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Financial Analytics

BlackRock – The Financial Titans

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Introduction

Global investment management company BlackRock was established in 1988 by eight businessmen under the direction of Larry Fink. For institutional investors, financial advisers, and individual investors throughout the world, the company manages assets. With more than \$10 trillion in assets under management by 2022, BlackRock has expanded to become the largest asset manager in the world. BlackRock is a financial giant with more than \$10 trillion in assets, making it the largest investor on earth. 1/10th of the world's economic activity is managed by BlackRock. Its stock price has climbed by 9698% since its IPO in 1999. Most S&P500 firms own 5% or more. AUM (assets under management) for institutional investors is close to 60%. ALADDIN is the acronym for Asset, Liabilities, Debt, and Derivative Investment Network. It is a sophisticated trading algorithm that is BlackRock's hidden weapon. A team of engineers, mathematicians, and developers supervise and keep an eye on the 5000 computers that make up the Aladdin risk-evaluation and risk-management system, which runs continuously. Aladdin was consulted during the 2008 global financial crisis by all the major banks, the head of the Fed Reserve, and the US Government. Aladdin prevented the financial market from collapsing entirely, which was crucial in the crisis.

History:

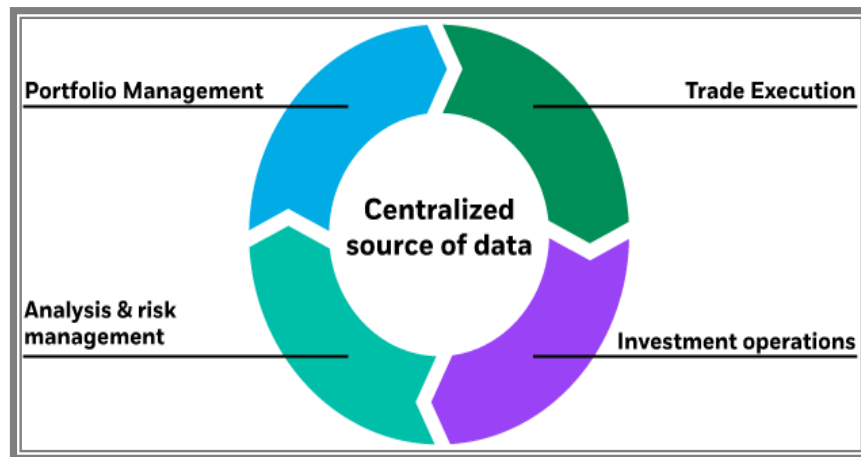
Blackstone Financial Management, a division of Blackstone Group, which later became BlackRock, was established in 1988. The company split out from Blackstone in 1994, and in 1995 it adopted the name BlackRock. In its early years, BlackRock mainly offered institutional clients services for managing fixed-income investments. With time, the company increased the range of products it offered, including index-based and passive investment products, as well as equities and alternative investing techniques. A fixed-income asset management company called BlackRock was founded in New York City in 1988. Over time, the company expanded into other asset classes including equities and alternative investments. BlackRock went public on the New York Stock Exchange (NYSE) in 2006 for \$14 per share after

PNC Financial Services Group acquired interests in the company in 1999. The company had \$165 billion in assets under management at the end of that year because of its advancing connections with international institutions. BlackRock starts to offer its proprietary technology, Aladdin, for sale as it sees a potential to transform risk management for the whole sector. Aladdin serves as the foundation upon which BlackRock creates BlackRock Solutions.

- **2006** - BlackRock acquires Merrill Lynch Investment Management, expanding its retail and international presence.
- **2008** - Amidst the financial crisis, the Head of the Federal Reserve Bank of New York asks BlackRock to analyze Bear Stearns' mortgage-backed securities assets and determine their value. BlackRock plays a key advisory role to institutions across the globe seeking to navigate the financial crisis.
- **2009** - BlackRock acquires Barclay's Global Investors (BGI), becoming the world's largest asset manager, with employees in 24 countries. With this acquisition, BlackRock makes the unprecedented move of bringing alpha and index strategies under one roof to provide a wider breadth of solutions for its clients.
- **2018** - BlackRock launches its first AI Lab in Palo Alto to accelerate its use of artificial intelligence and associated disciplines – machine learning, data science, natural language processing – to improve outcomes and drive progress for investors, clients and the firm.

Products & Services:

- Mutual funds, exchange-traded funds (ETFs), individually managed accounts, and alternative investments are just a few of the investment services and products provided by BlackRock.
- Moreover, BlackRock provides its clients with consulting and risk management services.
- BlackRock offers the size and experience to fulfil the needs of individual investors, institutions, and governments globally.
- BlackRock now manages more than \$10 trillion in assets.



- **Portfolio Management** - We construct active asset allocation strategies and whole portfolio solutions across a wide spectrum of commingled funds, separate accounts, model portfolios and outsourcing solutions in the wealth and institutional channels.
- **Trade Execution** - BlackRock's trade execution model involves the centralization of its trading platform, whereby orders are routed to specialized trading desks
- **Analysis & Risk Management** - The Risk and Quantitative Analysis (RQA) team, which evaluates and manages risk based on the controls put in place by main risk owners, as well as Compliance and Financial Controls, are only a few of BlackRock's independent risk and control operations.
- **Investment operations** - Get familiar with the company's many business divisions and investment options. Provide the knowledge and cutting-edge solutions of BlackRock to customers by working with teams throughout the company. Look for inefficiencies in systems, processes, and procedures, and offer suggestions for change.

Mergers and Acquisitions:

BlackRock has made several wise acquisitions over the years to broaden its product line and reach internationally. The company bought Merrill Lynch Investment Managers in 2006, greatly expanding its distribution network and giving its business a far larger size. The investment management division of Barclays Bank was bought by BlackRock in 2009,

greatly expanding the company's capacity for index-based and passive investments. BlackRock has lately undertaken smaller purchases to increase its data and technological capabilities, such as the acquisition of eFront in 2019.

Number ↕	Acquisition date ↕	Company ↕	Country ↕	Price (USD) ↕
1	February 10, 2006	Merrill's Investment Managers division (MLIM)	 United States	\$9.3B
2	January 12, 2009	Barclays Global Investor	 United States	\$13.5B
3	January 15, 2010	Helix Financial Group	 United States	-
4	August 25, 2015	FutureAdvisor	 United States	\$150M
5	April 18, 2016	Money market fund business of Bank of America	 United States	
6	February 1, 2017	Energy infrastructure investment platform of First Reserve Corporation	 USA	
7	June 9, 2017	Cachematrix	 United States	-
8	January 8, 2018	Tennenbaum Capital Partners	 United States	-
9	September 24, 2018	Asset Management Business of Citibanamex	 Mexico	\$350 million
10	October 5, 2019	eFront	 United States	\$1.3 billion in cash
11	February 1, 2021	Aperio	 United States	\$1.05 billion in cash

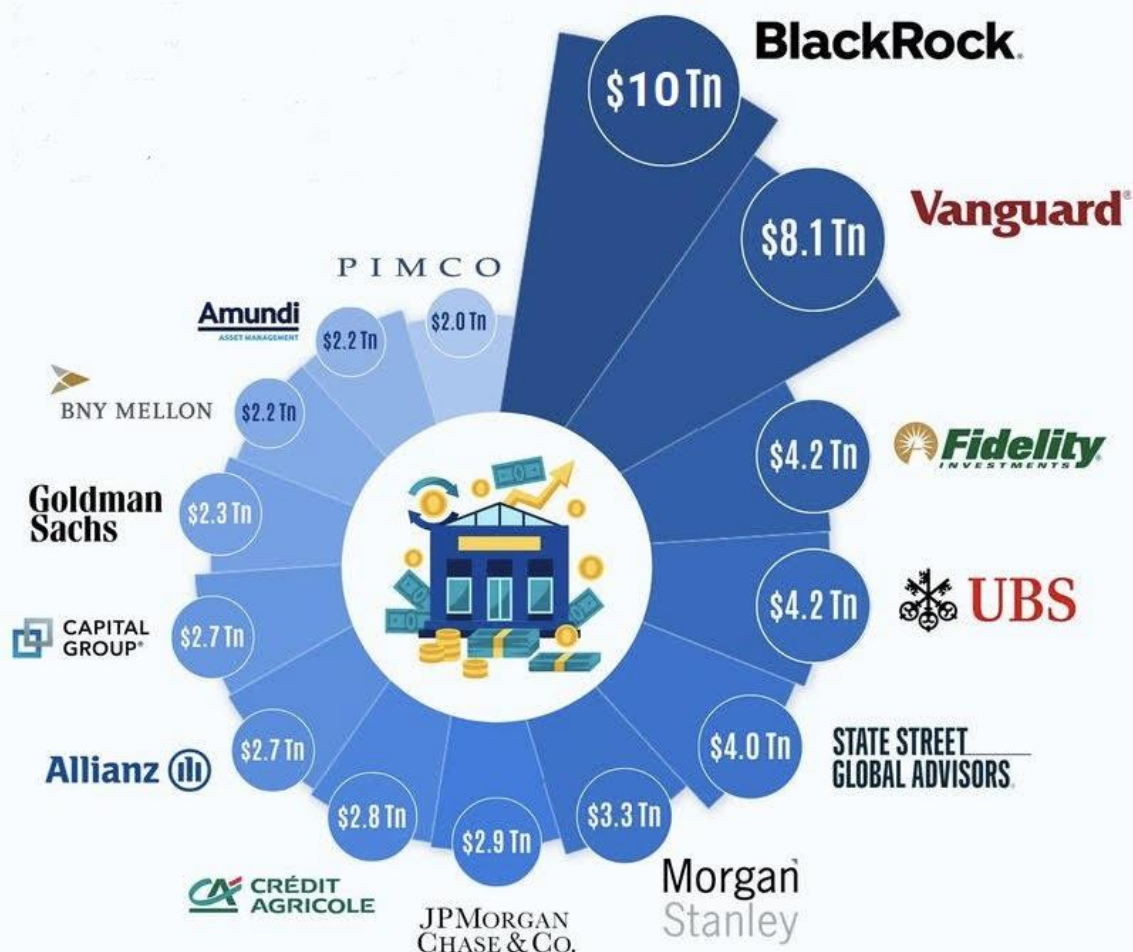
Industrial Competitors:

Competition from other international asset managers like Vanguard, State Street Global Advisors, and Fidelity Investments is fierce for BlackRock. With established international distribution networks, these companies provide comparable investing services and products. By utilizing its size, product innovation, and solid connections with institutional clients, BlackRock has nonetheless managed to hold onto its position as the market leader.

Market Share of the Company:

With over \$10 trillion in assets under management, BlackRock is the biggest asset manager in the world. With a market share of 27.4%, the company's iShares ETF division leads the industry. With a market share of 18.8%, Vanguard is the second-largest supplier of ETFs, after only State Street Global Advisors (15.8%).

WORLD'S LARGEST ASSET MANAGEMENT FIRMS



InvestyWise
@investywise

(\$) Assets Under Management
as of 31st March, 2022, Source: Advratings

Ratio and Valuation Analysis

Income Statement:

BlackRock - Income Statement					
	All number in Thousands				
	TTM	12/31/2022	12/31/2021	12/31/2020	12/31/2019
Total Revenue	17,873,000	17,873,000	19,374,000	16,205,000	14,539,000
Cost of Revenue	9,086,000	9,086,000	9,556,000	7,939,000	7,133,000
Gross Profit	8,787,000	8,787,000	9,818,000	8,266,000	7,406,000
Operating Expenses	2,298,000	2,298,000	2,330,000	1,953,000	1,771,000
Operating Income or Loss	6,489,000	6,489,000	7,488,000	6,313,000	5,635,000
Interest Expense	212,000	212,000	205,000	205,000	203,000
Total Other Income/Expenses Net	-139,000	-139,000	803,000	354,000	258,000
Income Before Tax	6,290,000	6,290,000	8,173,000	6,524,000	5,787,000
Income Tax Expense	1,296,000	1,296,000	1,968,000	1,238,000	1,261,000
Income from Continuing Operations	4,994,000	4,994,000	6,205,000	5,286,000	4,526,000
Net Income	5,178,000	5,178,000	5,901,000	4,932,000	4,476,000
Net Income available to common shareholders	5,178,000	5,178,000	5,901,000	4,932,000	4,476,000
Basic EPS	-	-	38.6	32	28.58
Diluted EPS	-	-	38.07	31.72	28.32
Basic Average Shares	-	-	152,847	154,106	156,641
Diluted Average Shares	-	-	155,024	155,462	158,092
EBITDA	-	6,920,000	8,793,000	7,087,000	6,395,000

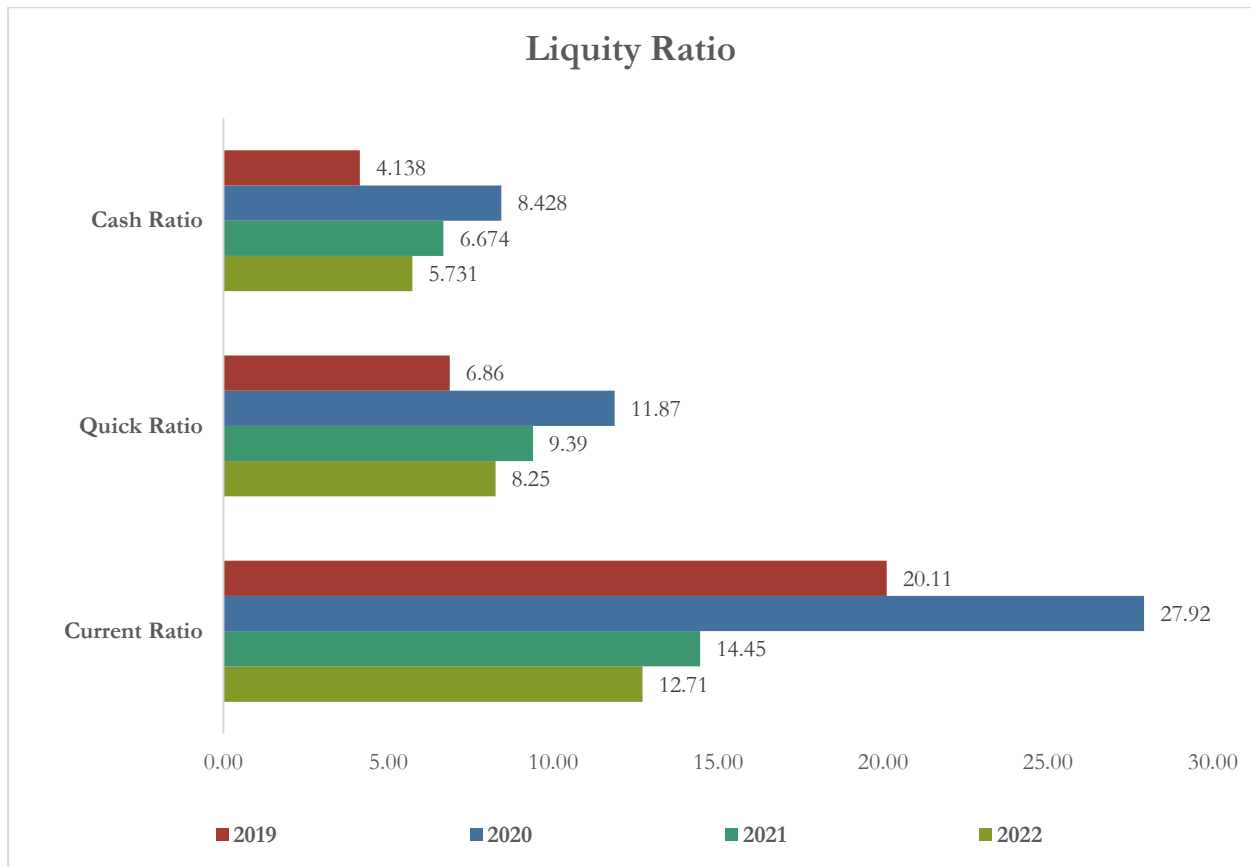
Balance Sheet:

BlackRock - Balance Sheet				
	All number in Thousands			
	12/31/2022	12/31/2021	12/31/2020	12/31/2019
Assets				
Current Assets				
Cash				
Cash And Cash Equivalents	7,416,000	9,323,000	8,664,000	4,829,000
Total Cash	7,416,000	9,323,000	8,664,000	4,829,000
Net Receivables	3,264,000	3,789,000	3,535,000	3,179,000
Total Current Assets	16,445,000	20,193,000	28,706,000	23,474,000
Non-current assets				
Property, plant and equipment				
Gross property, plant and equipment	3,937,000	3,639,000	1,779,000	1,595,000
Accumulated Depreciation	-1,390,000	-1,256,000	-1,098,000	-880,000
Net property, plant and equipment	2,547,000	2,383,000	681,000	715,000
Equity and other investments	7,466,000	7,262,000	6,919,000	5,489,000
Goodwill	15,341,000	15,351,000	14,551,000	14,562,000
Intangible Assets	18,302,000	18,453,000	18,263,000	18,369,000
Other long-term assets	57,527,000	89,006,000	107,862,000	106,013,000
Total non-current assets	101,183,000	132,455,000	148,276,000	145,148,000
Total Assets	117,628,000	152,648,000	176,982,000	168,622,000
Liabilities and stockholders' equity				
Liabilities				
Current Liabilities				
Accounts Payable	-	-	-	1,167,000
Total Current Liabilities	1,294,000	1,397,000	1,028,000	1,167,000
Non-current liabilities				
Long Term Debt	6,654,000	7,446,000	7,264,000	4,955,000
Deferred taxes liabilities	3,381,000	2,758,000	3,673,000	3,734,000
Other long-term liabilities	63,407,000	97,331,000	124,862,000	121,780,000
Total non-current liabilities	77,549,000	112,358,000	138,298,000	132,526,000
Total Liabilities	78,843,000	113,755,000	139,326,000	133,693,000
Stockholders' Equity				
Common Stock	2,000	2,000	2,000	2,000
Retained Earnings	29,876,000	27,688,000	24,334,000	21,662,000
Accumulated other comprehensive income	-1,101,000	-550,000	-337,000	-571,000
Total stockholders' equity	37,744,000	37,693,000	35,283,000	33,547,000
Total liabilities and stockholders' equity	117,628,000	152,648,000	176,982,000	168,622,000

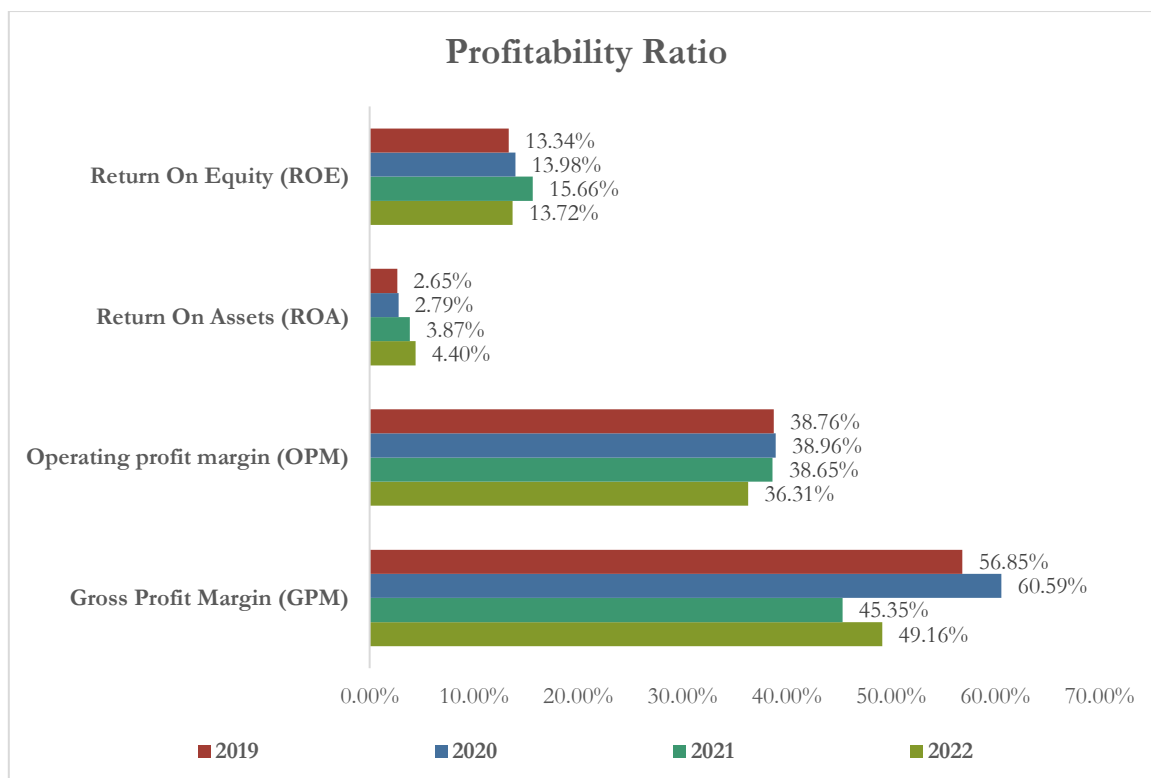
Cash Flows:

BlackRock - Cash Flow					
	All number in Thousands				
	TTM	12/31/2022	12/31/2021	12/31/2020	12/31/2019
Cash flows from operating activities					
Net Income	5,178,000	5,178,000	5,901,000	4,932,000	4,476,000
Depreciation & amortization	418,000	418,000	415,000	358,000	405,000
Deferred income taxes	602,000	602,000	-865,000	-157,000	17,000
Stock based compensation	708,000	708,000	734,000	622,000	567,000
Change in working capital	-897,000	-897,000	658,000	169,000	-608,000
Accounts receivable	416,000	416,000	-322,000	-313,000	-433,000
Other working capital	4,423,000	4,423,000	4,603,000	3,549,000	2,630,000
Other non-cash items	-1,022,000	-1,022,000	-1,505,000	-1,918,000	-1,723,000
Net cash provided by operating activities	4,956,000	4,956,000	4,944,000	3,743,000	2,884,000
Cash flows from investing activities					
Investments in property, plant and equipment	-533,000	-533,000	-341,000	-194,000	-254,000
Acquisitions, net	0	0	-1,106,000	0	-1,510,000
Purchases of investments	-909,000	-909,000	-1,014,000	-430,000	-803,000
Sales/Maturities of investments	242,000	242,000	429,000	187,000	417,000
Net cash used for investing activities	-1,130,000	-1,130,000	-1,937,000	-254,000	-2,014,000
Cash flows from financing activities					
Debt repayment	-776,000	-776,000	-750,000	0	-1,000,000
Common stock repurchased	-2,332,000	-2,332,000	-1,485,000	-1,809,000	-1,911,000
Dividends Paid	-2,990,000	-2,990,000	-2,547,000	-2,260,000	-2,096,000
Other financing activities	645,000	645,000	1,472,000	2,017,000	1,321,000
Net cash used provided by (used for) financing activities	-5,442,000	-5,442,000	-2,287,000	244,000	-2,583,000
Net change in cash	-1,907,000	-1,907,000	659,000	3,835,000	-1,659,000
Cash at beginning of period	9,340,000	9,340,000	8,681,000	4,846,000	6,505,000
Cash at end of period	7,433,000	7,433,000	9,340,000	8,681,000	4,846,000
Free Cash Flow					
Operating Cash Flow	4,956,000	4,956,000	4,944,000	3,743,000	2,884,000
Capital Expenditure	-533,000	-533,000	-341,000	-194,000	-254,000
Free Cash Flow	4,423,000	4,423,000	4,603,000	3,549,000	2,630,000

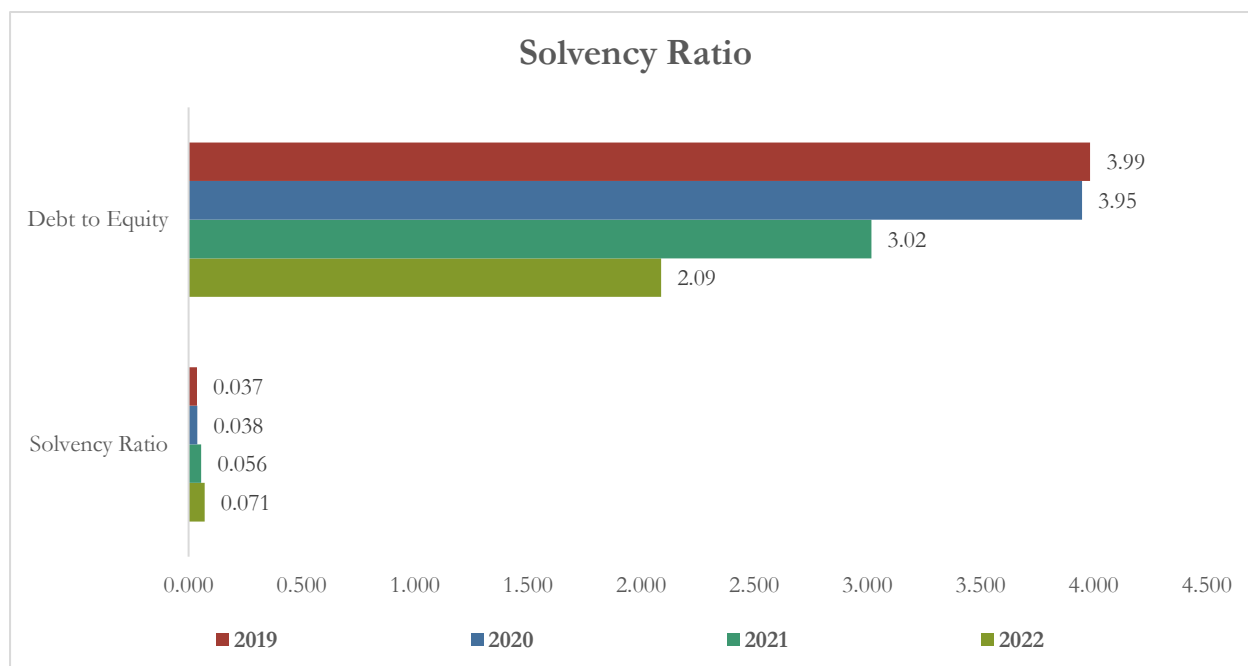
Financial Ratios:



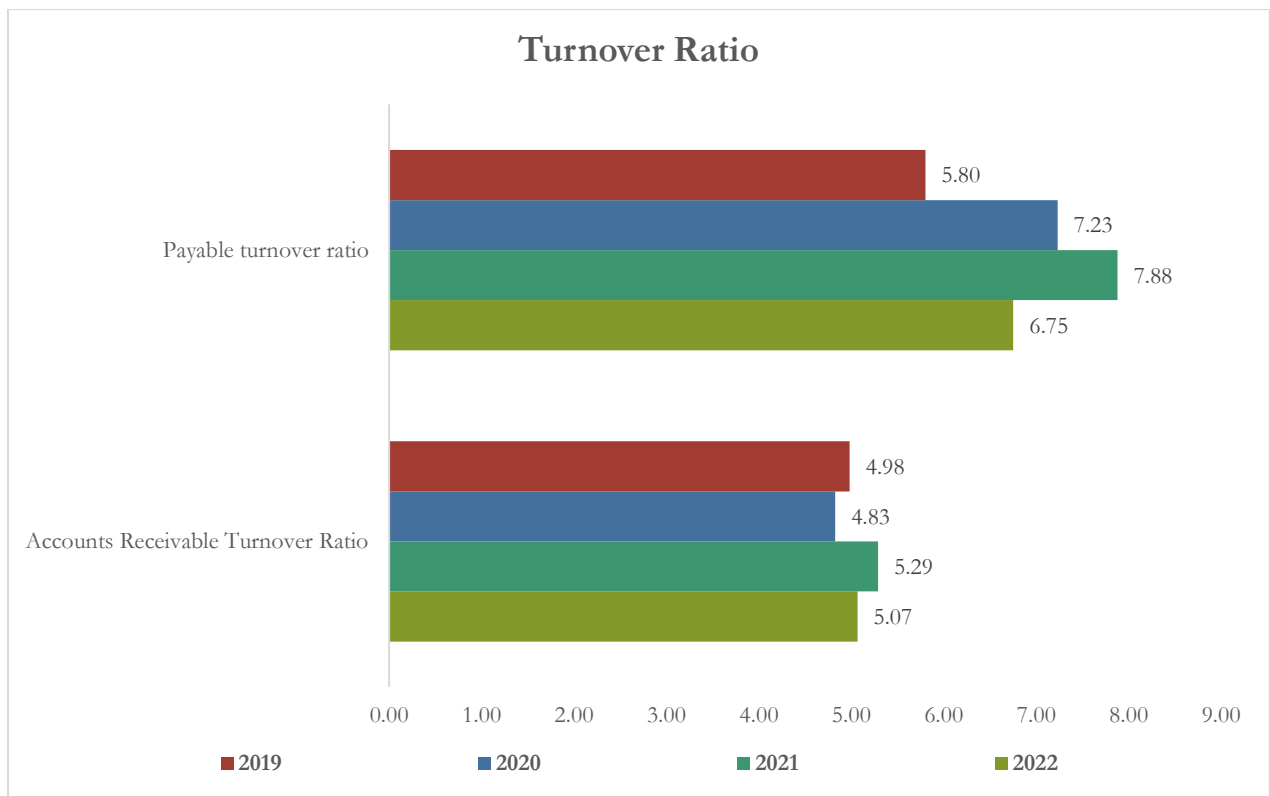
As per the balance sheet, the cash ratio and quick ratio have increased from the year 2019 to 2022 from 4.138 to 5.731 for the cash ratio and 6.86 to 8.25 for the quick ratio. Whereas the current ratio decreased from 20.11 to 12.71. As the year 2020 has shown a great investing period for the company as there was tremendous growth in all three aspects.



Return on Equity, Return on Assets, and Operating profit margin is being similar for the last 4 years. On the other hand, the Gross Profit margin has shown fluctuations from 56.85% to 49.16%.



Debt-to-Equity is decreased from almost 4% to 2.09% in the last 4 years. There was a growth in solvency ratio from 0.037% to 0.071%.



The Payable turnover rate is increased from 3.80 to 6.75 and the Accounts Receivable has shown 0.9 growth from 2019 to 2022.



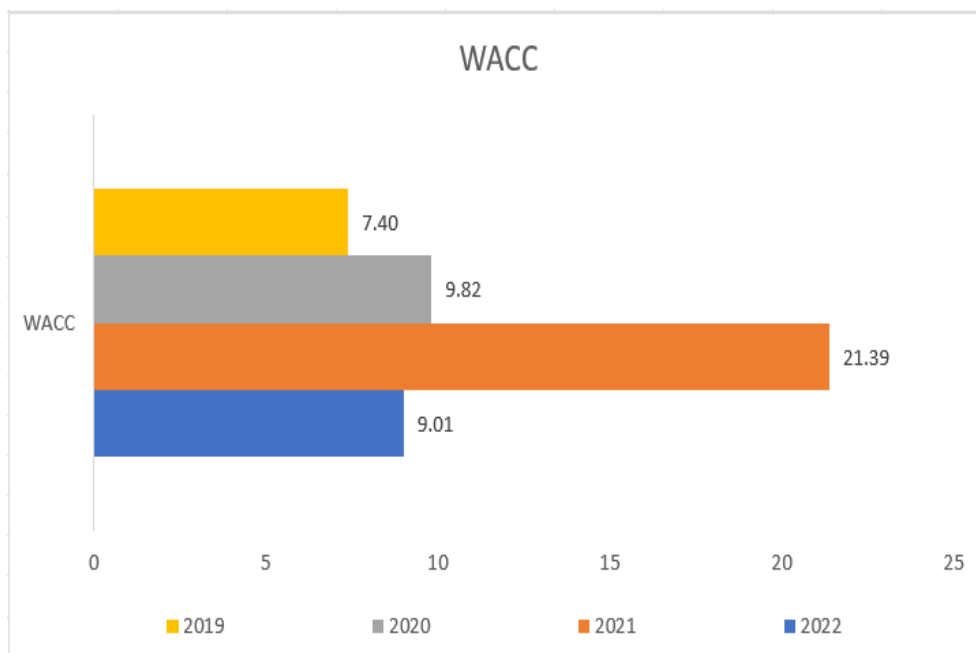
As of now, there is overall growth in the P/E ratio from 2019 to 2022.

CAPM Analysis:

Beta(Ba)	1.352058037
% of monthly return is calculated as Geo mean - 1	
Geo Mean	0.75%
Annual compounded return (Rm)	
Rm	9.36%
Standard value of risk free rate canada	
Rf	3.48%
$Ra = Rf + Ba*(Rm-Rf)$	
Ra	11.43%

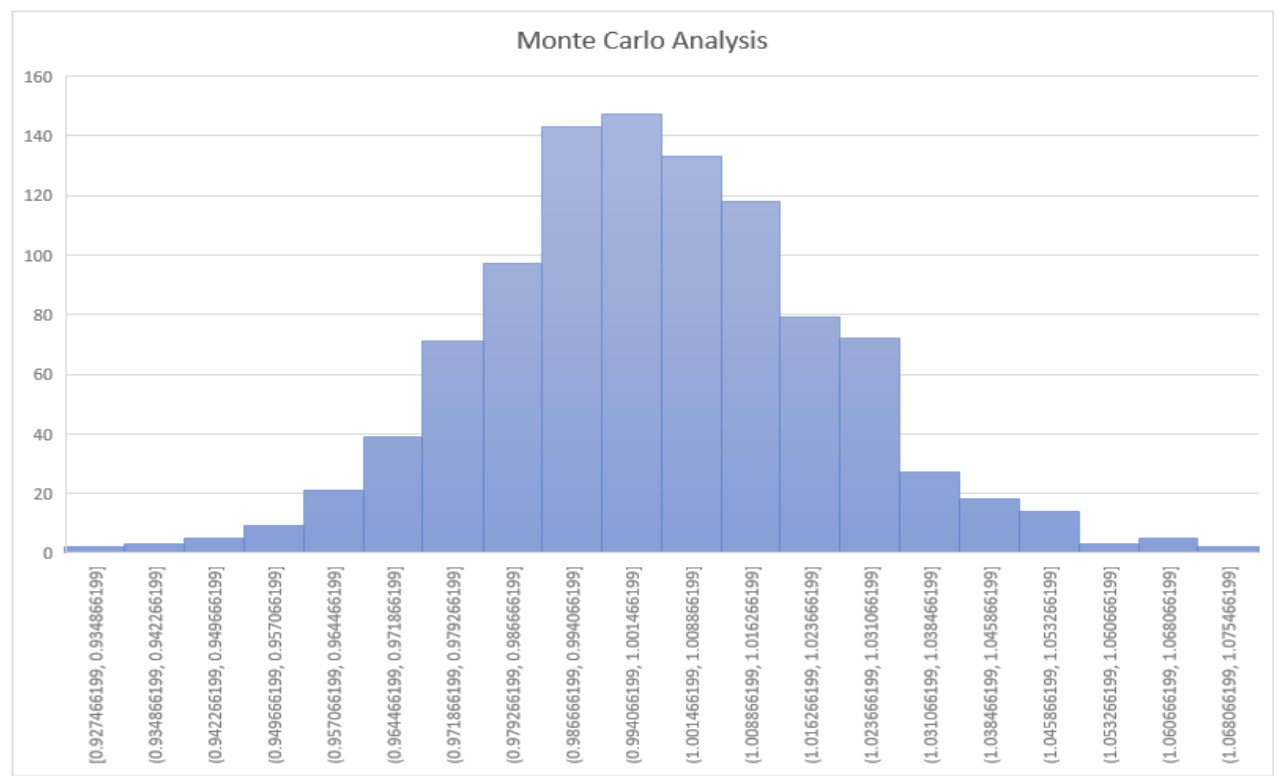
Here, the calculation of CAPM (Capital Asset Pricing Model) with a risk-free ratio of 3.48% as of April 01, 2023, is 11.43%.

Weighted Average Cost of Capital (WACC):



This is the Weighted Average Cost of Capital for the year 2019 to 2022.

MonteCarlo Simulation:



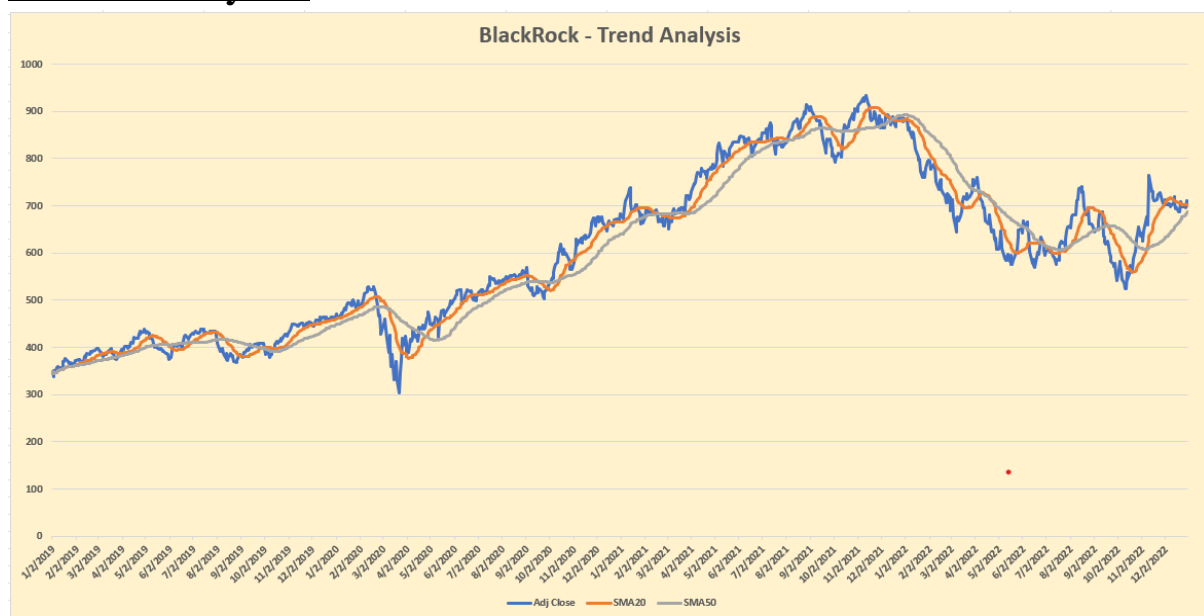
The Monte-Carlo simulation represents the normal distribution (a bell-shaped curve) in which almost all the data points fit perfectly.

Brownian Method:

Average(MU)	0.00069664
Variance(sig^2)	0.000452254
Strandard Deviation	0.021266254
Drift	0.000470513
Random Value	0.003703733
Next Day Price	Today's price*Exp(Drift+Random Value)
Next Day Price	706.4765513
January 03 2023 price	706.92

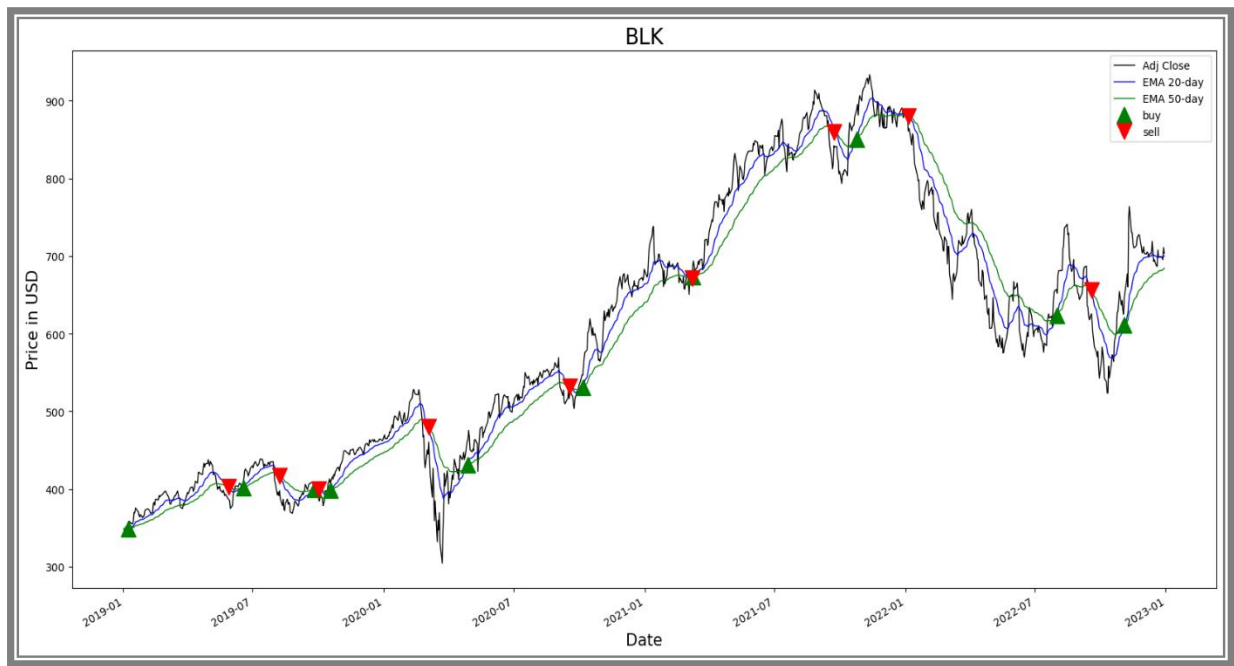
The Brownian method is for calculating the next day's stock price which on comparison was accurate to the next day's real price.

Trend Analysis:



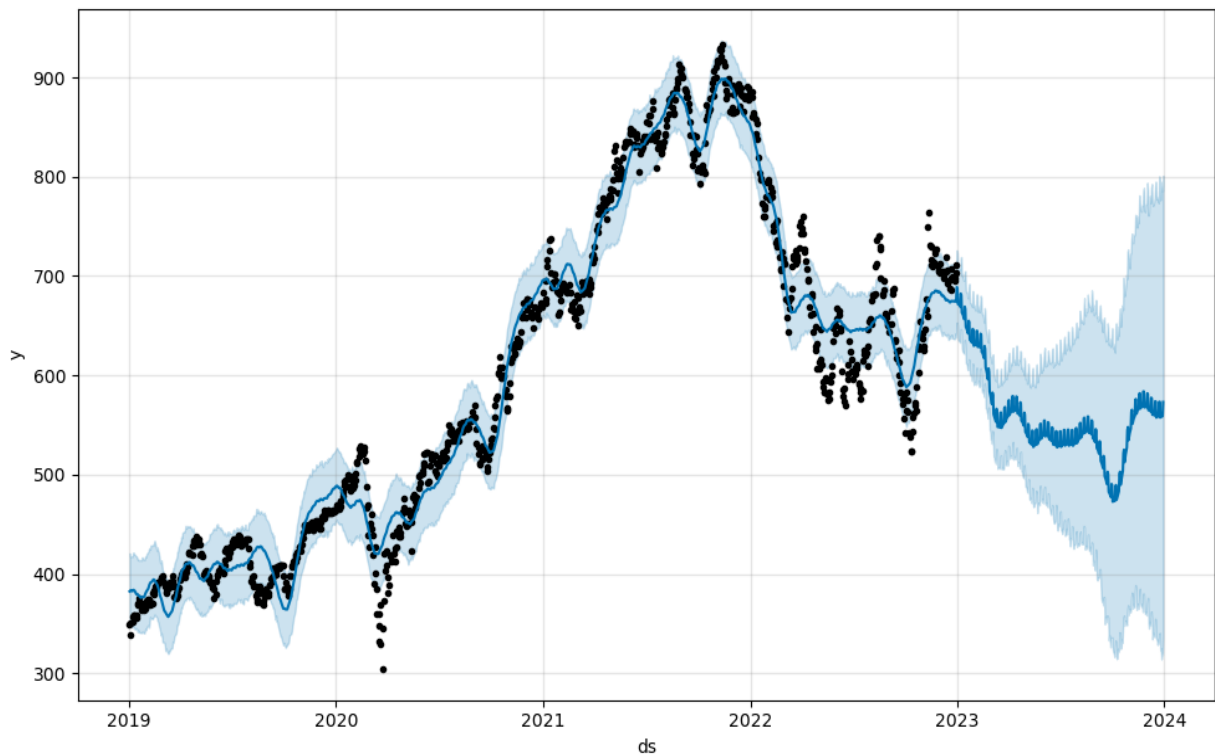
Here the Trend Analysis is being created with 20-SMA and 50-SMA indicators.

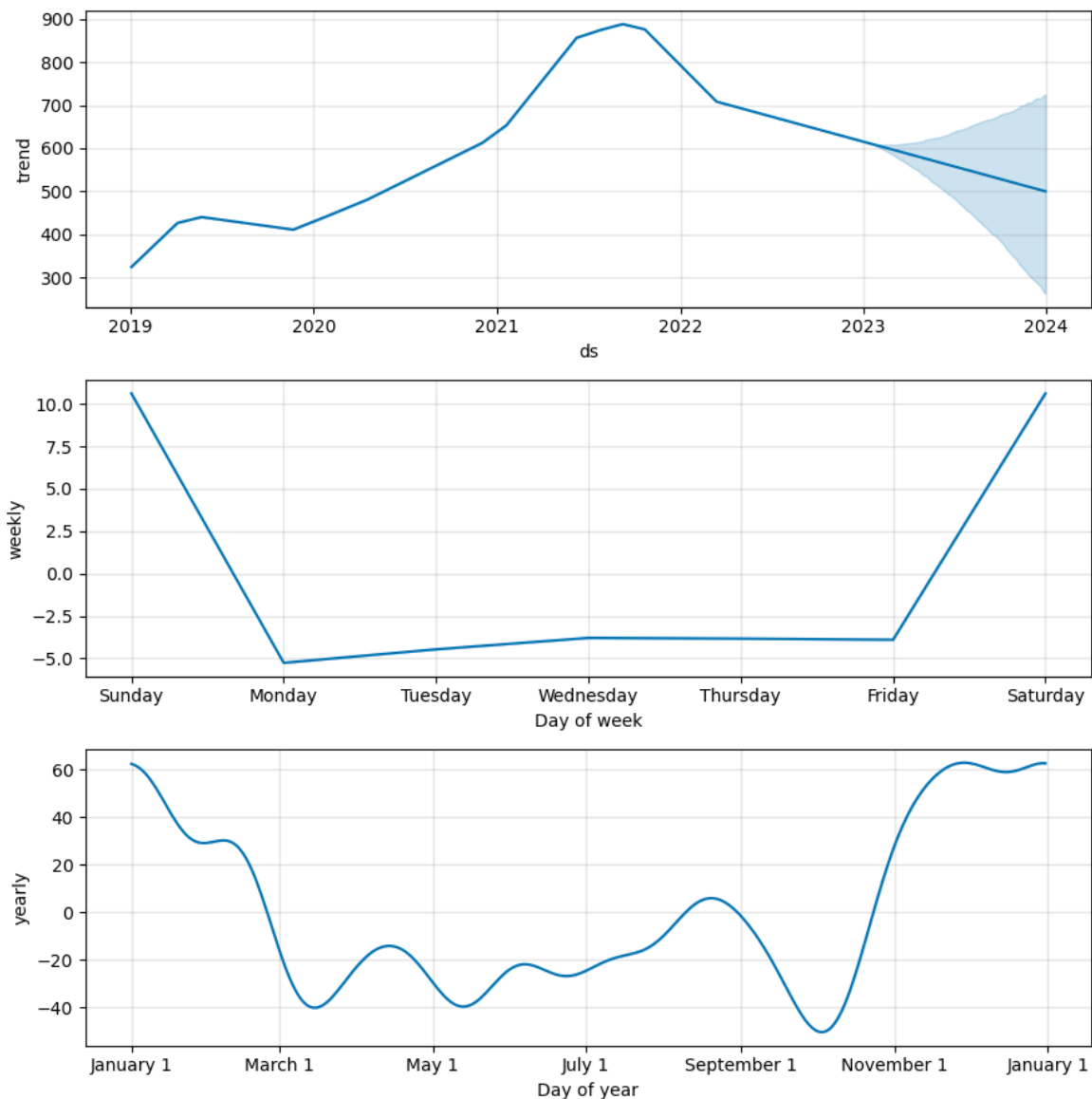
Time Series:



The Time Series method is used to generate the buy and sell signal based on the trend changing over time to book profit and re-enter during the dip.

Facebook Prophet:





This method is used to forecast the time-series method based on the Bayesian approach it includes trend, seasonality, and holiday effects. It is also used to predict the yearly, monthly, and weekly as well.

Recommendation & Conclusion

The world's largest asset manager in less than three decades is BlackRock, a worldwide investment management company. The company places a high emphasis on innovation and technology while providing a broad variety of financial products and services to institutional and retail clients. BlackRock has had significant expansion over the years because of mergers and acquisitions, and the company has been able to maintain its leadership position in the sector because of its solid ties with institutional customers.

- Leading investment management company BlackRock has a lengthy track record of providing value to its clients.
- The business has been able to keep its position as a market leader because of its diversification into other asset classes, as well as its emphasis on risk management and advisory services.
- BlackRock will need to keep innovating and adapting to shifting market conditions to stay ahead of its competitors, albeit industry rivalry is still fierce.

References

- Here are some sources for further reading on BlackRock and the investment management industry:
- BlackRock website: <https://www.blackrock.com/>
- Morningstar: <https://www.morningstar.com/>
- Financial Times: <https://www.ft.com/>
- Wall Street Journal: <https://www.wsj.com/>
- Yahoo Finance:
<https://ca.finance.yahoo.com/quote/BLK?p=BLK>