Coca-Cola's Valuation, Warren Buffett's 1988 Purchase

*By **budlab** - 9 months ago*

About KO, BRK.A

For years, we have wondered how Warren Buffett valued Coca-Cola (NYSE: KO) stock at such a deep bargain in 1988. In this book, we estimate the intrinsic value of each Coca-Cola share when Warren Buffett purchased 7% of the company that year. This book describes a simple two stage discounted cash flow model that delivers a close approximation of the stock's intrinsic value at that point in time.

In 1987, Coca-Cola was refocusing on its core business and sold its Columbia Pictures subsidiary. The "New Coke" fiasco of 1985 was past. The company was repurchasing common stock. So, how did the business look in the eyes of Buffett and Munger?

As some of you know, "The Four Filters Invention of Warren Buffett and Charlie Munger" book explored their investment decision making process." We believe that Buffett and Munger made a major contribution to the field of Behavioral Finance by applying these four sequential filter steps:

Filter #1: Look for a business you understand, within your "circle of competence."

Filter #2: Look for a Durable Competitive Advantage

Filter #3: Insist on Able & Trustworthy Managers

Filter #4: Insist on Ben Graham's Margin of Safety where your purchase price is significantly below the intrinsic value.

Coca-Cola passed these filters. Consider the significance of each filter like this.
Filter #1: Understanding means finding an understandable business with good

economics. Filter #2: Look for a Durable Competitive Advantage. This means having repeat customers. Filter #3: Insist on Able & Trustworthy Managers because management must have both qualities. Why? The able but untrustworthy manager can lead to disaster.

Filter #4: Insist on a Margin of Safety where your purchase price is significantly below the intrinsic value. This is Ben Graham's quest: to buy a business at a significant bargain so that the risk of capital loss is minimized; and, the probability of capital appreciation is maximized. Therefore, let us look at Coca-Cola's intrinsic value per share in 1988. Coca-Cola is a business with a differentiated and continuing competitive advantage. Its economic moat is deep and wide. It has a combination of a special brand advantage, a large-scale "cost of production" advantage, and a global network distribution advantage. We could say that it has three moats around its economic castle. In addition, its managers work to build this moat bigger every day.

A customer generally asks for a Coke by name. Customers do not buy a 'cola'. Charlie Munger said, "The social proof phenomenon which comes right out of psychology gives huge advantages to scale—for example, with a very wide distribution, which of course is hard to get. One advantage of Coca-Cola is that it's available almost everywhere in the world."

In 1988, Warren Buffett and Charlie Munger began buying stock in the Coca-Cola Company for the Berkshire Hathaway portfolio. They purchased about 7% of the company for $1.02 billion. This turned out to be one of Berkshire's most lucrative investments. Berkshire Hathaway now owns 8.9 percent or 400 million shares of Coca-Cola.

Buffett and Munger knew that commodity companies sell products or services that can be reproduced. In 1982, Buffett said this about commodity companies: "Businesses in industries with both substantial over-capacity and a "commodity" product (undifferentiated in any customer-important way by factors such as performance, appearance, service support etc.) are prime candidates for profit troubles." There are also companies that market commodity products so well that they distinguish their commodity product from that of their competitors. These put their own special 'brand' upon their product. They can achieve this by the marketing mix of price, product, placement, and promotions. In addition, continuous improvement in terms of higher quality production and service is always a plus.

In 1993, Warren Buffett said this about companies with competitive advantages: 'Is it really so difficult to conclude that Coca-Cola and Gillette possess far less business risk over the long term than, say, any computer company or retailer? Worldwide, Coke sells about 44% of all soft drinks, and Gillette has more than a 60% share (in value) of the blade market.' Leaving aside chewing gum, in which Wrigley is dominant, I know of no other significant businesses in which the leading company has long enjoyed such global power.'

Coca-Cola has a strong brand identity in the global market and it has pricing power. It is one of most respected brands in the world. Coca-Cola utilizes a great amount of positive advertising to maintain the Coke brand. The amount of advertising is also a barrier to entry; it makes it impossible for brands with low capital to gain a comparable amount of brand awareness. This creates an expensive barrier to entry.

Recently, Coca-Cola's 5Yr Gross Margin (5-Year Avg.) is approximately 62%. Its Net Profit Margin (5-Year Avg.) is approximately 22%, while the industry Net Profit Margin (5-Year Avg.) is 18.0%. Coca-Cola also has better earning power efficiency in term of Free Cash Flow per unit of sale.

As of 2012, Coca-Cola has a 5-Year Average Return on Equity (ROE) of 29.9%. Its worldwide distribution system is also major competitive advantage.

Are these advantages sustainable for the next 10 years? Yes. However, Coca-Cola has recently dropped out of the top ten brand value list for the first time. This may be underpinned by a consumer trend towards healthier, non-carbonated drinks. Coca-Cola recognized "obesity and health concerns" as potential risks for the company in the 2010 annual report. However, there is little doubt that Coca-Cola's loyal brand following will sustain its competitive advantage. Coca-Cola recognizes the need to sustain marketing and increase innovation.

In its 2010 annual report, they acknowledged the need to continue to selectively expand into other profitable segments of the nonalcoholic beverages segment.

From the 2012 annual report: "Obesity and other health concerns may reduce demand for some of our products. Consumers, public health officials and government officials are highly concerned about the public health consequences associated with obesity, particularly among young people. In addition, some researchers, health advocates and dietary guidelines are encouraging consumers to reduce consumption of sugar-sweetened beverages, including those sweetened with HFCS (High-Fructose Corn Syrup) or other nutritive sweeteners. Increasing public concern about these issues; possible new taxes on sugar-sweetened beverages; additional governmental regulations concerning the marketing, labeling, packaging or sale of our beverages; and negative publicity resulting from actual or threatened legal actions against us or other companies in our industry relating to the marketing, labeling or sale of sugar-sweetened beverages may reduce demand for our beverages, which could adversely affect our profitability."

A historically wonderful business, Coca-Cola's able and trustworthy managers are motivated to invest in its supply chain network to "leverage the size and scale of the Coca-Cola system to gain a competitive advantage." With this "moat building" in mind, we believe that that Coca-Cola will be successful in maintaining its economic franchise and current barriers to entry.

On October 18, 2012, Coca-Cola announced that it planned to purchase up to 500 million shares of the company's common stock. Such actions add value to the "intrinsic value" of each remaining share outstanding.

Consider why the Coca-Cola Company is such a good business from an investor's point of view. Both Coke and Pepsi make products we enjoy. As an investor, we prefer the Coca-Cola Company. One reason is the amount of Free Cash Flow generated for every sale. Another reason is the amount of Free Cash Flow generated after expenses.

Charlie Munger once stated: "Warren often talks about these discounted cash flows, but I've never seen him do one." Warren Buffett responded: "It's sort of automatic... It ought to just kind of scream at you that you've got this huge margin of safety." Buffett went on to state: "We define intrinsic value as the discounted value of the cash that can be taken out of a business during its remaining life. Anyone calculating intrinsic value necessarily comes up with a highly subjective figure. This figure will change both as estimates of future cash flows are revised and as interest rates move. Despite its fuzziness, however, intrinsic value is all-important and is the only logical way to evaluate the relative attractiveness of investments and businesses."

This exercise is our quantitative estimation of Coca-Cola's Intrinsic Value Per Share in 1988. First, we describe our 2-stage "discounted cash flow" valuation model. This estimating model is strict. It assumes a good business will only "live" for 20 years. Within this model, we apply compounding growth to the first 10 years. Then, we assume a lower growth rate for years 11 until the end of year 20. This restriction of lesser growth in years 11 thru 20 means that this restriction imposes a degree of conservatism on top of the estimator's optimism during the model's early growth years. Then, after we sum up all the individual end of year cash, we should apply a discount rate and bring that sum back to present value. At this point, we divide by the number of shares outstanding.

First, keep in mind, Warren Buffett said: "Intrinsic value as the discounted value of the cash that can be taken out of a business during its remaining life. Anyone calculating intrinsic value necessarily comes up with a highly subjective figure. This figure will change both as estimates of future cash flows are revised and as interest rates move. Despite its fuzziness, however, intrinsic value is all-important and is the only logical way to evaluate the relative attractiveness of investments and businesses."

Again, we emphasize that our model is an "estimation method" that imposes conservatism by limiting growth in the final ten years. It is just a model for 1988. At that time, KO stock traded between $35 and $45.25. From 1987 to 1988, the net income grew 14% and the net income per common share grew 17.3%. The number of shares outstanding in 1988 was 364,612,000 shares. We used a discount rate of 6.0% because that is the approximate 20-year average from 1988 to 2008. (see below)

Average: 10-Year US Treasury Rates from 1988–2008

1988 8.50% 1998 5.26%

1989 8.50% 1999 5.64%

1990 8.55% 2000 6.03%

1991 7.86% 2001 5.02%

1992 7.01% 2002 4.61%

1993 5.87% 2003 4.02%

1994 7.08% 2004 4.27%

1995 6.58% 2005 4.29%

1996 6.44% 2006 4.79%

1997 6.35% 2007 4.63%

2008 3.67%

AVERAGE: 5.95%

Coca-Cola's 1988 Annual Report does not show Free Cash Flows. We can calculate FCFs below using available information from its 1988 financial statements like this:

The formula for calculating Free Cash Flow (FCF) is:

Free Cash Flow = Operating Cash Flow – Capital Expenditures

Free Cash Flow = (EBIT x (1–Tax Rate)) + (Depreciation & Amortization) – (Changes in Working Capital) – Capital Expenditure

Remember that Operating Income is referred to as EBIT or (Earnings Before Interest & Taxes, shown on the Income Statement.

Working Capital = (Current Assets) – (Current Liabilities)

EBIT is also known as Operating Income = $1,598,300,000

EBIT = Earnings Before Interest & Taxes

Tax Rate in 1988 = .34 or 34%

Depreciation & Amortization = $169,768,000

Changes in Working Capital = $227,993,000

1988's Working Capital = 1988 Total Current Assets – 1988 Total Current Liabilities

$376,535,000 = $3,245,432,000 – $2,868,897,000

1987 Working Capital = 1987 Total Current Assets – 1987 Total Current Liabilities

$148,542,000 = $4,231,921,000 – $4,083,379,000

Capital Expenditures = $387,000,000

(EBIT x (1–Tax Rate)) + (Depreciation & Amortization) – (Changes in Working Capital) – Capital Expenditure = Free Cash Flow

($1,598,300,000 x (1– .34)) + $169,768,000 – $227,993,000 – $387,000,000 = FCF

($1,598,300,000 x (.66)) + $169,768,000 – $227,993,000 – $387,000,000 = FCF

$1,054,878,000 + $169,768,000 – $227,993,000 – $387,000,000 = FCF

$1,054,878,000 + $169,768,000 – $227,993,000 – $387,000,000 = $609,653,000

We used an assumed FCF annual growth of 15 percent for the first 10 years; and we assume 12 percent growth from years 11 to the end of year 20. Keep in mind that this is how our estimating model was designed. In the real world, you should adjust your model to better fit a superior or inferior business' longevity.

In fact, for a great company like Coca-Cola, you could lengthen the second stage of your model out to another 5-20 years. For the purpose of conservatism, we chose to stay with our 20 year two-stage model with the compounding growth set at 15% and 12% respectively. These are reasonable expectations for that period, based on Warren Buffett's 1990 letter where he wrote: "we hope to have look-through earnings grow about 15% annually."

In our model, the resulting estimated intrinsic value per share (after discounting the sum back to the present) is approximately $78.67. If Warren Buffett bought at or around the Market Price of $40, he obtained a margin of safety of around 49%.

At this point, it is important to remember that Intrinsic Value is not a precise number. It is an estimated range. It is better to be approximately right than precisely wrong. As you can see below, both valuation models have estimated valuations that are fairly close to one another. The DCF/FCF model inspired by John Burr Williams estimates Coca-Cola's intrinsic value at around $79. Alternatively, Benjamin Graham's classic formula estimates the value of Coca-Cola to be approximately $87.48.

We believe that it is better to go with the more conservative estimation, and examine the business qualities within the Four Filters Process. The Four Filters are a search for: “Understandable first-class businesses, with enduring competitive advantages, accompanied by first-class managements, available at a bargain price.” This is discussed in the next chapter.

Here is the Ben Graham formula: V = EPS = (8.5 + 2g)

Where V = Intrinsic Value

EPS = Earnings Per Share for ttm (trailing twelve months)

8.5 = Price/Earnings (P/E) ratio for a no-growth business

G = reasonable expected 7–10 year growth rate

For our 1988 Coca-Cola valuation:

V = $2.43 x (8.5 + (2x14))

V = $2.43 x (8.5 + 28)

V = $2.43 x 36.5

V = $88.70

Alternatively, if we imagine Buffett performing this calculation in his head, his modified Graham formula might resemble something like this:

V = EPS = (8 + 2g)

V = $2.43 x (8 + (2x14))

V = $2.43 x (8 + 28)

V = $2.43 x 36

V = $87.48

WARNING

Remember that intrinsic value estimations comprise Filter #4 of Buffett & Munger's Four Filters investment process. Be sure to consider all four filters during your investment research & analysis.

No matter which estimation method you adopt, keep in mind that Warren Buffett bought an understandable business with sustainable competitive advantages, able trustworthy managers, and a significant bargain relative to its intrinsic value. These four filter factors describe the wonderfulness or magic of a business.

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