



PEPSICO

NASDAQ: PEP

Current Price: \$169.39

Target Price: \$191.36

Recommendation: Buy

Potential Upside: 11.48%

VS

NYSE: KO

Current Price: \$55.14

Target Price: \$61.51

Recommendation: Buy

Potential Upside: 10.36%

Coca-Cola



1. Company Overview

Company Overview

Coca Cola (NYSE: KO)



Company Description

The Coca-Cola Company, a beverage company, manufactures, markets, and sells various nonalcoholic beverages worldwide. The company provides sparkling soft drinks; flavored and enhanced water, and sports drinks; juice, dairy, and plant-based beverages; tea and coffee; and energy drinks. It also offers beverage concentrates and syrups, as well as fountain syrups to fountain retailers, such as restaurants and convenience stores.

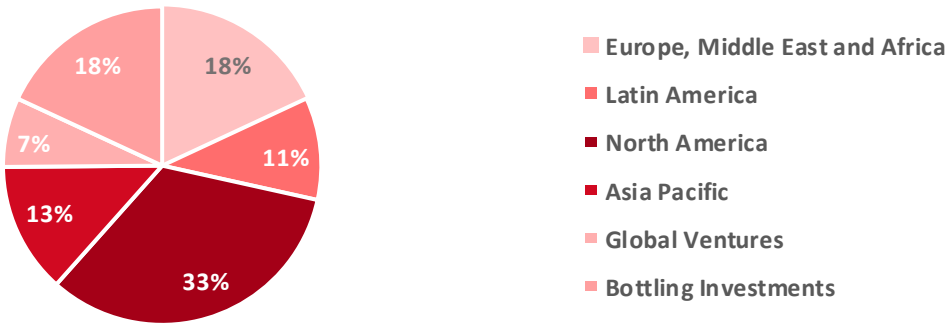
Source: CapitalIQ

Key Competitors



Source: Coca Cola Annual Report 2021

Revenue By Region



Source: Coca Cola Annual Report 2021

Revenue By Product



Source: Coca Cola Annual Report 2021

Company Overview

Pepsi Co, Inc. (NASDAQ: PEP)



Company Description

PepsiCo, Inc. manufactures, markets, distributes, and sells various beverages and convenient foods worldwide. PepsiCo’s products include a wide range of household-name food and beverage brands, including Pepsi, Gatorade, Frito-Lay, Quaker Oats, Rockstar Energy, and Muscle Milk.

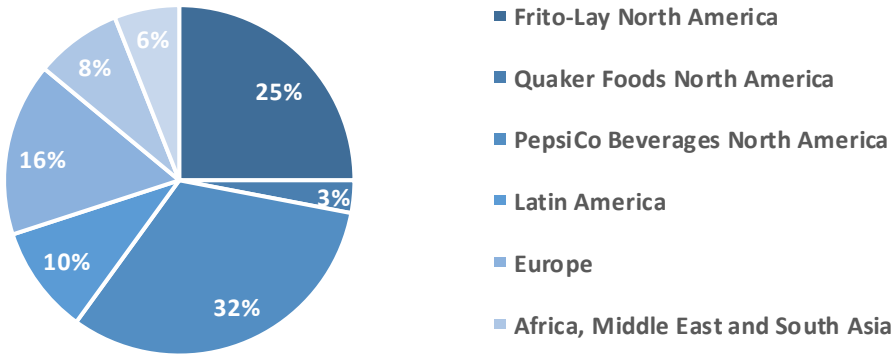
Source: CapitalIQ

Key Competitors



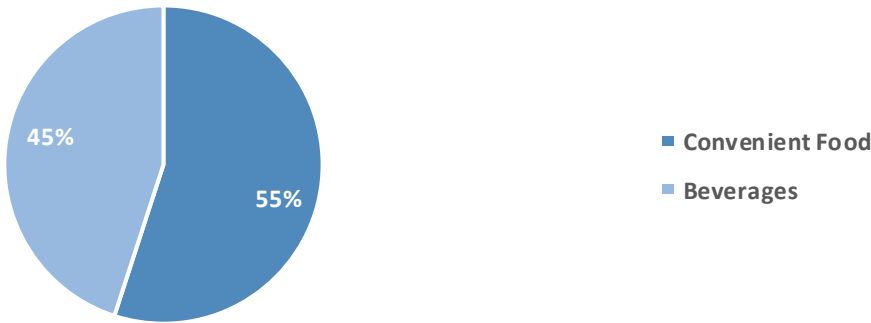
Source: Pepsi Annual Report 2021

Revenue By Region



Source: Pepsi Annual Report 2021

Revenue By Product



Source: Pepsi Annual Report 2021



2. Macro & Industry Overview

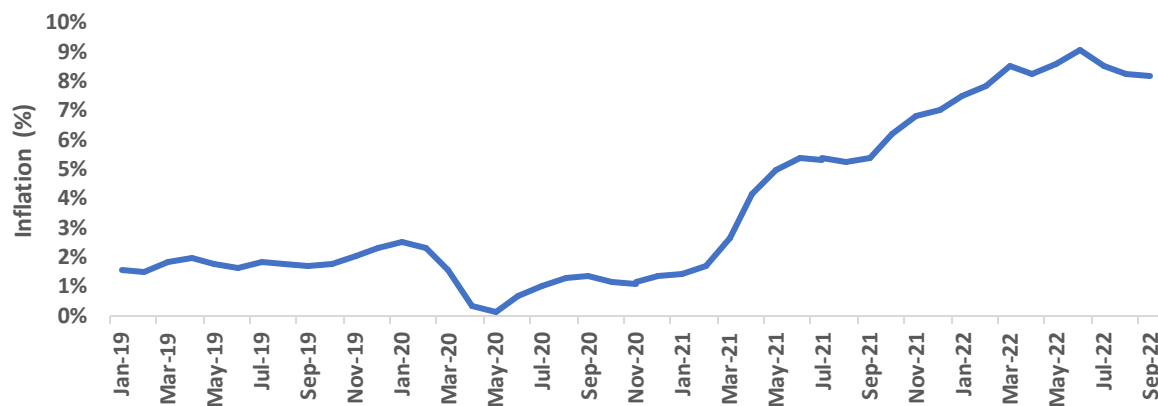


Macroeconomic & Industry Overview

Rising Inflation Impacting The Beverage Industry

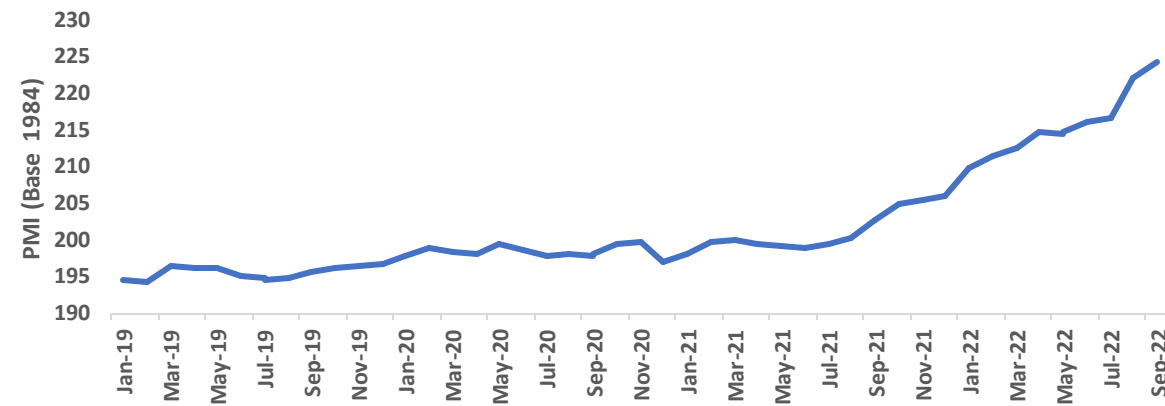


Inflation



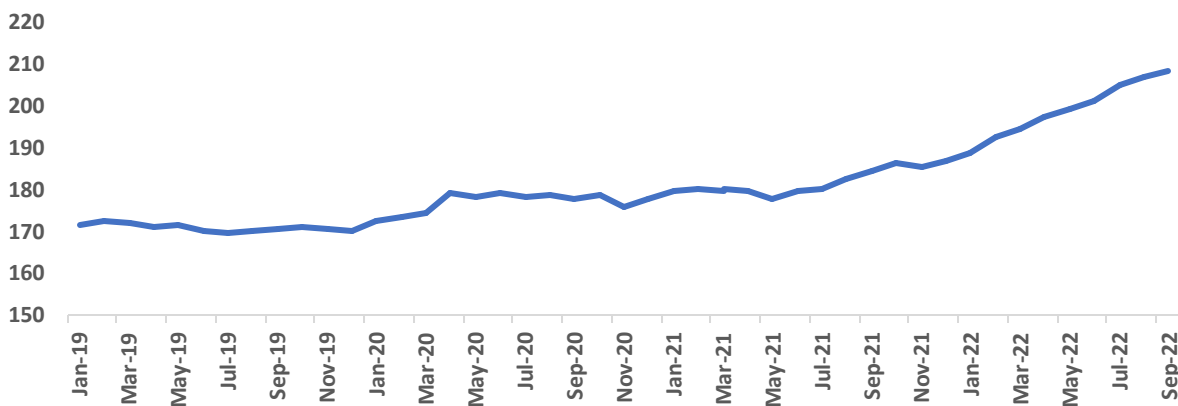
Source: U.S. Bureau of Labor Statistics

Producer Manufacturing Index – Beverage Industry



Source: U.S. Bureau of Labor Statistics

Consumer Price Index - Beverages



Source: U.S. Bureau of Labor Statistics

Overview

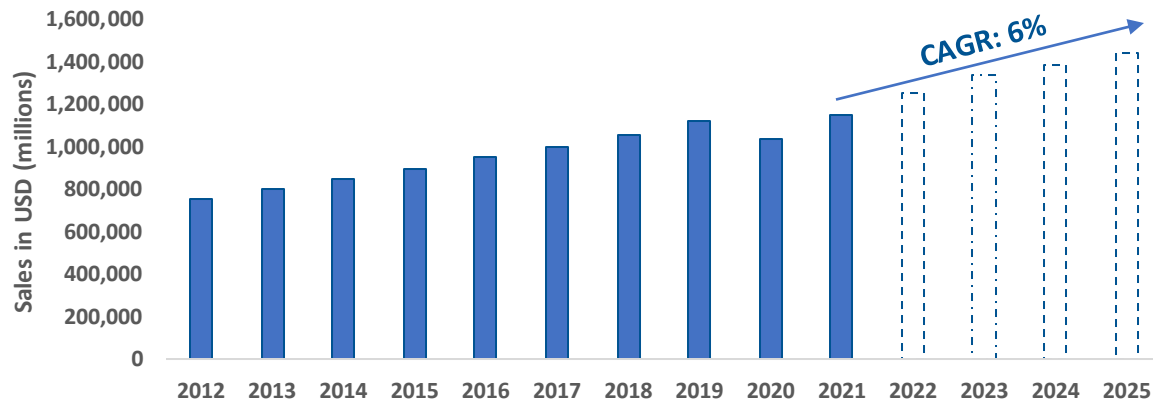
- Inflation caused by supply chain bottlenecks, labor shortages, and a consumer cash influx from Covid relief
- Translates to rising cost for manufacturers and they may pass on the costs to consumers
- Shrinkflation: Consumers are generally price elastic and manufacturers would be generally reluctant to increase prices

Industry Overview

Positive Outlook Driven By Changing Consumer Preferences



Market Value Of Non-alcoholic Beverages



Source: Statista Consumer Market Outlook

Growth Driver: Healthier Beverage

- **Healthier Beverages:** Consumers are getting more health conscious about their sugar intake from regular soft drinks
- Consumers are option for healthier options like low-in-sugar soft drinks and fruit-juices

Growth Driver: Sustainability

- **Sustainability:** Sustainable credentials are a source of competitive advantage
- Drinks Industry Sustainability index scored rated the beverage industry 4.8 out of 10 which it was considerably behind
- Consumers are more concerned about the wellbeing of the environment

Growth Driver: Technology

- **Technology:** Prolonging shelf-life and nutritional contents of beverages
- High-pressure processing enables shelf-life extension from 3-5 days to 60-120 days

Industry Overview

Porter's Five Forces

Rivalry Among Existing Competitors (HIGH)

There is intense rivalry between firms due to similar business strategies and companies introducing many products to cater to different customer needs.

Bargaining Power of Suppliers (LOW)

There are many suppliers. For beverage manufacturers, it is all about price and how efficient of a delivery job the suppliers do. Companies are willing to switch suppliers whenever is necessary.

Threat of New Entrants (LOW)

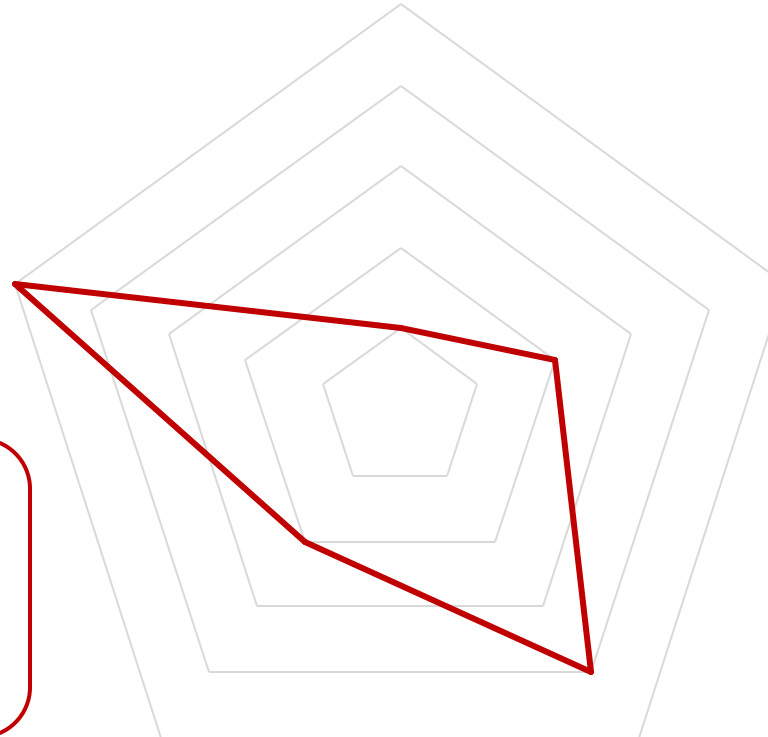
High investment needed. In addition, firms have entered into exclusive retail chain distribution agreements and obtained economies of scale.

Threat of Substitutes (LOW)

Although brand loyalty may not be the main factor in preventing consumers from switching to other competitors, the product innovation and differentiation in the industry is relatively flat.

Bargaining Power of Buyers (LOW-MED)

- Individual: Low switching costs, little influence over brand
- Retailers: Slightly higher bargaining power and influence due to big purchases (events, restaurants etc.)





3. Analysis of Financing Activities

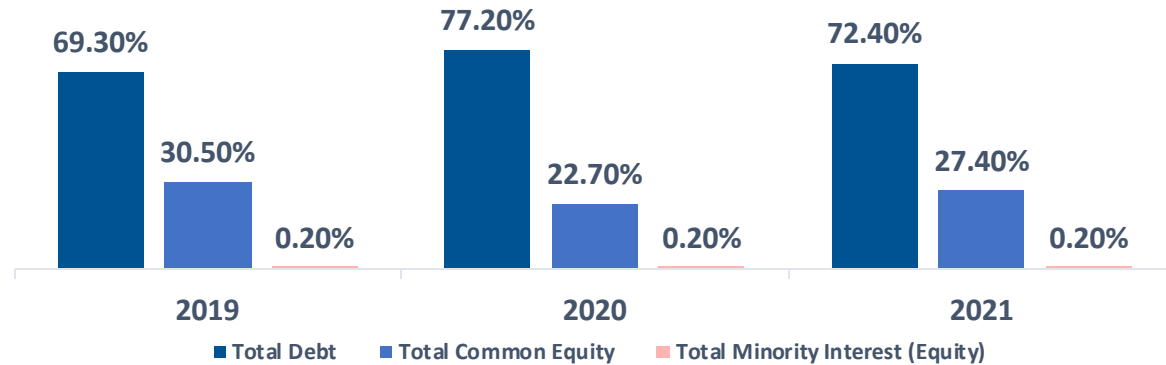


Financing Activities

Capital Structure / Debt to Equity Ratio

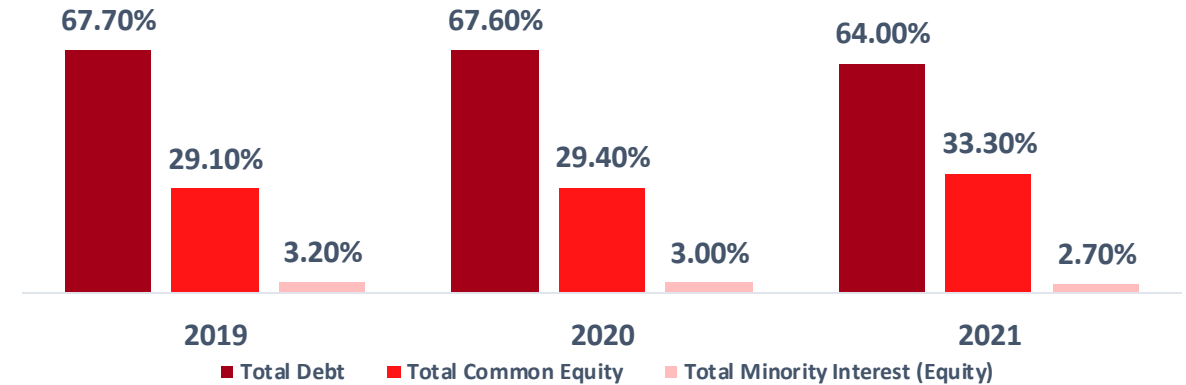


Capital Structure (NASDAQ:PEP)



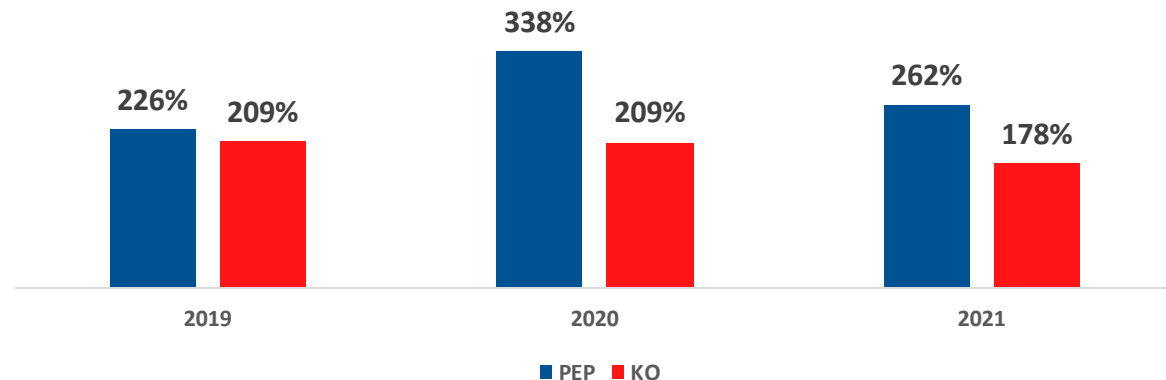
Source: CapitalIQ

Capital Structure (NYSE:KO)



Source: CapitalIQ

Debt to Equity Ratio (KO & PEP)



Source: CapitalIQ

Debt to Equity Ratio for Pepsi increased by **112%** from **FYE 2019** to **FYE 2020** and decreased by **76%** from **FYE 2020** to **FYE 2021**. This is due to a large increase in LT borrowings by **11,776 million**.

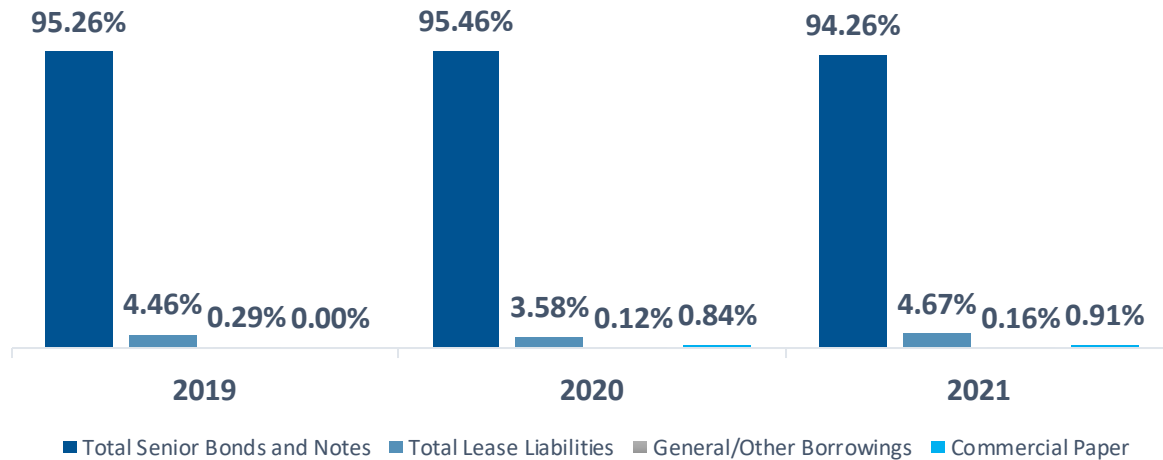
Debt to Equity Ratio for Coca-Cola remains **constant** from **FYE 2019** to **FYE 2020** and decreased by **31%** from **FYE 2020** to **FYE 2021**.

Financing Activities

Debt Composition

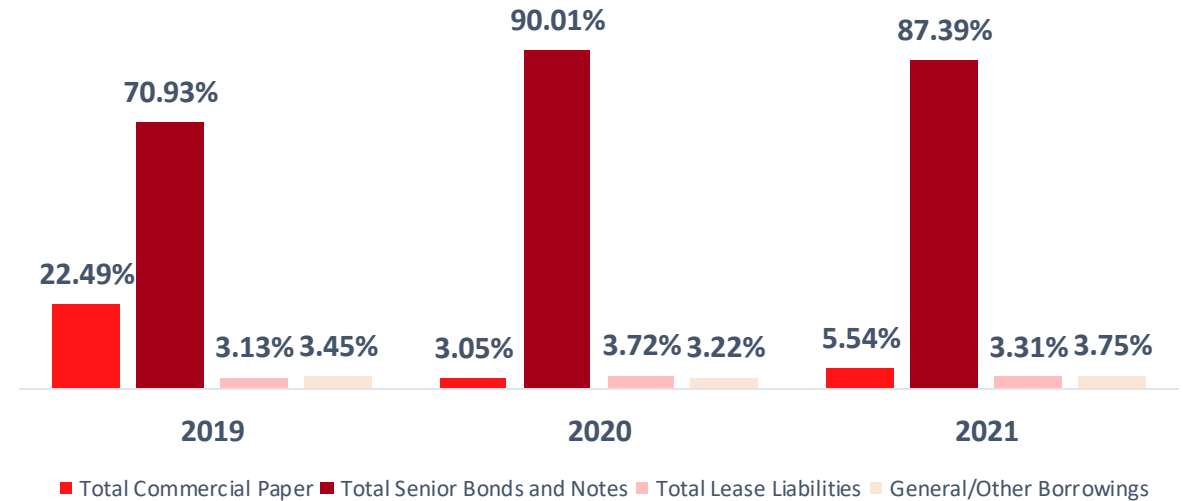


Debt Composition (NASDAQ:PEP)



Source: CapitalIQ

Debt Composition (NYSE:KO)



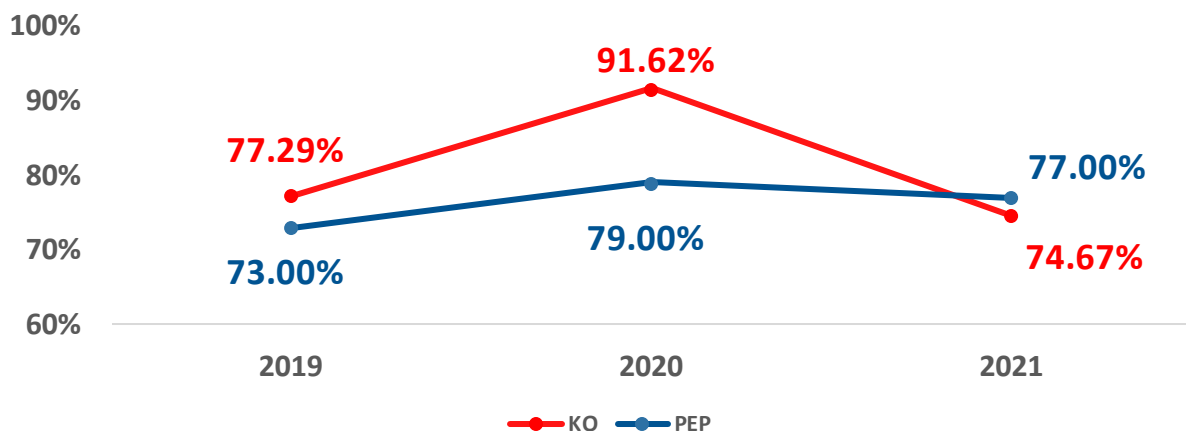
Source: CapitalIQ

- The main source of debt financing used are Senior Bonds and Notes
- In 2019, KO has **10,007 million** worth of outstanding commercial paper borrowings, before converting to Senior Bonds and Notes

Financing Activities

Dividend Payout Ratio

Dividend Payout Ratio



Source: CapitalIQ

KO	2019	2020	2021
Dividend Per Share	1.6	1.64	1.68
Earnings Per Share	2.07	1.79	2.25
Dividend Payout Ratio	77.29%	91.62%	74.67%

PEP	2019	2020	2021
Dividend Per Share	3.79	4.02	4.25
Earnings Per Share	5.2	5.12	5.49
Dividend Payout Ratio	72.88%	78.52%	77.41%

- Average Dividend Payout Ratio in Non-Alcoholic Beverage Industries in 2021 = **76.32%**
- KO has a substantial increase in the Dividend Payout Ratio from **77.29%** in **2019** to **91.62%** in **2020**
- Decrease in Earnings Per Share (EPS) from **2.07** to **1.79**, while the Dividend Per Share (DPS) remains relatively constant from **1.6** in **2019** to **1.64** in **2020**

Investments by Pepsi

Developed a strategic transformation plan centered around sustainability and human capital, **PEP+**

- Investment towards positive agriculture and positive value chain
- Recently Invested **14 million** in new packaging innovations to reduce 250 virgin plastic from the supply chain
- Intends to invest **150 billion** by 2030 in renewable energies, electricity grids, and energy storage

How does Pepsi fund these investments?

- Issued a 1.25 billion 10-year green bond in July 2022 (Debt Financing)

Factors affecting future investments

- Environmental sustainability
- Net Zero Emissions
- Sustainable Agriculture

Investments by Coca-Cola

Increased Focus on ESG, mainly environmental sustainability and workplace diversity

- Investment of **500 million** in Mexico to expand recycling infrastructure, which would expand refillable capacity
- Investment of **13 million** in the installation of solar panels in India
- Investment into 3-phase solar development project in Wakefield, UK.

How does Coca-Cola fund these investments?

- Mainly through debt financing

Factors affecting future investments

- Net Zero Emissions (by 2050)
- Environmental sustainability



4. Fundamental Analysis

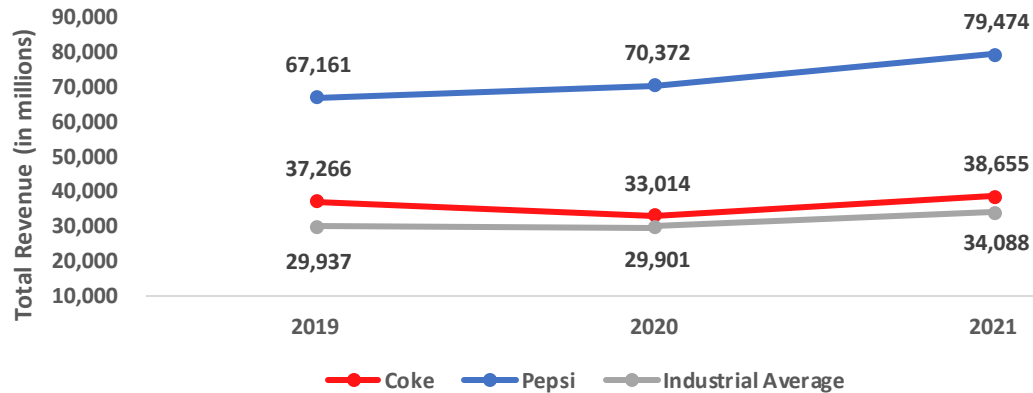


Fundamental Analysis

Accounting Information: Total Revenue, EBITDA and Net Income

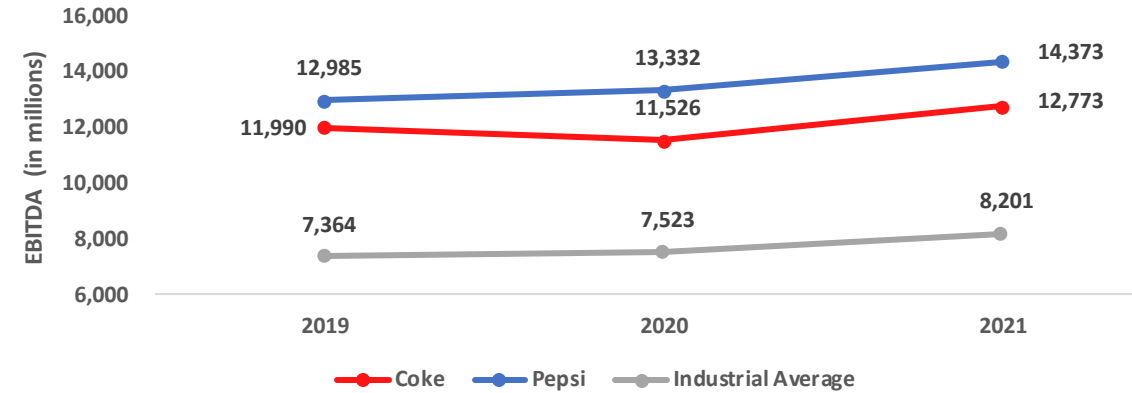


Total Revenue



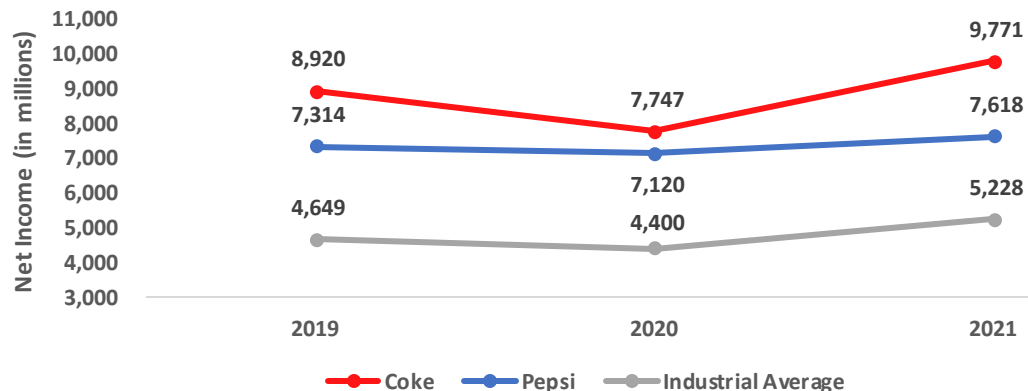
Source: CapitalIQ

EBITDA



Source: CapitalIQ

Net Income



Source: CapitalIQ

Analysis

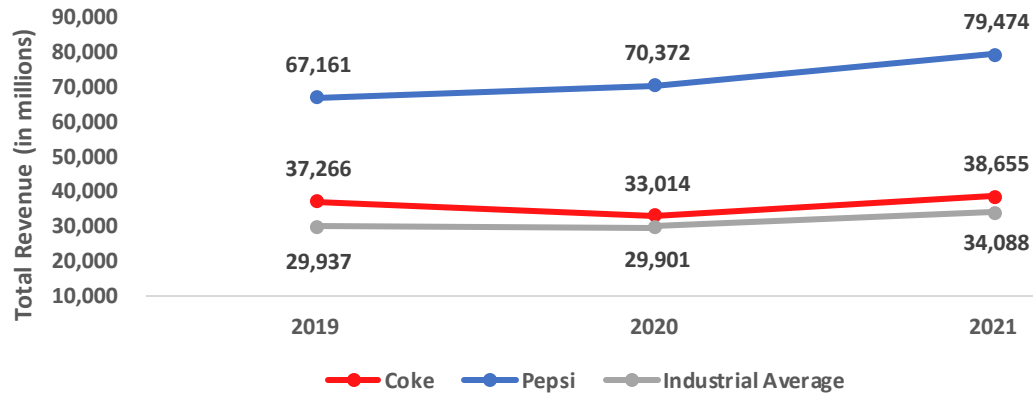
- Overall:** Both companies performed better than IA for TR, EBITDA & NI over the 3 years
- Revenue:** In 2020, Coke's dropped while Pepsi's was more resilient
 - Pepsi's types of products are more diversified which helped in mitigating the risk of a fall in demand for beverages
 - Nonetheless, both companies' revenue recovered in 2021

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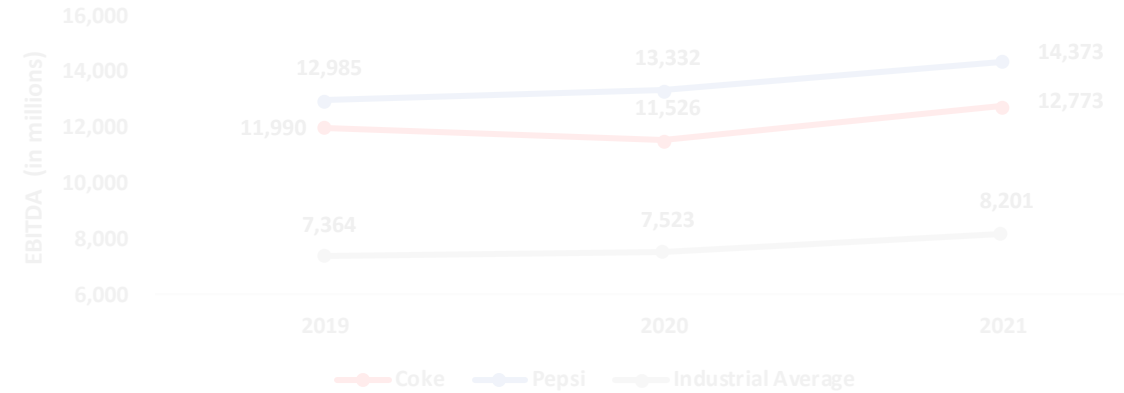


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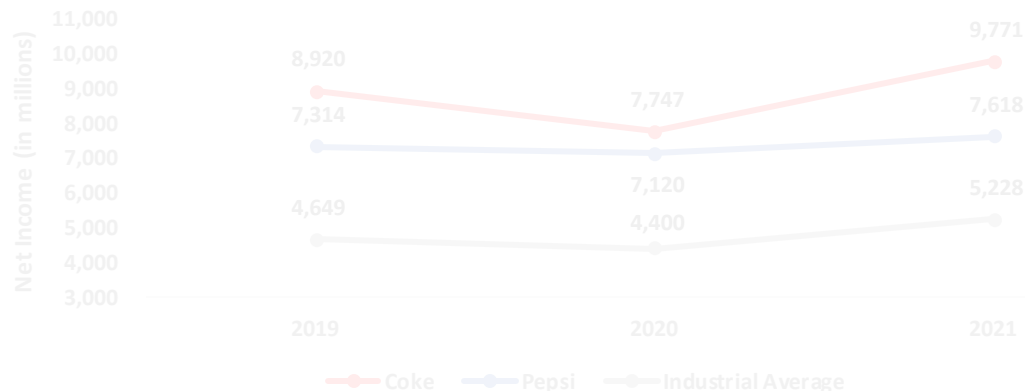
Source: CapitalIQ

EBITDA



Source: CapitalIQ

Net Income



Source: CapitalIQ

Analysis

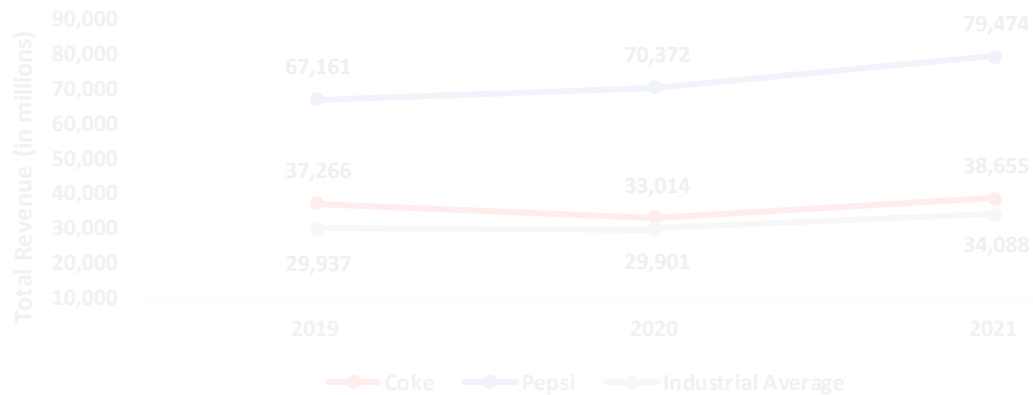
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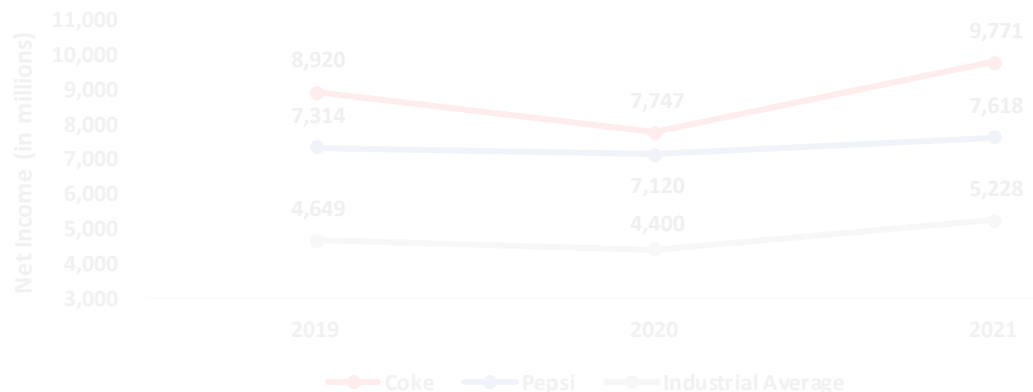


Total Revenue



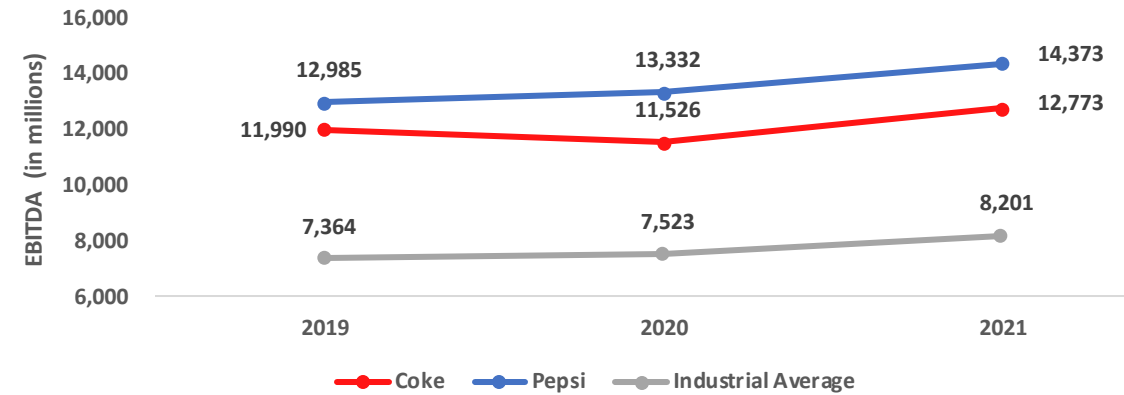
Source: CapitalIQ

Net Income



Source: CapitalIQ

EBITDA



Source: CapitalIQ

Analysis (cont'd)

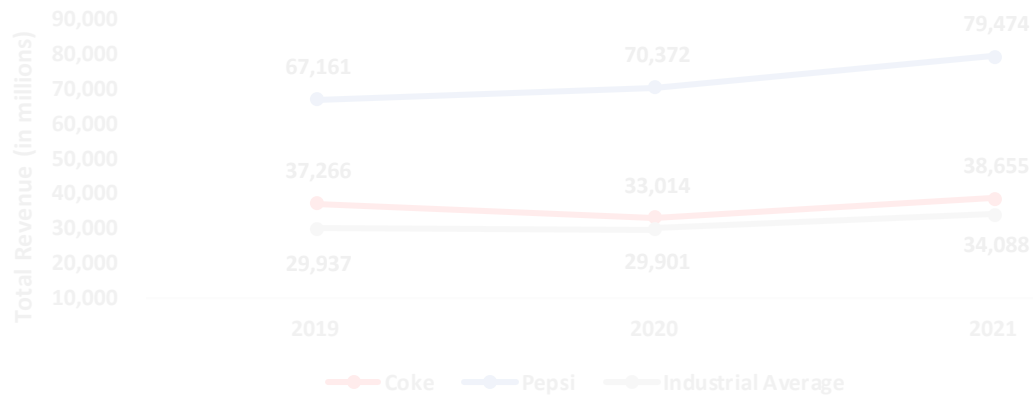
- EBITDA:
 - Pepsi's revenue was 2x more than Coke for the past 3 years
 - However, Pepsi's EBITDA was slightly higher than Coke's
 - **Coke has a stronger ability to generate earnings from its operations than Pepsi**

Fundamental Analysis

Accounting Information: Total Revenue, EBITDA and Net Income

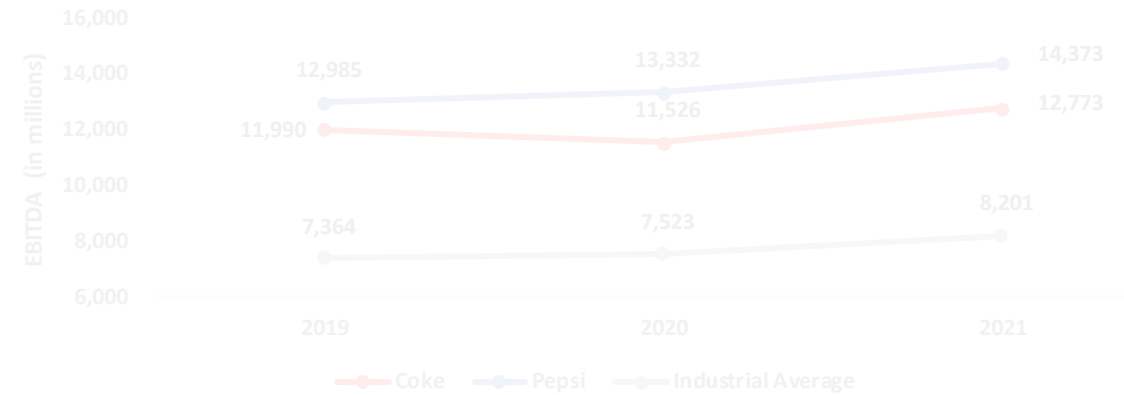


Total Revenue



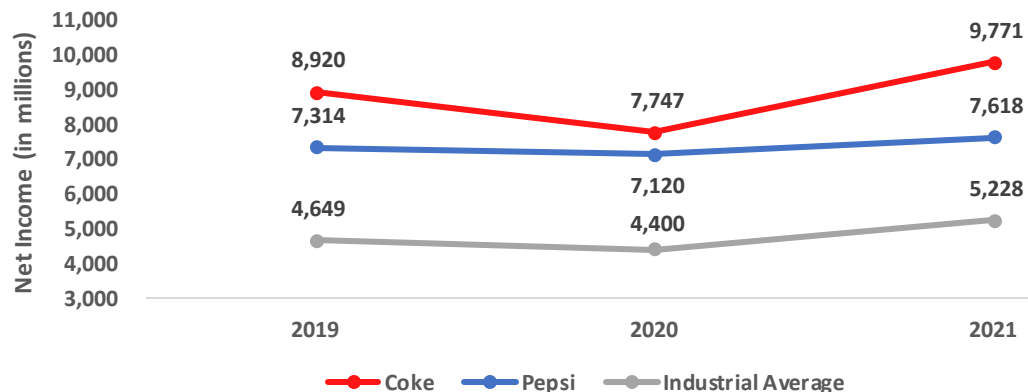
Source: CapitalIQ

EBITDA



Source: CapitalIQ

Net Income



Source: CapitalIQ

Analysis (cont'd)

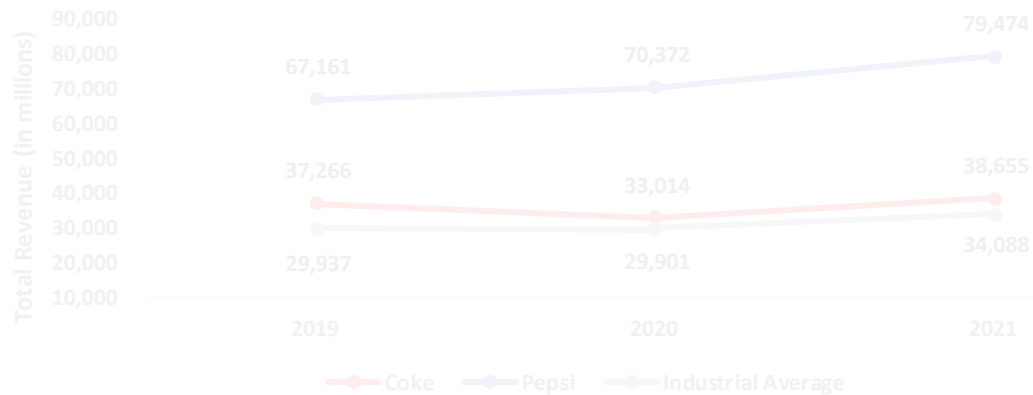
- Net Income:
 - Industry took a hit in 2020 due to Covid-19 but there was a recovery in 2021 for all parties, especially Coke
 - **Coke's drop in NI for 2020 was mainly due to the drop in revenue. In 2021, its NI shot up due to higher revenue & higher GPM than in 2020**

Fundamental Analysis

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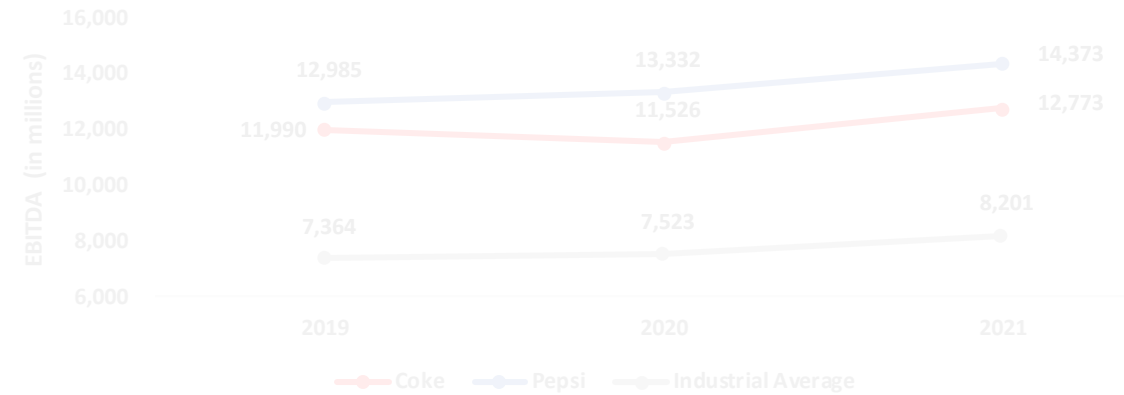


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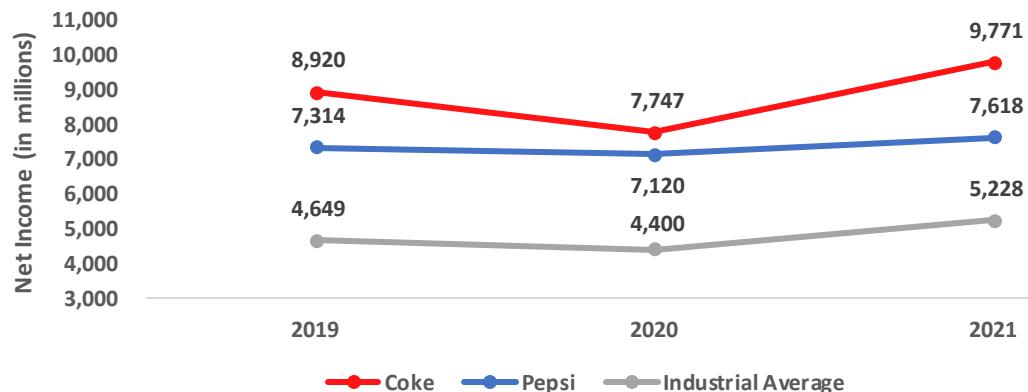
Source: CapitalIQ

EBITDA



Source: CapitalIQ

Net Income



Source: CapitalIQ

Analysis (cont'd)

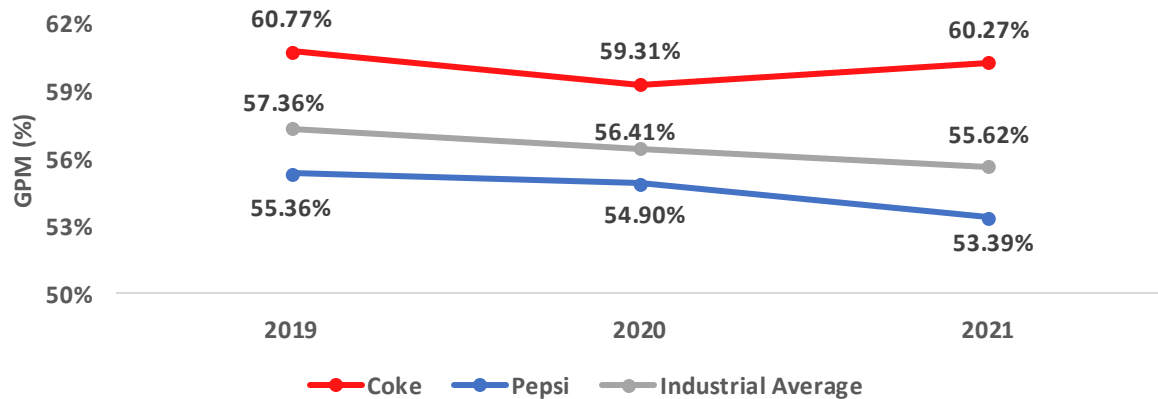
- Net Income (cont'd):
 - Pepsi's drop in NI was mainly due to higher interest expenses in 2020 & R&D expenses comprises ~10% of Pepsi's NI for the 3 years
 - **However, Pepsi's RORC is significantly higher than IA by an average of 1.4x**

Fundamental Analysis

Margins: Gross Profit Margin & Levered Free-Cash-Flow Margin



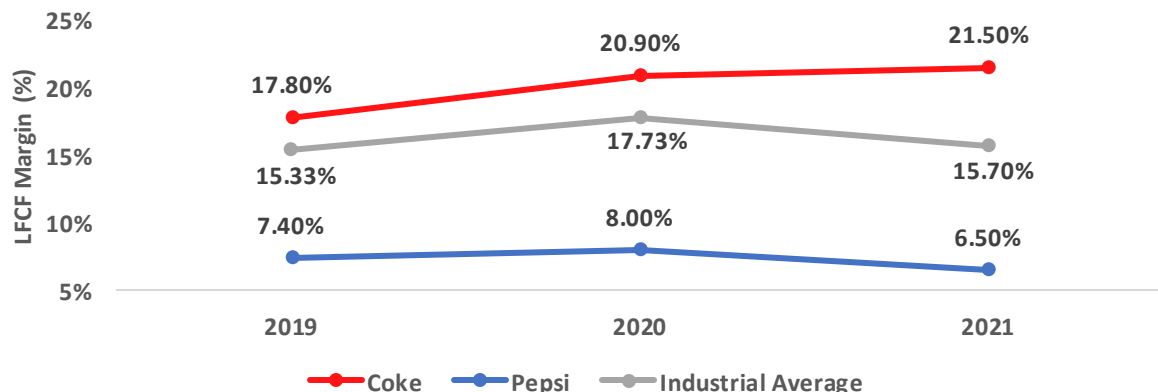
Gross Profit Margin



Source: CapitalIQ

- GPM shows how efficient the company can manage its COGS relatively to its revenue generated
- Coke is higher than IA but Pepsi is not**
- One distinction of Coke that allows it to have such a high GPM is because of its business model**
 - Thus, Coke's COGS are tighter (mainly coming from upstream value chain)

Levered Free-Cash-Flow Margin



Source: CapitalIQ

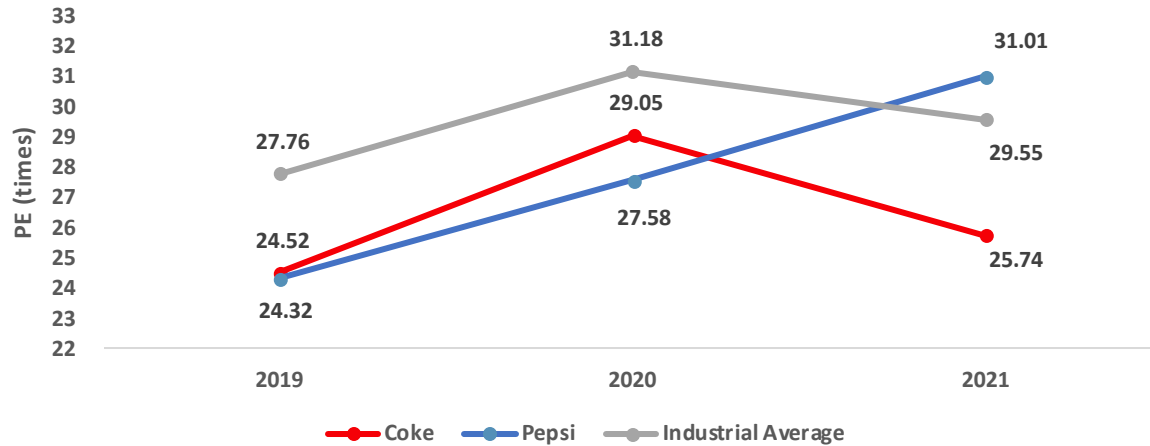
- LFCF measures the company's ability to expand its business and to pay returns to shareholders via the money generated through operations
- Having a strong cash flow is important not just to reward investors but also liquidity wise for the company
- $LFCF = EBIT - \text{Change in NWC} - \text{CAPEX} - \text{Interest Expenses (Paid)}$
- $LFCFM = LFCF / \text{Revenue}$
- Coke has a high and increasing LFCFM compared to IA and Pepsi mainly due to Pepsi having 3x more CAPEX than Coke**

Fundamental Analysis

Valuation: Price-to-Earnings



Price-to-Earnings



Source: CapitalIQ & Yahoo Finance

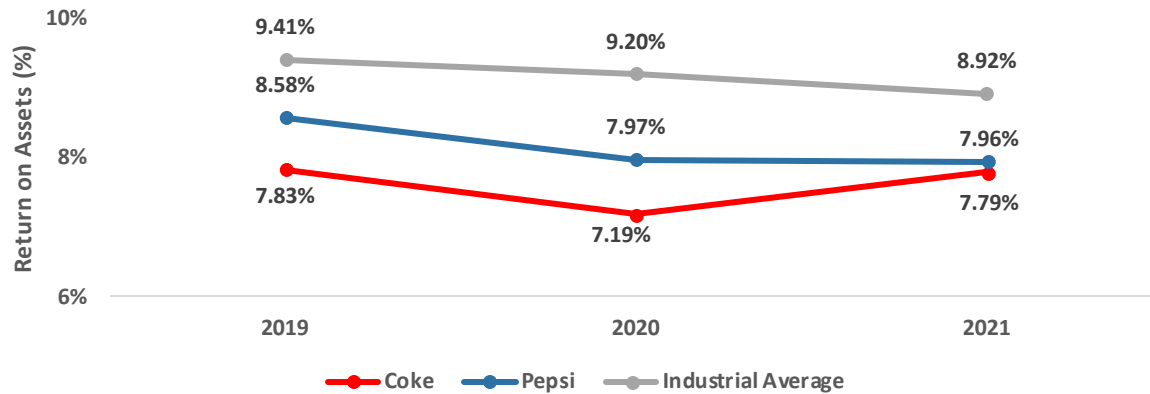
- Coke & Pepsi's PE are generally lower than IA but both mature companies
- The higher the PE ratio, the higher the price tag of a business, relative to its trailing earnings. A **high PE means that buyers have a higher opinion of the business's prospects, relative to stocks with a lower PE**
- **Pepsi's PE has been climbing steadily for the past 3 years**

Fundamental Analysis

Management Effectiveness Ratios: ROA & ROE



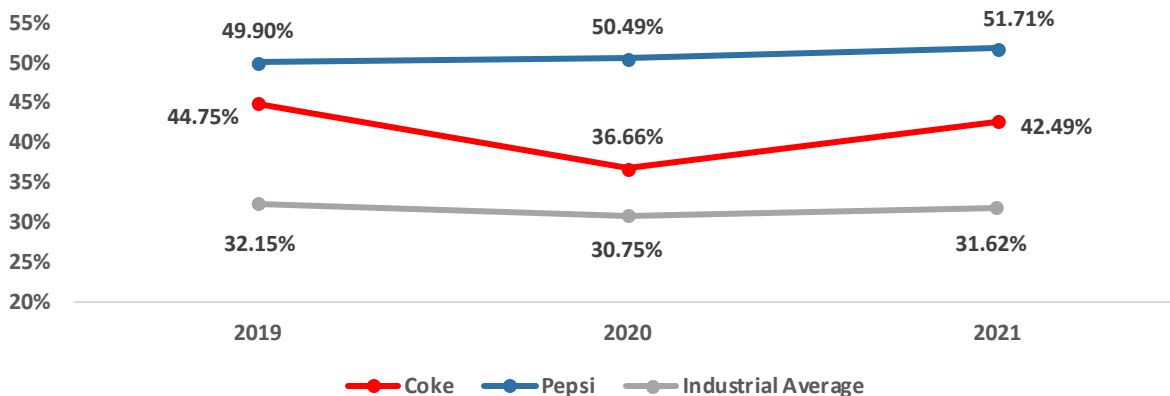
Return on Assets



Source: CapitalIQ

- ROA shows how efficient & profitable companies are in relation to their total assets
- Both are doing worse compared to Industrial Average
- COVID has affected both companies in 2020
- The % drop is lesser in PEP than KO; PEP is more stable than KO
- KO is more volatile and more % changes
- PEP sustained the drop

Return on Equity



Source: CapitalIQ

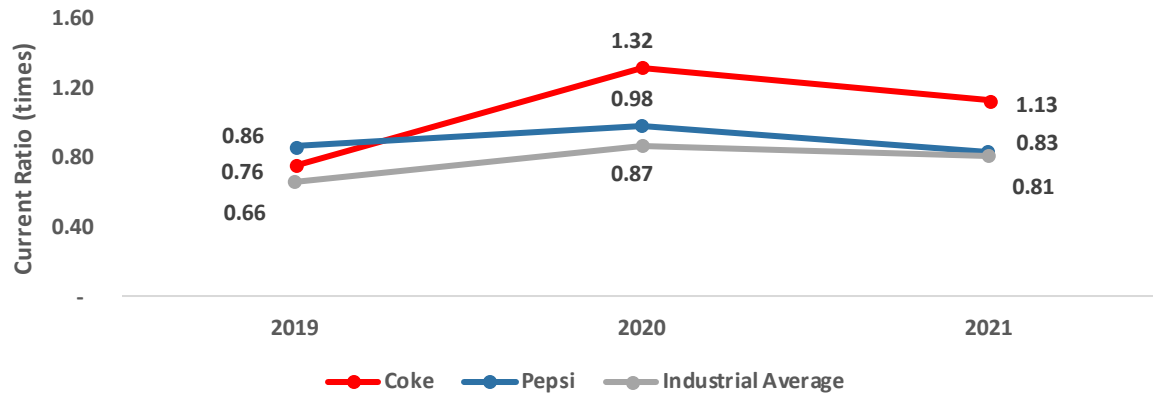
- ROE shows how efficiently companies use equity to generate revenue
- Both are doing better than Industrial Average
- PEP has been consistent with its ROE but KO has more % changes
- Attributed to KO's significant decrease in Net Income and PEP's increased Debt-to-Equity Ratio
- Debt increases, Equity shrinks, ROE increases

Fundamental Analysis

Liquidity Ratios: Current Ratio & Quick Ratio



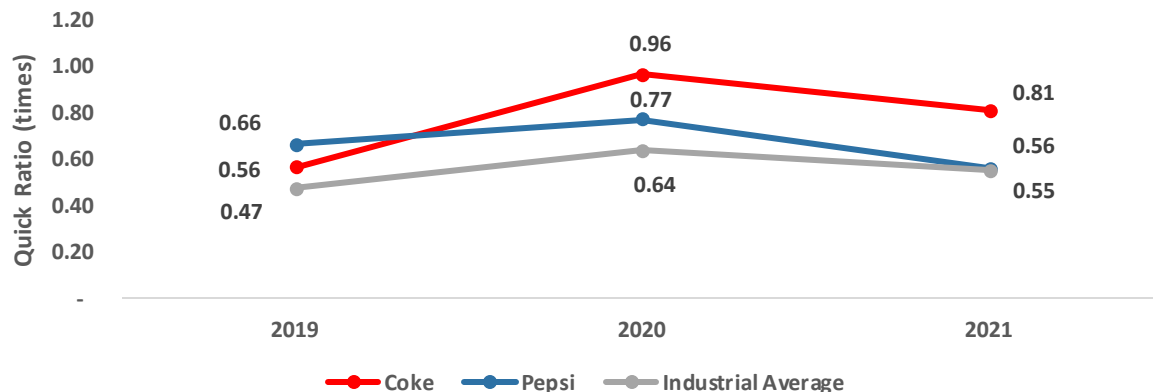
Current Ratio



- CR shows **how effectively companies pay off short-term debt**
- Both are relatively **better than Industrial Average**
- PEP has been almost consistent; **stable pay-off of short-term debt**
- **KO has significant % increase** (now >1); more assets than liabilities and easily pay-off current liabilities

Source: CapitalIQ

Quick Ratio



- QR shows **how effectively companies pay off short-term debt using more liquid assets**
- Similar trend is seen here
- Both however still <1
- **KO has relatively more liquid assets**
- Interest rates were low in 2020 and long-term debts are cheaper than short-term

Source: CapitalIQ

5. Stock Valuation



Dividend Discount Model

Part 1 : Calculating Growth

TWO methods
used to
calculate
growth:

**1. Historical
Average Method**

**2. ROE & Payout
Ratio Method**

1. Historical Average Method

KO

Year	2017	2018	2019	2020	2021
Div Payout	0.37	0.39	0.4	0.41	0.42
Annual Dividends	1.48	1.56	1.6	1.64	1.68
Growth		5.41%	2.56%	2.50%	2.44%
Average Growth Rate	3.23%				

PEP

Year	2017	2018	2019	2020	2021
Div Payout	\$0.81	\$0.93	\$0.96	\$1.02	\$1.08
Annual Dividends	\$3.22	\$3.71	\$3.82	\$4.09	\$4.30
Growth		15.22%	2.96%	7.07%	5.13%
Average Growth Rate	7.60%				

Dividend Discount Model

Part 1 : Calculating Growth

2. ROE & Payout Ratio Method

	ROE	DPR	g
KO	40.89%	74.67%	10.36%
PEP	49.47%	77.00%	11.38%

Getting our average growth rate:

70% Historical Average Method

30% ROE & Payout Ratio Method

Assumption: Constant Growth. Why?

Why did we assign a higher weightage to Historical Average Method?

- Both KO and PEP are well-matured companies
- 50 yrs+ of consistent dividend payout increase

Final Growth Rate derived:

KO Growth Rate: **8.22%**

PEP Growth Rate: **8.73%**

Dividend Discount Model

Part 2: Calculating Required Rate of Return

Model Used: Capital Asset Pricing Model

	Risk-Free Rate	Market Rate	Beta	Ks
KO	3.91%	16.65%	0.57	11.17%
PEP	3.91%	16.65%	0.57	11.17%

data extracted on 5 year average

12 Oct '22

from S&P 500

- Market Rate of KO & PEP (both US Market) are the **SAME**
- Beta of KO and PEP are the **SAME**

Thus, the Required Rate of Return (Ks) is the **SAME** for both companies.

Dividend Discount Model

Part 3: Calculating the Present & Intrinsic Value

First, P_0 is determined by discounting future dividend payments.

$$P_0 = D_1 / (K_s - g)$$

KO

Average g of both methods	8.22%
Required Rate of Return (K_s)	11.17%

Intrinsic Value	61.51
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PEP

Average g of both methods	8.73%
Required Rate of Return (K_s)	11.17%

Intrinsic Value	191.36
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Compare to actual Current Price & derive the % difference

Current Price (P_0)	55.14 USD
Difference	10.36%

Current Price (P_0)	169.39 USD
Difference	11.48%

Dividend Discount Model

Part 4: Determining Whether the Stocks are Overvalued or Undervalued



Based on the Dividend Discount Model:

PepsiCo has a HIGHER UPSIDE potential than the Coca-Cola Company.



Undervalued by 10.36%



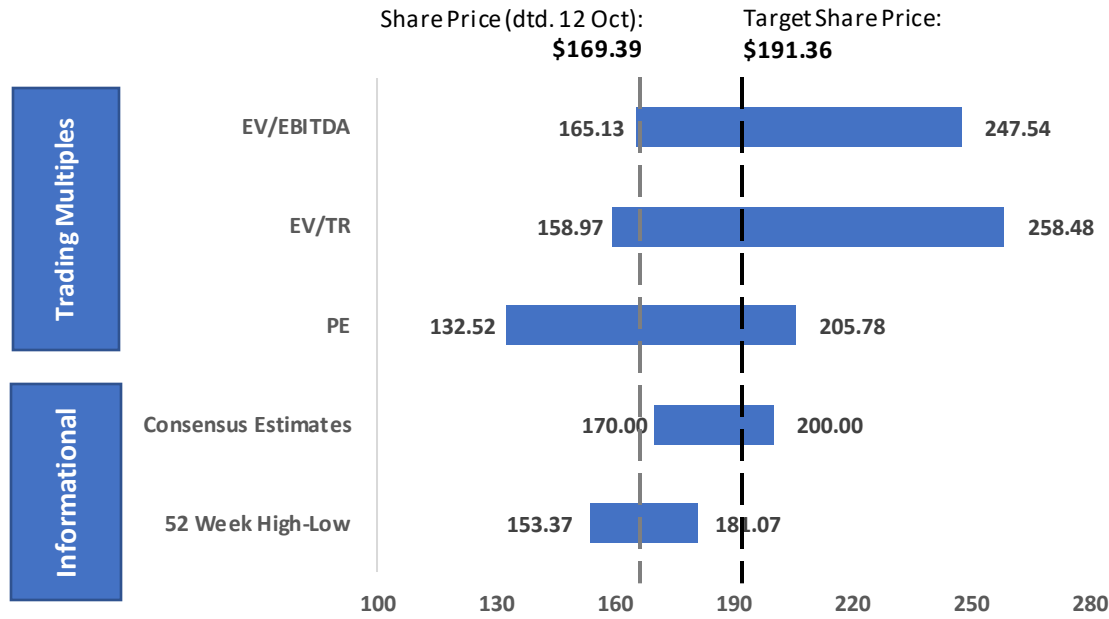
Undervalued by **11.48%**

Valuation

Football Field Valuation

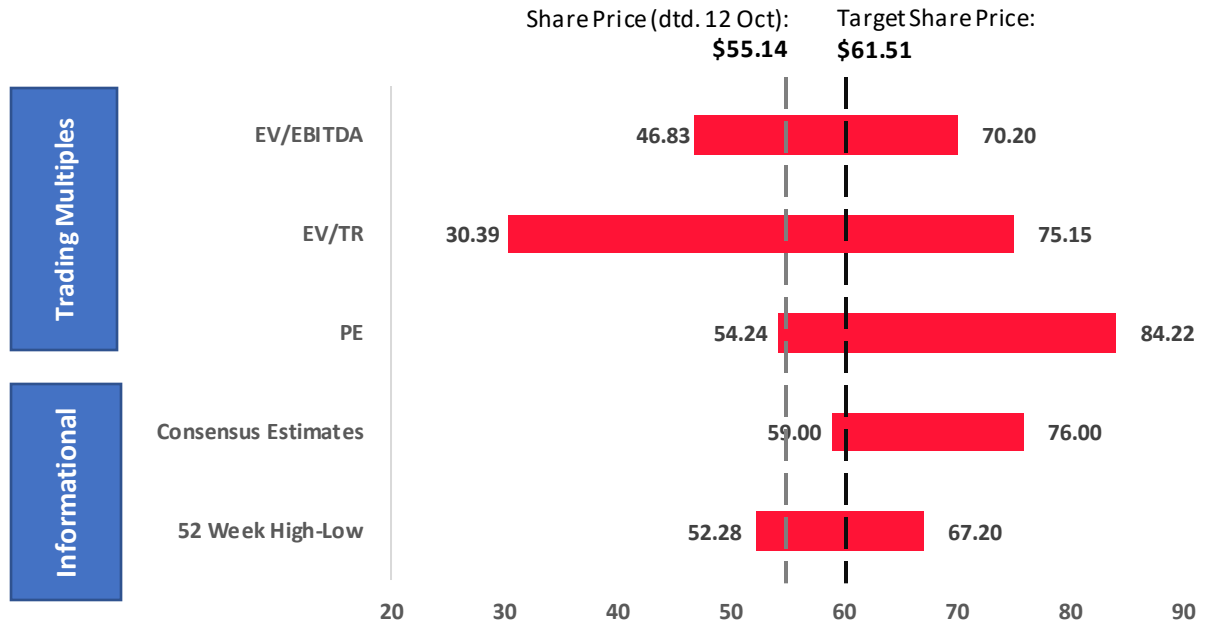


Football Field - PepsiCo



Source: CapitalIQ & Yahoo Finance

Football Field – Coca-Cola



Source: CapitalIQ & Yahoo Finance

- Both Coca-Cola and PepsiCo are undervalued (as per DDM) and are trading within the multiples
- PepsiCo is more undervalued as compared to Coca-Cola based on**
 - Current price to trading multiples** and
 - DDM to current price**



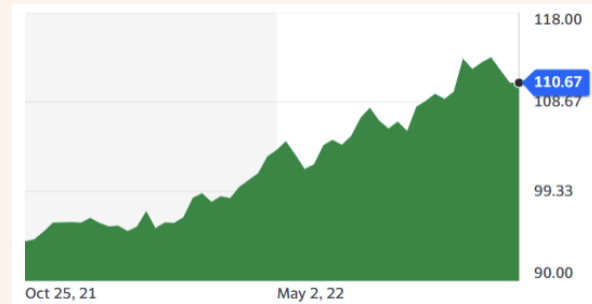
6. Recommendation

Qualitative Analysis

Stronger US Dollar & Diversification

1. Stronger US dollar

- Unfavorable for KO considering two-thirds of sales are derived from international markets, whereas PEP only has 44% from international markets.



1 yr U.S. Dollar Index

2. PEP's diversified portfolio of products

Implication 1: PEP's future outlook is more aligned with the consumer's shift in taste.

- The trend towards a decline in soft drinks sale.

Implication 2: More flexibility in the development of new products and the acquisition of new brands as well as higher opportunities for future growth.

Qualitative Analysis

Defensive Nature of Stock

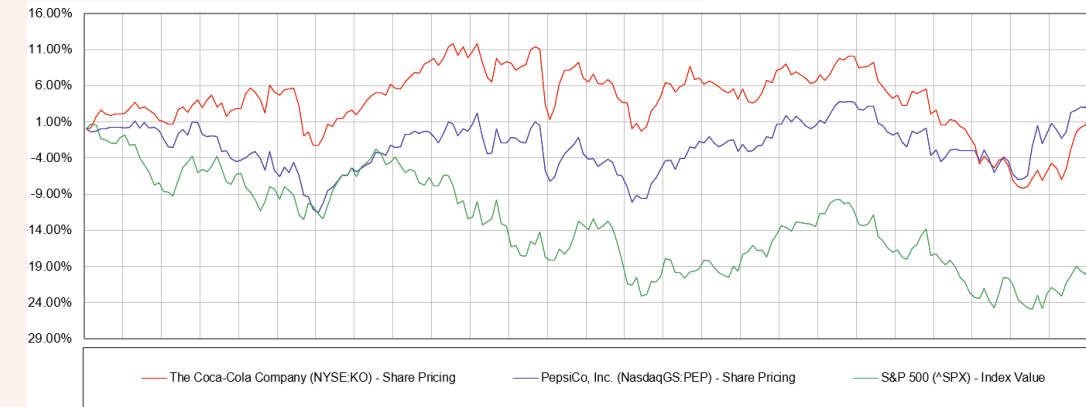


3. Defensive nature of the stocks

- Both KO and PEP are defensive stocks
- Both stocks have been outperforming the market (share price) as they have managed to avoid the gravitational pull of the market pullback

Why defensive stocks are fairly ideal now:

- Good hedge against market volatility
- Remained recession and inflation resilient
- Investors can continue to expect a consistent dividend payout



YTD % change in share price of KO & PEP compared to S&P 500

- While both stocks are defensive, **the difference in price action between the shares of both companies tells us buyers have defended PEP shares much more than KO.**

Summary of Justifications

PepsiCo vs Coca-Cola



PepsiCo.Inc

BUY

Potential Upside: 11.48%

Coca-Cola

BUY

Potential Upside: 10.36%

Recommendation: PepsiCo a **BETTER BUY** than Coca-Cola. Why?

Fundamental Analysis

PEP:

- Consistent and Stable numbers
- Resistant to external shocks

KO:

- Greater % changes
- More responsive to external environment

Investing Activities

PEP is better than KO in terms of

- Strategical Planning (a concrete pipeline)
- Investment Financing (Green Bond)

Stock Valuation

PEP is more undervalued than KO based on:

- Intrinsic Valuation
- Relative Valuation: Current price of stock to its trading multiples

Qualitative Analysis

1. Stronger US dollar
2. PEP's diversified portfolio of products
3. Defensive nature of PEP



NASDAQ: PEP

Current Price: \$169.39

Target Price: \$191.36

Recommendation: Buy

Potential Upside: 11.48%

Appendix

Dividend Discount Model



DIVIDEND DISCOUNT MODEL

Assumption: Constant Growth

[Historical Average Method]

KO

Year	2017	2018	2019	2020	2021
Div Payout	0.37	0.39	0.4	0.41	0.42
Annual Dividends	1.48	1.56	1.6	1.64	1.68
Growth		5.41%	2.56%	2.50%	2.44%
Average Growth Rate	3.23%				

KO

Average g of both methods	8.22%
Required Rate of Return (Ks)	11.17%

**uses 70% Historical ave method, 30% ROE method*

Intrinsic Value	61.51
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using $P_0 = D_1 / (K_s - g)$

Current Price (P0)	55.14	USD
Difference	10.36%	

(as at 12 Oct '22)

Intrinsic Value higher than Current Price, stock is undervalued

PEP

Year	2017	2018	2019	2020	2021
Div Payout	\$0.81	\$0.93	\$0.96	\$1.02	\$1.08
Annual Dividends	\$3.22	\$3.71	\$3.82	\$4.09	\$4.30
Growth		15.22%	2.96%	7.07%	5.13%
Average Growth Rate	7.60%				

PEP

Average g of both methods	8.73%
Required Rate of Return (Ks)	11.17%

**uses 70% Historical ave method, 30% ROE method*

Intrinsic Value	191.36
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using $P_0 = D_1 / (K_s - g)$

Current Price (P0)	169.39	USD
Difference	11.48%	

(as at 12 Oct '22)

Intrinsic Value higher than Current Price, stock is undervalued

[ROE & Payout Ratio Method]

$$g = (1 - \text{DPR}) * (\text{ROE})$$

**as at 31 Dec 2021*

	ROE	DPR	g
KO	40.89%	74.67%	10.36%
PEP	49.47%	77.00%	11.38%

[Calculating Ks using CAPM]

$$K_s = K_{rf} + (K_m - K_{rf}) B$$

	Risk-Free Rate	Market Rate	Beta	Ks
KO	3.91%	16.65%	0.57	11.17%
PEP	3.91%	16.65%	0.57	11.17%

data extracted on 5 year average

12 Oct '22

from S&P 500

The reasons why we assigned a higher % to Historical Ave Method is:

(1) both are mature companies (2) 50 yrs+- of consistent dividend payout increase

Why have we assumed constant growth?

(1) both are mature companies (2) 50 yrs+- of consistent dividend payout increase

Appendix

Football Field Valuation



Workings for EV/Revenue	PEP	KDP	MNST	KO
Average	3.41	5.18	8.43	7.21
High	3.62	5.35	9.02	7.53
Low	3.17	4.95	7.52	6.74
Close	3.62	5.33	9.02	7.53

Avg	For Coke	For Pepsi
Max	8.43	8.43
Min	3.41	5.18
Median	5.18	7.21

Workings for EV/EBITDA	PEP	KDP	MNST	KO
Average	18.07	17.45	15.89	23.83
High	18.93	18.53	16.41	25.86
Low	16.94	16.26	15.11	21.58
Close	18.93	18.53	16.41	25.86

Avg	For Coke	For Pepsi
Max	23.83	23.83
Min	15.89	15.89
Median	17.45	18.07

Workings for PE			
Price of Stocks at 31 Dec (adjusted close)	2019	2020	2021
MNST	63.55	92.48	96.04
KDP	27.19	30.73	36.10
KO	50.75	52.00	57.92
PEP	126.45	141.21	170.24
PE Calculations (Price/EPS)	2019	2020	2021
KO	24.52	29.05	25.74
MNST	31.31	35.03	37.37
KDP	30.89	33.04	24.07
PEP	24.32	27.58	31.01
Industrial Average	27.76	31.18	29.55

Avg	For Coke	For Pepsi
Max	37.37	37.37
Min	24.07	24.07
Median	31.01	25.74

	Coke	Pepsi	
EV	2,845,439,000,000.00	277,501,000,000.00	Source: CapitalIQ
No of shares	4,335,473,308.00	1,383,451,400.00	Source: Annual report
Net Debt (millions)	31,620.00	36,390.00	Source: CapitalIQ

Implied Share Price	Coke		Pepsi		Workings
	High	Low	High	Low	
PE	84.22	54.24	205.78	132.52	Industry Mutiple*Net Income / No. of Shares
EV/TR	75.15	30.39	258.48	158.97	Industry Mutiple*Revenue-Net Debt= EV then EV/No of Shares
EV/EBITDA	70.20	46.83	247.54	165.13	Industry Mutiple*EBIT-Net Debt= EV then EV/No of Shares

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