International Management Studies

Lecture 3

March 19, 2025

I. Investment Management for Stock

1. What is investment process?

2. What are the histories of major stock markets ?

3. History of major companies

4. Next Class: Time Value of Money

1.1 The Investment process by CFA

1. Establishing Investment Policy & Objectives

This is the foundation of the investment process, where investors define their **goals, risk tolerance, and constraints**.

- **Investment Objectives**: Define expected return and risk tolerance.

- **Constraints**:

    - Liquidity needs

    - Time horizon

    - Tax considerations

    - Legal & regulatory constraints

    - Unique preferences (ethical, ESG investing, etc.)

2. Performing Security Analysis

After setting objectives, investors research potential investments through **qualitative and quantitative analysis**:

- **Fundamental Analysis**: Evaluating financial statements, earnings reports, and industry conditions.

- **Technical Analysis**: Analyzing price trends and market behavior.

- **Macroeconomic Analysis**: Studying interest rates, inflation, GDP, and monetary policy.

4. Portfolio Execution (Trade Execution)

Investors or fund managers implement their investment strategy by **executing trades**:

- Choosing between **active vs. passive** investing.

- Selecting appropriate **investment vehicles** (mutual funds, ETFs, direct stock purchases).

- Managing transaction costs and ensuring efficient trade execution.

3. Portfolio Construction & Asset Allocation

Based on security analysis, investors allocate capital across **different asset classes** to balance **risk** and **return**:

- **Strategic Asset Allocation (SAA)**: Long-term allocation based on risk-return objectives.

- **Tactical Asset Allocation (TAA)**: Short-term adjustments based on market conditions.

- **Diversification**: Spreading investments to reduce risk (stocks, bonds, real estate, alternatives, etc.).

5. Performance Evaluation & Monitoring

The portfolio must be **continuously monitored and rebalanced** to align with investment goals:

- **Performance Measurement**: Comparing actual returns vs. benchmarks (e.g., S&P 500).

- **Risk Assessment**: Checking for deviations from expected risk exposure.

- **Rebalancing**: Adjusting portfolio allocations based on market movements and strategy changes.

1.2 What is stock investment ?

In investment, a **stock** (also called **equity**) represents **ownership in a company**.
When an investor buys a stock, *they purchase a small **fraction of ownership** in that company*, known as a **share**.

Key Features of Stocks in Investment:

1. Ownership Rights – Stockholders are partial owners of the company and may have voting rights in corporate decisions.
2. Capital Appreciation – If the company grows and performs well, the stock's price may increase, allowing investors to sell at a profit.
3. Dividends – Some companies distribute part of their profits to shareholders in the form of dividends.
4. Market Volatility – Stock prices fluctuate based on company performance, economic conditions, and investor sentiment.
5. Types of Stocks:
    1. Common Stock – Usually grants voting rights and potential dividends.
    2. Preferred Stock – Prioritized dividend payments but limited or no voting rights.

Investing in stocks can be a way to build wealth over time but comes with risks, including price volatility and market downturns.

What is a Stock?

- A stock represents <u>ownership</u> in a company.

- Buying a stock means owning a small part of the company (share).

- Stocks are traded on stock exchanges like NYSE NASDAQ, KSE and KOSDAQ.

Why Invest in Stocks?

• Potential for capital appreciation (stock price increases over time).

• Some companies pay dividends (profit sharing with investors).

• Ownership and voting rights in some cases.

• Helps build long-term wealth.

Example of capital appreciation

Example of Capital Appreciation in Stock Investment

Capital appreciation occurs when the value of a stock increases over time, allowing an investor to sell it at a higher price than they originally paid.

Example: Apple Inc. (AAPL)

- Suppose you bought **10 shares of Apple Inc. (AAPL)** at **$100 per share** in **2020**.

- The total investment would be **$1,000 (10 × $100)**.

- By **2024**, Apple's stock price increased to **$200 per share**.

- Now, your investment is worth **$2,000 (10 × $200)**.

- **Capital Appreciation = New Value – Initial Investment = $2,000 - $1,000 = $1,000 Profit.**

Illustration

Illustration

I will now generate a visual illustration showing capital appreciation using a stock price graph.

Capital Appreciation Of Apple Stock (Example)
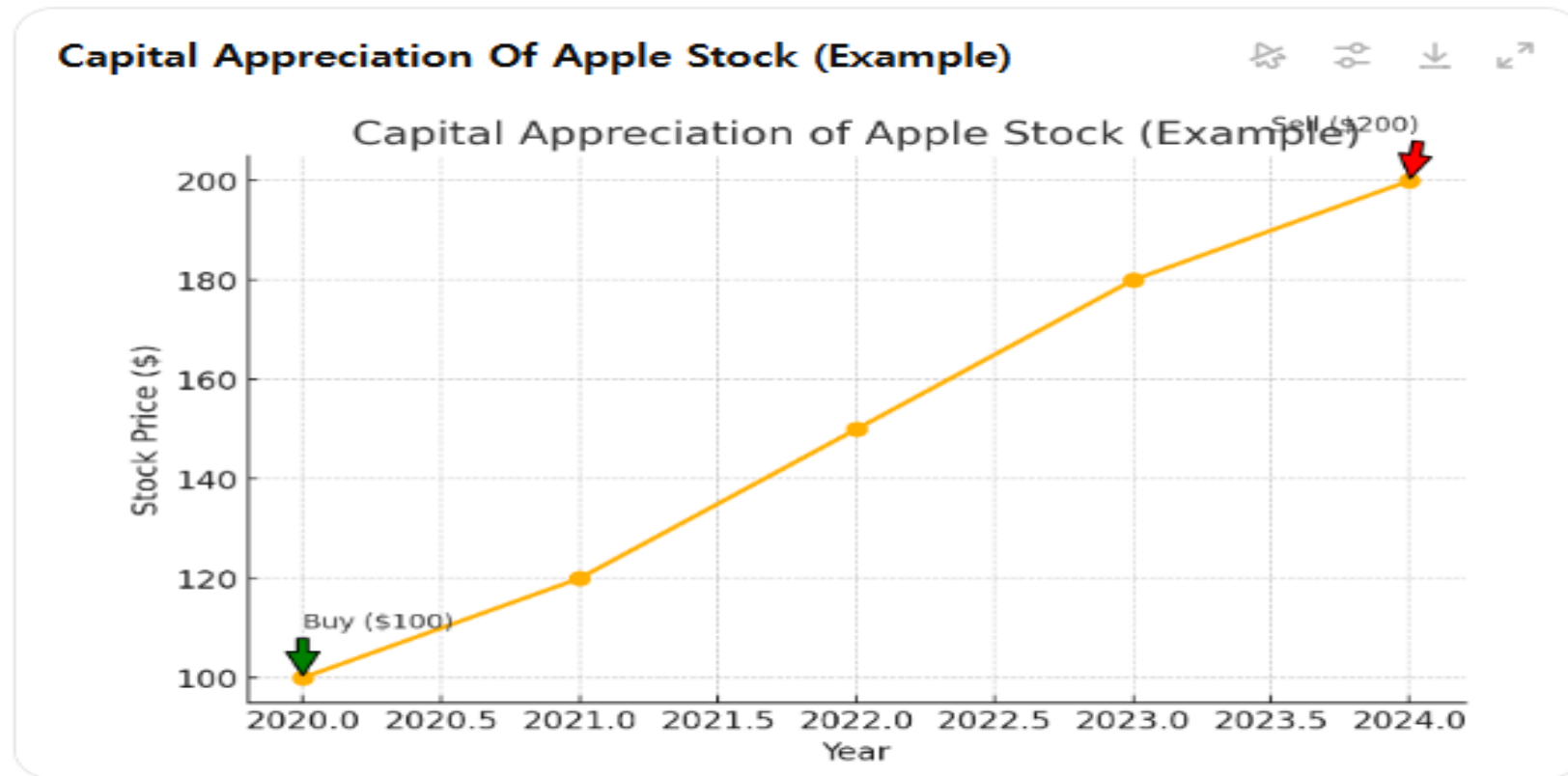
Here is a visual illustration of **capital appreciation** using an example of Apple Inc.'s stock price increasing from **$100 in 2020 to $200 in 2024**. The graph shows how the stock price gradually rises over the years, leading to potential profit for investors.

<Risks of Investing in Stocks>

- Stock prices fluctuate (VIX) due to market conditions.

- There is a risk of losing money if the stock value declines.

- Companies may not always pay dividends.

- Requires research and market understanding.

Understanding VIX (Volatility Index) in the Stock Market

The **VIX (Volatility Index)** is often referred to as the **"Fear Index"** because it measures market volatility expectations. It is a key indicator that reflects investor sentiment and market risk.

---

1. What is VIX?

- The **VIX** is an index that represents the **expected volatility** of the stock market over the next 30 days.

- It is calculated based on the **implied volatility of S&P 500 options**.

- A **higher VIX** means more expected volatility (uncertainty/fear).

- A **lower VIX** means less expected volatility (stability/confidence).

2. How to Interpret the VIX?

VIX Value	Market Sentiment
Below 15	Low volatility → Market stability & confidence
15 - 25	Moderate volatility → Normal market fluctuations
Above 25	High volatility → Increased market fear & uncertainty
Above 40	Extreme volatility → Financial crisis or panic

- **Example**: During the 2008 financial crisis and the 2020 COVID-19 crash, the VIX spiked above 80.

3. Relationship Between VIX & Stock Market

- **Inverse Relationship**: When VIX **rises**, stock markets **fall** due to fear.
- When VIX **falls**, stock markets **rise**, indicating investor confidence.
- Traders use the **VIX to hedge risk** and **predict market movements**.
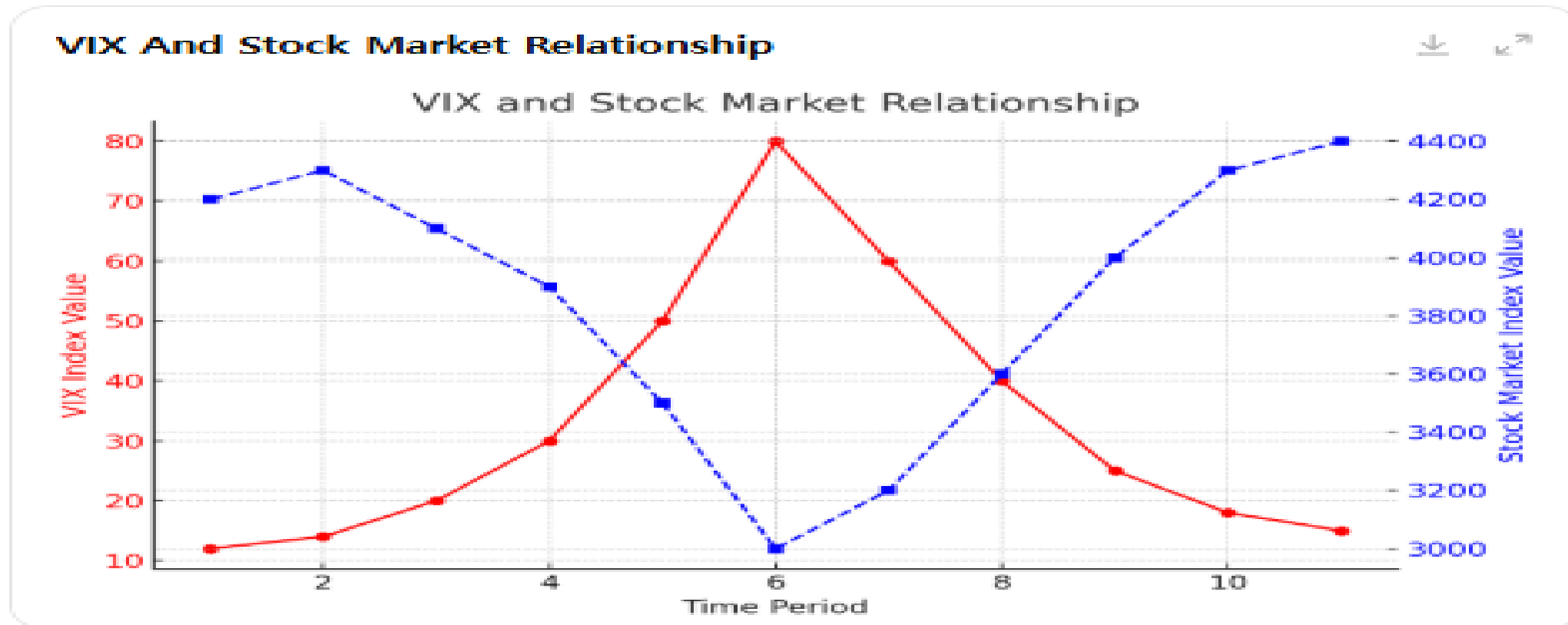
Illustration: Relationship Between VIX and Stock Market

The graph above shows how **VIX (red line) and the stock market index (blue line) move inversely:**

- When **VIX rises**, stock prices **fall** (increased market fear).
- When **VIX drops**, stock prices **recover** (increased market confidence).
- **During crisis events (high VIX)**, stock markets experience major downturns.

Types of Stocks

- Common Stock: Voting rights, potential dividends, higher risk
.
- Preferred Stock: Fixed dividends, less risk, no voting rights.

- Growth Stocks: High potential but volatile.

- Dividend Stocks: Regular income through dividends.

How to Start Investing in Stocks?

1. Open a brokerage account. (see the next page)
2. Research and choose stocks based on company performance
3. Diversify your portfolio to manage risk.
4. Monitor and adjust investments regularly.

Foreign students residing in Korea can open brokerage accounts to invest in the Korean stock market. Here's a guide to the process:

1. Eligibility and Documentation

- **Alien Registration Card (ARC)**: If you've been in Korea for **over 6 months**, possessing an ARC allows you to open a brokerage account without additional registration. hankuklife.com

- **Passport**: A valid passport is required for identification.

- **Bank Account**: A Korean bank account is necessary for fund transfers related to your investments.

2. Choosing a Brokerage Firm

Several Korean brokerage firms facilitate account openings for foreigners:

- **Samsung Securities**: Offers account opening services for foreigners with necessary documentation.

- **BNK Securities**: Provides account opening services for foreign investors, requiring documents such as a passport and Alien Registration Card. hankuklife.com +2

3. Account Opening Procedure

- **In-Person Visit**: Visit a local branch of your chosen brokerage firm. brokerchooser.com

- **Required Documents**: Bring your ARC, passport, and bank account details. hankuklife.com

- **Application**: Complete the account opening forms provided by the brokerage.

- **Verification**: The brokerage will verify your documents and process your application.

Conclusion

- Stocks are a great way to build wealth but come with risks.
- Understanding market trends is key to successful investing.
- Start with small investments and learn over time.
- Diversification reduces risk and increases stability.

2. What are the histories of stock investment ?

1) The Birth of Stock Trading (1602)

- The Dutch East India Company (VOC) issued the first publicly traded shares.

- Investors could buy and sell shares, creating the first stock market.

- The **Amsterdam Stock Exchange** became the first official stock market.

2) Expansion of Stock Markets (1700s-1800s)

- 1773: The London Stock Exchange (LSE) was established.

- 1792: The New York Stock Exchange (NYSE) was formed under the Buttonwood Agreement.

- Stock markets became global, allowing companies to raise capital.

3) The First Stock Market Crashes (1929)

- 1920s: Speculation in stocks led to a financial bubble.

- 1929: The Wall Street Crash wiped out 90% of stock values. The **SEC** was created in 1934 to regulate stock trading.

4) The Rise of Modern Investing (1950s-1980s)

• 1950s: Mutual funds became popular for investors.

• 1971: **NASDAQ** launched as the first electronic stock exchange.

• 1980s: Digital trading replaced paper transactions.

5) The Internet Revolution (1990s-2000s)

- 1990s: Online trading platforms enabled direct stock trading.

- 2000: The dot-com bubble burst, causing huge losses.

- 2008: The Global Financial Crisis triggered another crash.

6) The Era of Tech Stocks & ETFs (2010s-Present)

- FAANG stocks (Facebook, Apple, Amazon, Netflix, Google) dominated markets.

- **ETFs** became popular for diversified investing.

- 2020: The COVID-19 pandemic caused a crash followed by a rapid recovery.

7. The Future of Stock Investment (2020s and Beyond)

- **AI** and algorithmic trading are reshaping stock markets.

- **Cryptocurrencies** and blockchain are influencing strategies.

- Commission-free trading apps like **Robinhood** and **eToro** make investing accessible.

Conclusion

- Stock markets evolved from physical trading to digital platforms.

- Understanding past trends helps investors prepare for future changes.

- Investing knowledge is crucial for informed decisions.

\<sites to see the stock prices\>

1. Yahoo Finance (finance.yahoo.com)

- Offers **interactive stock charts** with historical data.
- Provides **technical indicators** like Moving Averages, RSI, MACD, etc.
- Covers **news, earnings reports, and financials** of companies.

2. TradingView (tradingview.com)

- Advanced **technical analysis tools** with customizable charts.
- Allows users to apply **indicators, trend lines, and Fibonacci retracements.**
- Provides **real-time market updates and trading ideas.**

3. Google Finance (google.com/finance)

- Simple and easy-to-read **stock price graphs.**
- Provides **news, earnings reports, and market trends.**
- Good for **quick stock price lookups.**

4. Investing.com (investing.com)

- Detailed **candlestick and line charts** for U.S. stocks.
- Allows **comparison of multiple stocks** on the same graph.
- Offers **pre-market and after-hours trading data.**

5. MarketWatch (marketwatch.com)

- Provides **live and historical stock charts.**
- Includes **market insights, earnings reports, and investment analysis.**
- Suitable for **long-term investment research.**

6. Nasdaq (nasdaq.com)

- Displays stock charts for companies listed on **Nasdaq.**
- Provides **real-time quotes and performance metrics.**
- Useful for tracking **tech-heavy stocks.**

7. The Wall Street Journal (WSJ) (wsj.com)

- Provides **stock charts and financial news.**
- Ideal for **in-depth analysis of market trends.**
- Requires **subscription** for some features.

8. StockCharts.com (stockcharts.com)

- Offers **customizable technical analysis charts.**
- Includes **pattern recognition tools** for traders.
- Suitable for **chart-based trading strategies.**

<sites to see the stock prices>

9. CNN Business (cnn.com/business)

- Provides **stock price charts with market summaries.**
- Includes **news and analysis on major market movements.**

10. Bloomberg (bloomberg.com)

- Displays **real-time stock data and news.**
- Offers **interactive market charts** for professional traders.

3. Graphs of major US firm's stock

NVIDIA Corporation (NVDA) ⓘ

119.53   −2.14 (−1.76%) ▼

🕐 Closed · 17/03

☀ Pre Market ▼ 119.48 −0.05 (−0.04%) 06:10:43

General	**Chart**	**News & Analysis**	**Financials**	**Technical**	**Forum**

Overview   Profile   Ownership   Historical Data   Historical Splits   Options   Index Component

▪▮▪   〰   1   5   15   30   1H   5H   1D   1W   **1M** | ▤   **Technical Chart »**

NVIDIA Corporation ▼ 119.53 −2.14 (−1.76%)

1 Day	1 Week	1 Month	3 Months	6 Months	1 Year	**5 years**	Max

Key Statistics ⑦ | Edit

Prev. Close	119.53	Market Cap	2.92T	P/E Ratio	40.58
Open	122.74	Shares Outstanding	24.4B	Return on Assets	82.2%
Day's Range	118.03 - 122.89	Revenue	130.5B	Return on Equity	119.2%
52 wk Range	75.61 - 153.13	Net Income	72.88K	Gross Profit Margin	75%
Volume	255.5M	EPS	2.97	Price/Book	36.77
Average Vol. (3m)	271.51M	EPS Growth Forecast 🄿	🔒 Unlock	EBITDA	83.32B
1-Year Change	36.08%	Next Earnings Date	May 28, 2025	EV/EBITDA	34.61
Book Value / Share	3.24	Dividend (Yield)	0.04 (0.03%)	Beta	1.76
Fair Value 🄿	🔒 Unlock	Dividends Payment Streak 🄿	🔒 Unlock		
Fair Value Upside 🄿	🔒 Unlock	RSI(14)	49.53		

Apple Inc (AAPL) ⓘ

🇺🇸 NASDAQ ▾   Currency in USD   [📄 AAPL Pro Research]

214.00   +0.51 (+0.24%) ▲

🕐 Closed · 17/03

☀ Pre Market ▼ 213.48 -0.52 (-0.24%) 06:12:45

General   Chart   News & Analysis   Financials   Technical   Forum

Overview   Profile   Ownership   Historical Data   Historical Splits   Options   Index Component

| 📊 | 〰 | 1 | 5 | 15 | 30 | 1H | 5H | 1D | 1W | **1M** | 📰 | **Technical Chart »** |

Apple Inc ▲ 214.00 +0.51 (+0.24%)

Investing.com

| 1 Day | 1 Week | 1 Month | 3 Months | 6 Months | 1 Year | **5 years** | Max |

Key Statistics ⓘ | Edit

More metrics for AAPL

Prev. Close	214	Market Cap	3.21T	P/E Ratio	33.96
Open	213.31	Shares Outstanding	15.02B	Return on Assets	27.6%
Day's Range	209.97 - 215.22	Revenue	395.76B	Return on Equity	136.5%
52 wk Range	164.07 - 260.1	Net Income	96.15K	Gross Profit Margin	46.5%
Volume	48.07M	EPS	6.31	Price/Book	48.15
Average Vol. (3m)	53.46M	EPS Growth Forecast 🔒 Unlock		EBITDA	137.35B
1-Year Change	23.97%	Next Earnings Date	Apr 24, 2025	EV/EBITDA	23.08
Book Value / Share	4.42	Dividend (Yield)	1.00 (0.47%)	Beta	1.2
Fair Value 🔒 Unlock		Dividends Payment Streak 🔒 Unlock			
Fair Value Upside 🔒 Unlock		RSI(14)	30.96		

FxPro 와(과) 함께 거래 시작

AAPL

Tesla Inc (TSLA) ⓘ

238.01   −11.97 (−4.79%) ▼

🕐 Closed · 17/03

☀ Pre Market   ▼   234.69   −3.32 (−1.39%)   06:14:24

General   Chart   News & Analysis   Financials   Technical   Forum

Overview   Profile   Ownership   Historical Data   Historical Splits   Options   Index Component

| 1 | 5 | 15 | 30 | 1H | 5H | 1D | 1W | **1M** | | Technical Chart »

Tesla Inc ▼ 238.01 −11.97 (−4.79%)

| 1 Day | 1 Week | 1 Month | 3 Months | 6 Months | 1 Year | **5 years** | Max |

Key Statistics ⓘ | Edit

Prev. Close	238.01	Market Cap	765.56B	P/E Ratio	107.04
Open	245.06	Shares Outstanding	3.22B	Return on Assets	6.3%
Day's Range	232.8 - 245.4	Revenue	97.69B	Return on Equity	10.5%
52 wk Range	138.8 - 488.54	Net Income	7.09K	Gross Profit Margin	17.9%
Volume	111.9M	EPS	2.23	Price/Book	10.5
Average Vol. (3m)	89.73M	EPS Growth Forecast ᴾ	🔒 Unlock	EBITDA	13.03B
1-Year Change	45.51%	Next Earnings Date	Apr 29, 2025	EV/EBITDA	57.07
Book Value / Share	22.71	Dividend (Yield)	N/A (N/A)	Beta	2.34
Fair Value ᴾ	🔒 Unlock	Dividends Payment Streak ᴾ	🔒 Unlock		
Fair Value Upside ᴾ	🔒 Unlock	RSI(14)	31.23		

164.73   -4.27 (-2.53%) ▼

🕐 Closed · 13/03

☀ Pre Market ▲ 166.95 +2.22 (+1.35%) 08:34:44

General   Chart   News & Analysis   Financials   Technical   Forum

Overview   Profile   Ownership   Historical Data   Historical Splits   Options   Index Component

| | 1   5   15   30   1H   5H   1D   1W   **1M** | | Technical Chart »

Alphabet Inc Class C ⬇ **164.73** -4.27 (-2.53%)   **Buy**   **Sell**

164.73

200.00

150.00

100.00

50.00

1000m

Apr   2015   2016   2017   2018   2019   2020   2021   2022   2023   2024   2025

Investing.com

| 1 Day | 1 Week | 1 Month | 3 Months | 6 Months | 1 Year | 5 years | **Max** |

Microsoft Corporation (MSFT) ⓘ

🇺🇸 NASDAQ ▾   Currency in **USD**   📄 MSFT Pro Research

378.77   **-4.50 (-1.17%)** ▼

🕐 Closed · 13/03

☀ Pre Market ▲ **382.96** **+4.19 (+1.11%)**   08:37:22

Fai
Da
37
52
37

General   Chart   News & Analysis   Financials   Technical   Forum

Overview   Profile   Ownership   Historical Data   Historical Splits   Options   Index Component

| 1 | 5 | 15 | 30 | 1H | 5H | 1D | 1W | **1M** | Technical Chart »

Microsoft Corporation ▼ 378.77 -4.50 (-1.17%)   **Buy**   **Sell**

| 1 Day | 1 Week | 1 Month | 3 Months | 6 Months | 1 Year | 5 years | **Max** |

590.64 -28.92 (-4.67%) ▼

🕐 Closed · 13/03

☀ Pre Market ▲ 603.74 +13.63 (+2.31%) 08:38:02

General   Chart   News & Analysis   Financials   Technical   Forum

Overview   Profile   Ownership   Historical Data   Options   Index Component

| | | 1   5   15   30   1H   5H   1D   1W   **1M** | | Technical Chart »

Meta Platforms Inc ▼ **590.64** -28.92 (-4.67%)   Buy   Sell ▼

590.64

500.00

250.00

0.00

2.00b
1000m

2013   2014   2015   2016   2017   2018   2019   2020   2021   2022   2023   2024   2025

| 1 Day | 1 Week | 1 Month | 3 Months | 6 Months | 1 Year | 5 years | Max |

Amazon.com Inc (AMZN) ⓘ

193.89   -5.00 (-2.51%) ▼

🕐 Closed · 13/03

☀ Pre Market ▲ 197.28 +3.39 (+1.75%) 08:38:53

General   Chart   News & Analysis   Financials   Technical   Forum

Overview   Profile   Ownership   Historical Data   Historical Splits   Options   Index Component

| 1 | 5 | 15 | 30 | 1H | 5H | 1D | 1W | **1M** | Technical Chart »

Amazon.com Inc ▼ **193.89** -5.00 (-2.51%)   Buy   Sell

| 1 Day | 1 Week | 1 Month | 3 Months | 6 Months | 1 Year | 5 years | **Max** |

5. Time Value of Money (Next Class)