collectively represented the world's largest beverage distribution system. Of the almost 55 billion beverage servings of all types consumed worldwide every day, beverages bearing trademarks owned by or licensed to Coca-Cola accounted for approximately 1.7 billion.

In 2010, the firm reported net revenues of \$35.1 billion. On a volume basis, this represented sales of approximately 25.5 billion cases of product, with sparkling beverages representing about 76 percent. The firm had increased net revenues by \$4.1 billion (or 13%) relative to the prior year, with the primary driver being the firm's acquisition of Coca-Cola Enterprises, one of their major bottlers.

¹ Material in this section is obtained from Coca-Cola 2010 10-K.

Valuation Exercise

Scharfinkel had been exposed to the residual income valuation approach during her MBA, and recalled the following list of the major steps that would be required:

- Obtain the balance sheet and income statement from the firm's 10-K
- Create a condensed balance sheet and income statement
- Derive the key assumptions for forecasting
- Calculate the valuation

Scharfinkel had already obtained the balance sheet and income statement for Coca-Cola (see **Exhibits 1a** and **1b**). She had also prepared a condensed balance sheet and income statement (see **Exhibits 2a** and **2b**), and derived a list of the key assumptions necessary to forecast the valuation (see **Exhibit 3**). To simplify the valuation exercise for her audience, she had only forecast two years and considered the period after that as the terminal value period.

Scharfinkel recognized that her audience would be unfamiliar with the steps used in the valuation process. As such, she would have to elaborate on the role each step played. This would include discussing the benefits of standardizing the firm's financial statements in a condensed form.

Then, she would have to perform the remaining step of calculating the valuation. Scharfinkel knew that to convince her audience on the merits of this calculation, she would also need to build up the pro forma balance sheets and income statements for the forecasted years. Further, since she knew that her audience would have likely used the more familiar discounted cash flow method, she would have to demonstrate how it mapped into the DCF approach.

Exhibit 1 Coca-Cola, Balance Sheet and Income Statement (in \$ millions)

BALANCE SHEET	December 31, 2009	December 31, 2010
ASSETS		
Cash and Marketable Securities	\$ 9,409	\$ 11,511
Accounts Receivable	3,758	4,430
Inventory	2,354	2,650
Other Currents Assets	2,030	2,988
TOTAL CURRENT ASSETS	17,551	21,579
Long-Term Tangible Assets	11,441	16,672
Long-Term Intangible Assets	12,828	26,909
Other Long-Term Assets	6,755	7,663
TOTAL LONG-TERM ASSETS	31,024	51,244
TOTAL ASSETS	\$ 48,575	\$ 72,823
LIABILITIES		
Accounts Payable	\$ 1,410	\$ 1,887
Short-Term Debt	6,800	9,376
Other Current Liabilities	5,511	7,245
TOTAL CURRENT LIABILITIES	13,721	18,508
Long-Term Debt	5,059	14,041
Deferred Taxes	1,484	4,163
Other Long-Term Liabilities	2,965	4,794
TOTAL LONG-TERM LIABILITIES	9,508	22,998
SHAREHOLDERS' EQUITY		
Minority Interest	547	314
Common Shareholders' Equity (2,303 and 2,292 million shares outstanding)	24,799	31,003
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$ 48,575	\$ 72,823

INCOME STATEMENT	For the years ended	December 31, 2008	December 31, 2009	December 31, 2010
SALES		\$ 31,944	\$ 30,006	\$ 35,200
Cost of Goods Sold		10,146	9,864	11,234
GROSS PROFIT		21,798	21,142	23,966
Selling, General, and Administrative		11,774	11,381	13,179
Other Operating Expenses		1,283	1,343	1,703
OPERATING INCOME		8,741	8,418	9,084
Other Income		53	92	5,312
Other Expense		(1,976)	(253)	(887)
Interest Income		333	249	317
Interest Expense		(438)	(341)	(608)
Minority Interest		0	(82)	(50)
PRETAX INCOME		6,713	8,083	13,168
Tax Expense		1,632	2,040	2,384
Unusual Gains, Net of Unusual Losses		726	781	1,025
NET INCOME		\$ 5,807	\$ 6,824	\$ 11,809

Source: Capital IQ.

Exhibit 2a Coca-Cola, Condensed Balance Sheet (in \$ millions)

	As of	January 1, 2009	January 1, 2010	January 1, 2011
Beginning Net Working Capital		\$ 740	\$ 1,221	\$ 936
Beginning Net Long-Term Assets		24,065	26,028	41,973
NET OPERATING ASSETS		24,805	27,249	42,909
Net Debt		4,333	2,450	11,906
Preferred Stock		0	0	0
Shareholders' Equity		20,472	24,799	31,003
NET CAPITAL		\$ 24,805	\$ 27,249	\$ 42,909

Exhibit 2b Coca-Cola, Condensed Income Statement (in \$ millions)

For the year ending	December 31, 2008	December 31, 2009	December 31, 2010
Sales	\$ 31,944	\$ 31,006	\$ 35,200
NOPAT	5,886	6,892	12,047
Net Interest Expense After Tax	79	69	238
NET INCOME	5,807	6,824	11,809
Less: Preferred Dividends	0	0	0
NET INCOME TO COMMON SHAREHOLDERS	\$ 5,807	\$ 6,824	\$ 11,809

Source: Casewriter.

Exhibit 3 Coca-Cola, Forecasting Assumptions**Panel A. Cost of Capital Parameters**

Market Risk Premium	5.0%
Risk-Free Rate	3.0%
Tax Rate	35.0%
Cost of Debt	4.5%
Common Equity Beta	0.6

Panel B. Future Performance Forecasts

	2011	2012	Terminal
Sales Growth Rate	10.0%	8.0%	3.0%
NOPAT / Sales	20.0%	20.0%	15.0%
Beginning Net Operating Working Capital / Sales		3.0%	3.0%
Beginning Net Operating Long-Term Assets / Sales		105.0%	100.0%
Net Debt / Book Value of Net Capital	27.75%	27.75%	27.75%
Preferred Equity / Book Value of Net Capital	0.0%	0.0%	0.0%
Shareholders' Equity / Book Value of Net Capital	72.25%	72.25%	72.25%

Source: Casewriter.