Shayana Shrestha

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Finance 300

Financial Analysis Project

Part I: Company Description

Coca-Cola originated in Atlanta, Georgia, in 1886 by Dr. John Pemberton. In 1891, Asa Candler purchased the business for $2,300. Under Candler's ownership, the sales rose by over 400% Coca-Cola was later founded in 1892, primarily to manufacture and sell Coke concentrates. In 1919, the Coca-Cola Company was sold for $25 million to a group of investors led by Atlanta businessman Ernest Woodruff. Coca-Cola is headquartered in Atlanta, Georgia with many locations all over the world. Coca-Cola is also the largest beverage manufacturer in the world with over 2,800 products that are available in over 200 countries. The company engages in manufacturing, marketing, distribution, and sale/retail of its many products.

Coca-Cola uses a marketing tactic called price discrimination. This pricing strategy is a microeconomic tactic where identical goods are sold at different prices by the same provider within a market. This reflects an oligopoly market structure, where a small number of firms can set their prices because they have many purchasers. Since oligopolies have limited market competition, they are given a significant amount of control over buyers and dominance over an industry. The vision behind the products Coca-Cola offers starts with the craft for refreshing drinks the body and spirit love. This passion for their product allows them to create sustainable business ventures and partnerships, allowing for bigger impacts on more individuals and their communities.

When it comes to the beverage industry, Coca-Cola is the leading brand in its market, whereas Coke's main rival is Pepsi. However, even if Pepsi fails in the beverage industry, it will continue to thrive since Pepsi also owns other food products that will continue to make sales, including Doritos, Lay's, Cheetos, Tostitos, Fritos, and other food brands. On the other hand, Coke is only active in the beverage market and owns other brands including Minute Maid, Powerade, Gold Peak Tea, Dasani, and Vitaminwater. Although both beverages are similar in taste, each one has a large volume of customer loyalty. It is also neat to mention that much of the branding that Coke brings to the market, is reflected upon strategies to help separate itself from its competitors. One of those tactics was the invention of the six-pack which carried over into many other products within many other organizations.

In terms of Coca-Cola's advertisements, they have been at the top of their game in comparison to their competition. Since late 1800 the company has been making historical ads that have sparked revolutionary changes within the marketing/advertising industry, as well as the products they produce for their consumers. In other words, Coke uses aggressive marketing tactics to get their campaigns either through your ears or eyes. They use media channels, social media, print, and other traditional media methods. As a result of this tactic, they communicate a strong message that connects and brings an effective message across, which is to enjoy their beverage.

Regarding risk factors that Coca-Cola has encountered, they have seen quite a few in the past few years. The heaviest hitter to start was Covid-19, where the pandemic brought many industries to a halt or close for good. Thankfully for Coke, they were one among a large handful that was able to continue their operation to their large manufacturing structures that were capable of manufacturing products that the world needed. This not only benefited the world for receiving necessities, but it brought tons of brand awareness to the company for the good they were doing in the world. A problem that occurred in addition to covid was that individuals were wanting to stay home, creating slower production cycles. There was a large financial risk that came from the pandemic that even had large organizations like Coke worrying for even the foreseeable future.

Part II: Financial Ratios

From pulling the statistical data on Coca-Cola's 10k findings, I was able to break down the ratios and determine the "health or condition" of the organization. To begin I determined that the **liquidity ratios** all had large increases from the years 2019 and 2020. The **current ratio** increased roughly 56% through the first year of the pandemic. Then the **quick ratio** increased by roughly 46%, allowing Coke's quick assets on hand to equal some of their current assets. This means that the company can pay off its debts. And lastly, the **cash ratio** also increased by roughly 56%, which shows good representation that they can pay off current liabilities without needing to sell or liquidate.

Liquidity Ratios	2019	2020
Current Ratio	0.7567	1.3177
Quick ratio	0.6314	1.0940
Cash ratio	0.6545	1.2129

Jumping into the **leverage ratios,** we can see through the data depicted below, that most of Coke's leverage ratios stayed the same and showed no change besides the time's interest earned ratio and cash coverage ratio. The first three ratios explain to us that they have been maintaining operations at a consistent pace, even though the pandemic. These ratios all even slightly increased and illustrate that the company can pay off its debt and stay away from financial issues. This also means that they have additional capital for further/future investments with the cash after paying debts off. The **times interest earned** ratio roughly increased by 17.6977, bringing Coke closer to obtaining a 0 or positive times interest earned ratio. Furthermore, I determined that the cash coverage increased by roughly 5. This then told me that Coke is very close to being able to cover their interest expense and thus then turning a profit. This ratio expresses that Coke would be struggling in 2020 with amounts of cash on hand to pay for borrowers' interest expenses. So as result, these two ratios tell us that Coca-Cola is not in the best standing position for good financial health.

Leverage Ratios	2019	2020
Total debt ratio	0.7558	0.7562
Debt-equity ratio	3.0943	3.1015
Equity multiplier	4.0943	4.1015
Times interest earned ratio	-26.8120	-9.1143
Cash coverage ratio	-5.7076	-0.7516

Now that we have discussed Coke's liquidity and leverage ratios, let's move into their **Turnover Ratios**. I determined that for this series of ratios, **inventory turnover**, **receivable turnover**, and **total asset turnover ratios** all roughly stayed unchanged. Whereas the company's **days sales in inventory** and **days' sales in receivables** ratios had roughly a 4.1 to 4.3 change in ratios spanning between the two years and two ratios. Further breaking down days sales in inventory, the increase of roughly 4.3 days occurred transitioning from 19 to 20. A representation of what 88.74 days means, is that it takes Coke roughly 89 days to cover their inventory into cash through sales. Whereas days sales in receivables represent how well a business can collect revenue from their customers. I figured that Coke had a decrease of roughly 4.1 or 4 days, theoretically allowing their products to sell faster off the shelves and create revenue for both businesses.

Turnover Ratios	2019	2020
Inventory turnover	4.3264	4.1130
Days' sales in inventory	84.3652	88.7434
Receivable turnover	9.3845	10.5006
Days' sales in receivable	38.8938	34.7598
Total Asset Turnover	0.4314	0.3782

While going through and breaking down Coca-Cola's profitability ratios and assessing their ability to earn profit from their sales and operations; the ratios from a generalist view, relatively stayed the same but did all have a slight decreasing transition from 2019 to 2020. In further analysis, we can see illustrated below that the **profit margin,** slightly dropped by .0047, which really is not a large change but noticeable. As we continue down the profitability ratios, we see a decrease of roughly 0.0146 from 2019 to 2020 in their **return on assets**. This in turn allows analysts, managers, and investors to determine how effectively/efficiently Coke is running its operation. Finally, the return on equity ratio had the largest change which also decreased by 0.0588. However, a ratio of roughly 36% for return on equity is quite good and demonstrates that Coca-Cola is doing a good job at generating revenue.

Profitability Ratios	2019	2020
Profit Margin	0.2394	0.2347
Return on assets	0.1033	0.0887
Return on equity	0.4228	0.3640

For our final set of ratios, I discovered Coke's **market value** ratios, which had no significant changes but some worth mentioning. I found that in 2019 Coke had higher **earnings per share** at $2.10, and in 2020 it decreased to $1.80. This is an indicator that Coke has lost some profitability over the course of the year and through the first year of the pandemic, rightfully so though. The pandemic put a large hardship on virtually everyone. One interesting thought to mention is how Coke's **price earning** ratio actually increased by 4.66, which conveys that investors are paying more in 2020 than they did in 2019. Additionally, the **price-sales** ratio increased almost by 1, distinguishing that the market is more willing to pay for products. And lastly, the **market-to-book equity** ratio determines the market value of coke, which is represented by a 0.0018 difference between the two years. This incremental difference is not large enough to deter investors as situational factors like covid, which is also in relation to other external factors taking place creating more problematic factors in the world, per se.

Market Value Ratios	2019	2020
Earnings Per share	2.1013	1.8086
Price Earnings ratio	24.5091	29.1660
Price sales ratio	5.9606	6.9045
Market to book equity ratio	0.4116	0.4098

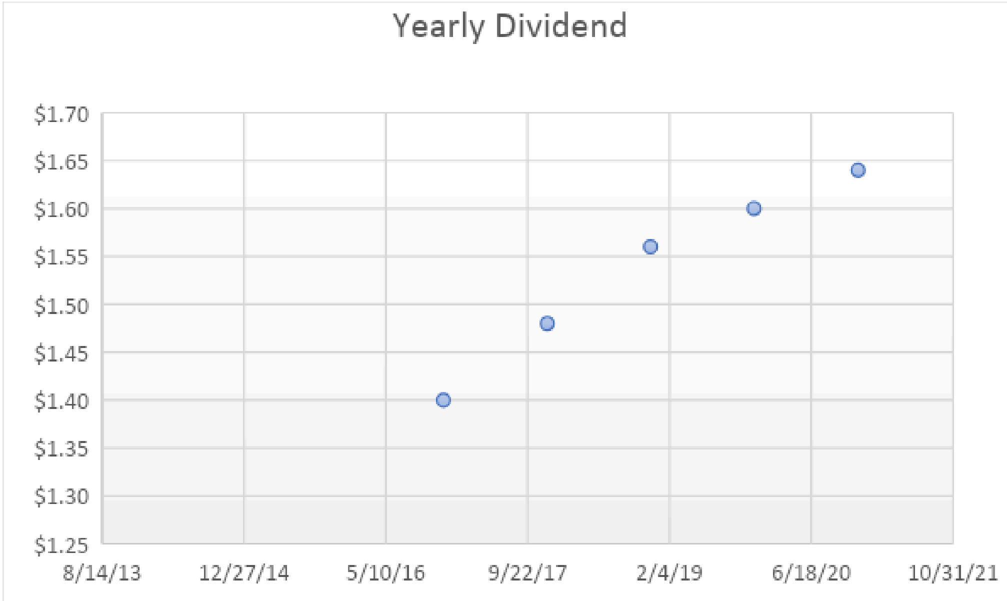
Using the **Dupont analysis**, I found that the return on equity has decreased from 0.422 in 2019 to 0.364 in 2020. The equity multiplier and profit margin have remained slightly similar in the two years. However, the total asset turnover ratio decreased in 2020, causing the return on equity to also decrease. In 2019, Coca-Cola's total revenue was $37 billion. This decreased to $33 billion in 2020. The decrease in revenue in 2020 is the underlying cause of the decrease in return on equity 2020. To increase the return on equity ratio, Coca-Cola should increase revenue sales for 2021 or decrease their total assets ultimately, this would increase the return on equity ratio.

Regarding Coca-Cola's profitability, we can see they have been on a relatively small rollercoaster, fluctuating from year to year, creating changes within the company's ratios, but nothing majorly substantial. To break it down more specifically, we see that in 2019, Coke's profitability ratios were higher, representing flexibility within the company and with their debt. Whereas in comparison, we see in 2020, that the ratios slightly did decrease, which could cause some motion for alarm or to question what within the operation is below the standard efficiency level Coke holds its organization to.

Dupont Identity	2019	2020
	0.4227889	0.3639823

Part III: Cost of Equity

The data depicted through this graphic of dividend data can be further broken down and analyzed in the appendix of the exhibit. The graphic shows an illustration of relatively constant growth over the period of 2016 to 2020 in terms of Coke's dividends. In further detail, I discovered that the yearly dividend up till 2019 increased by roughly 0.08 cents per year. However, in 2019 it only increased by 0.06 cents per share. This data then represented roughly a 5% annual growth rate for the years 2017 and 2018; wherein in 2019, the growth equals 2.56%.



Date	Dividends	Yearly Dividend	Annual Growth Rate
3/11/16	0.35		
6/13/16	0.35		
9/13/16	0.35		
11/29/16	0.35	$1.40	
3/13/17	0.37		
6/13/17	0.37		
9/14/17	0.37		
11/30/17	0.37	$1.48	0.0571
3/14/18	0.39		
6/14/18	0.39		
9/13/18	0.39		
11/29/18	0.39	$1.56	0.0541
3/14/19	0.4		
6/13/19	0.4		
9/13/19	0.4		
11/29/19	0.4	$1.60	0.0256
3/13/20	0.41		
6/12/20	0.41		
9/14/20	0.41		
11/30/20	0.41	$1.64	0.0250

From the table above, yearly dividends are changing from 2017 to 2020, this explains that dividends are growing at a non-constant growth rate. This information distinguishes yearly dividends and annual growth in a systematic approach. It is growing at about 5.5% growth rate in the first two years then decreases to 2.5% growth in the two following years. With that said, we can find the average growth rate for the four years that predict the dividends will grow at an average of about 4% per year in the future. Coke's average dividend growth rate would be considered in the range of a good dividend yield, which can also factor in a large portion of investments or partnership opportunities.

Average Growth	
0.04046	(Now we can project future growth)

From the data broken down above, the average growth rate is represented by 0.04046. As we see illustrated below, I then plugged my average dividend growth rate into our constant-growth equation and then determined that the **cost of equity** was 0.07280, or 7.28%. This means that Coke is required to make a minimum of 7.28% on return for equity investors. In comparison to competitors or the beverage industry, Coke falls in the range of having a good cost of equity in terms of risk/reward for the company and investors. To complete the understanding of the chart, D1 represents that g will contribute towards assuming the dividend rate for the following year. Lastly, P0 represents the adjusted closing market price that Coke is currently holding in the year 2020.

Constant-Growth	
g	0.04046
D1	1.70635
P0	52.76
Cost of Equity	0.07280

The **Capital Asset Pricing Model (CAPM)** is another method that estimates the cost of equity. The CAPM method ignores limitations that are found by using the dividend growth model which included being applicable to only companies that pay dividends, dividends needing to be growing at a constant rate, and applying to only mature companies with steady growth. First, variance is used to measure the volatility of an asset. While covariance measures returns over a period of two different investments.

To calculate CAPM, we will also need to first find beta. **Beta** is a way to measure the volatility of a stock versus the markets. Assets with higher beta will have a higher expected return, therefore also making a higher beta riskier in terms of investing. In the table shown below, we see that Coke's beta equals 0.59, which means that Coca-Cola stock moves at a rate of 59% compared to the market. This shows that although Coke's returns are lower compared to the market returns, Coke is a reliable investment for those who are seeking to take on less risk. Beta can then be used to calculate the CAPM cost of equity. In this case, the CAPM equals 0.055 or 5.5%. This displays the required rate of return and expected returns for the company and investors.

CAPM Calculations	
Beta	0.59234
Covariance	0.00115
Variance	0.00194
Standard Dev	0.04405

CAPM Cost of equity	0.05554
Averaged Cost of Equity	0.06417

Part IV: Equity Valuation

In the table described below, I have calculated the predicted stock valuation for Coke assuming a zero-growth dividend model. With a zero-growth model, we calculate D0 divided by rate, in this case, that is the average cost of equity. The stock value for this model is $25.56 which is relatively lower than Coke's market price in 2020. If Coke decided to offer shareholders a zero-growth dividend, this will negatively affect the current market price.

Zero-growth

D0	1.64
P0	52.76
g	0.04046
Averaged Cost of Equity	-0.00458
Stock Valuation	25.55676

In the table shown below, we are assuming the stock valuation for Coke using a constant growth model at the growth rates of, 1%, 2%, 3%, 4%, and 5%. The stock valuations and increasing as the growth rates increase. This means that companies with a higher growth rate will become more attractive to investors as they can assume that future dividends will be largely identical in the future, ultimately causing the stock valuation to rise.

Constant-growth

g	D1	Stock Valuation
0.01	1.6564	30.57731
0.02	1.6728	37.87110
0.03	1.6892	49.43390
0.04	1.7056	70.56425
0.05	1.722	121.51681

In the non-constant growth model shown below, we used the averaged growth to calculate the company's stock valuation. We can see that the non-constant valuation is much less than the constant growth models. This model does not attract as many investors as a constant growth model since investors know these growth rates can change at any point.

Non-constant growth

g1	D1	D2	D3	1+r
0.04046	1.70635	1.77539	1.81090	1.06417
g2				
0.02	**Present Value**			**Price**
	1.60346	1.56773	36.92630	40.09748

After calculating the stock valuation for zero-growth, constant growth, and non-constant growth I have discovered the scenario that is most similar to the market share price. Coca-Cola's adjusted year-end price for 2020 is $52.76. The constant growth model above displays a stock valuation most similar to the market price, which can be seen at 3% growth and a valuation of $49.43. This means that through all my scenario calculations on average Coke's dividends will grow nearest to 3%. The growth of dividends is heavily correlated with the stock valuation of the company. To conclude dividend growth rates, we can see that the stock valuations that attract investors the most are constant dividend growth rates. This model is most appealing to investors since dividends are promised to continue to grow.

Part V: Discussion, Conclusion, and Citations

As I am not a soda consumer, I had no previous experience or bias with the company; so, I felt that I had a good perspective to start with. While I thought the project was a bit overwhelming, to begin with, once I started getting my data broken down and formatted onto my excel sheet, I began to understand the operation of Coke much better. In terms of fundamental value, I discovered that the organization is strongly passionate about their products and partners, the leadership and management lead by example and encourage employees to shape a brighter future, and lastly collaboration from top executives all the way to floor employees, which allows the company to run smoothly year after year. I additionally learned that Coke is a large voice towards diversity within their organization and how they strive for the integrity of individuals within the communities they serve and operate.

I could see myself investing in this company as they have been around for many years and have no plan in stopping production or operation any time soon. I would say that Coca-Cola has been paying dividends for well over 50 years, and that itself has contributed to new and long-lasting investors. As for working for Coke, I currently don't see too many positions or opportunities within an industry I have no drive for. So, I personally would not like to work for Coke but still find the financial aspect of their organization thrilling to learn about. Furthermore, if I was a potential investor, I would like to see higher profitability ratios that then reflect the amount of cash on hand Coke has. This would also affect their debt ratios as they could allocate their resources differently with larger leverage and profitability ratios.

For external factors, Coca-Cola faces different taxation issues/rules in different countries and locations around the world. This can play into Coke's total ratios from location to location and can create a differential in revenue and other contributing factors toward the organization's health. The company also faces technological advancements which ultimately is a good thing for the company; however, it can take time to perfect a strategy or new tactic within technology. One important factor Coke needs to pay attention to as a large organization in the world is its carbon footprint in terms of pollution and harmful environmental factors.

In reflection on the Covid-19 pandemic, Coca-Cola took a large dip across the board in their ratio and standing within the beverage industry. It is important to note that because they were among one of few companies to continue operation, this allowed them to gain large portions of brand awareness and support because they were attempting to do right to their communities. In terms of the cost of capital, we can see a lot of capital recirculating through the organization and within retailers and partners. Coca-Cola's strategies emphasize that they are striving for long-term relationships and targets/goals. One key part to mention is that the expected return decreased moving through the year 2020. This reflected that they are bringing in fewer profits than they did before the pandemic. Whereas due to lower valuation, dividends will increase, causing stock valuations to ultimately plummet.

After researching articles related to Coke and the pandemic, I discovered some interesting procedures that Coke has taken initiative towards. In response to the pandemic, Coca-Cola claims that “to ensure we can continue to make the beverages our communities need; our production and distribution facilities continue to operate but have adjusted their ways of working to protect everyone’s safety and well-being” (Coca-Cola 2020). This quote stresses the importance that Coke must take to improve safety and health standards to not only protect their organization, but also all that is involved from executives to employees delivering products. I found it interesting that the company has shifted from a more business focused, money-driven company into a more employee-safe strategy creating a better outlook for the organization. I think the measure the company is taking is perfectly aligned with what the world and industry need, as smaller companies and businesses reflect off large corporations like Coca-Cola.

The second article I learned about was about Coke’s supply chain and how it plays an essential role in the company’s procurement, planning, and manufacturing amongst other things. The company strives to ensure the business is ready for growth and the future. That said, Coke is “investing in advanced technologies and transforming and digitizing many of our supply chain processes" (Coca-Cola HBC n.d.). As our world continues to advance in technology, organizations such as Coke need to stay up to date to allow them a competitive advantage over their competition, such as Pepsi. So, with that said, Coke is on the right track coming out of the pandemic and utilized the downtime that the pandemic provided to upgrade its manufacturing processes as well as its strategies and tactics.

In conclusion, Coca-Cola is one of the largest beverage companies in the world and will continue to lead the industry alongside Pepsi. I predict that between these two large companies, it will be a footrace for many more years to come. I believe Coke’s cost of equity will decrease in 2021 because the revenue will continue to decrease through the pandemic and sources of revenue may need to be shifted to other resources within the organization. This is due to the pandemic having harsh external factors on other partners that contribute to the health of Coke’s company. Whereas in terms of the company's stock valuation, due to the decrease in cash flow to the firm, Coke will see a decrease in the company stock valuation.

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Appendix

Part 2: Ratios and Formulas

Liquidity Ratios	2019	2020
Current Ratio= current assets/current liabilities	0.7567	1.3177
Quick ratio= (current assets-inventory)/current liabilities	0.6314	1.0940
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Turnover Ratios	2019	2020
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