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Drawing Capital

Investment Frameworks

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Understanding Investment Frameworks for Portfolio Construction

Presented by:

Sagar Joshi and Sean van der Wal

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Drawing Capital is an innovation-focused private investment firm headquartered in Silicon Valley, CA.

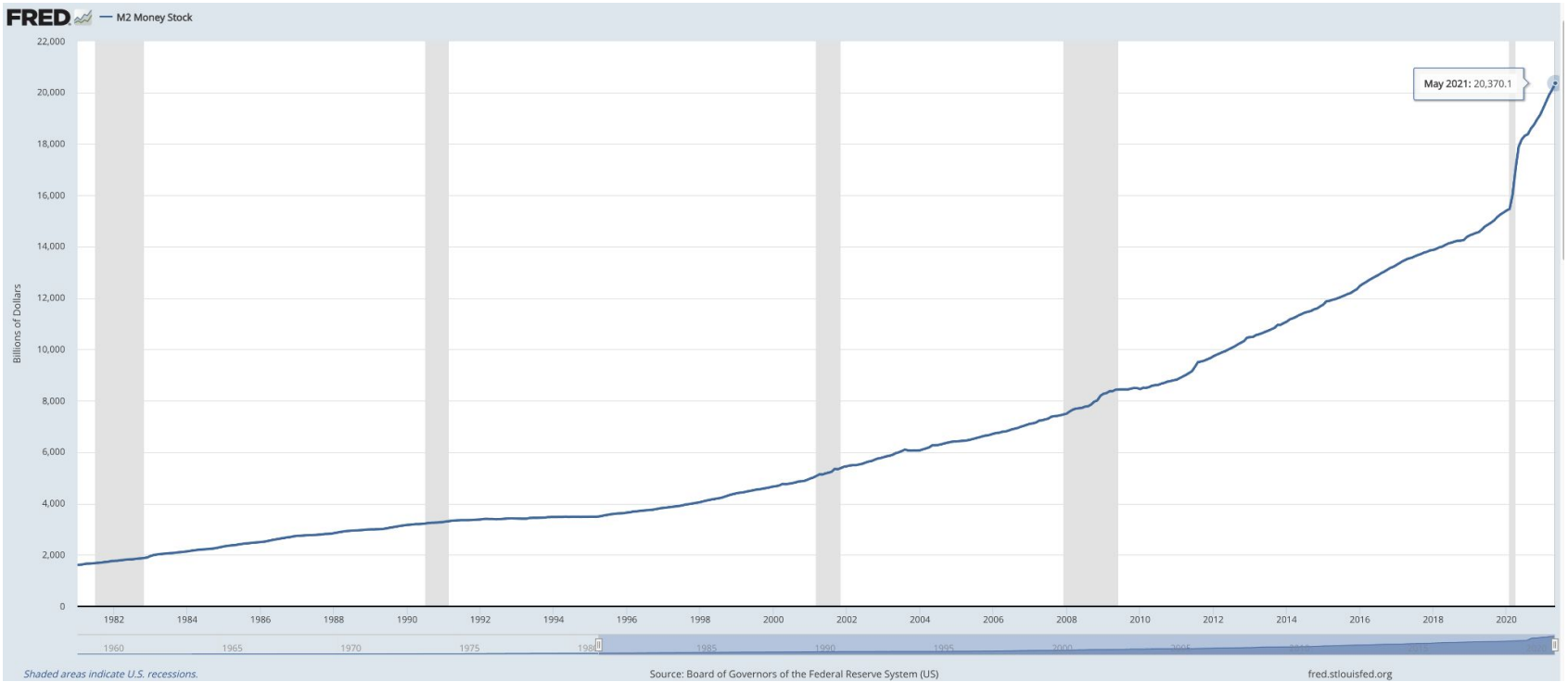
Drawing Capital aims to capture the expansion of a technology-forward world by investing in leaders that we believe carry undervalued growth. Our expertise in finance and data science enables us to participate in investment opportunities in public markets not captured by passive investing.

Table of Contents

Macroeconomic Perspectives & Navigating the Market Cycle

- Treasury yield spreads
- Treasury yield curve ratio for market-implied dynamic asset allocation
- High yield bond spreads
- Fed balance sheet & monetary policy

Monetary Cycle Leads the Stock Market, which Leads the Economy



Data Source: Federal Reserve Economic Database (FRED)

High Yield Bond Spreads Spike in Recessions & Compress in Recoveries

Data Source: Federal Reserve Economic Database (FRED)

Inversion of the Yield Curve Precedes Recessions & High Financial Stress

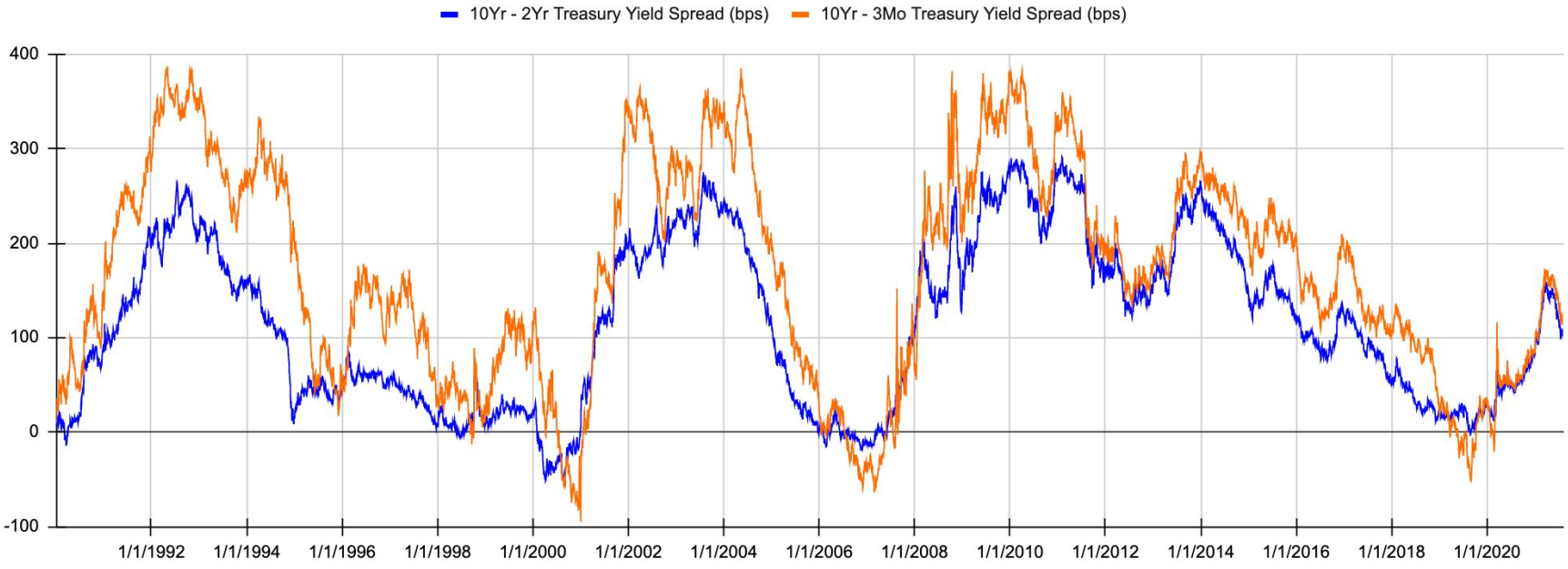


Chart by Drawing Capital and Data from US Treasury (Link: https://www.treasury.gov/resource-center/data-chart-center/interest-rates/pages/textview.aspx?data=yield)

Low US Treasury Yield Curve Ratios Imply Favorable Investing Odds

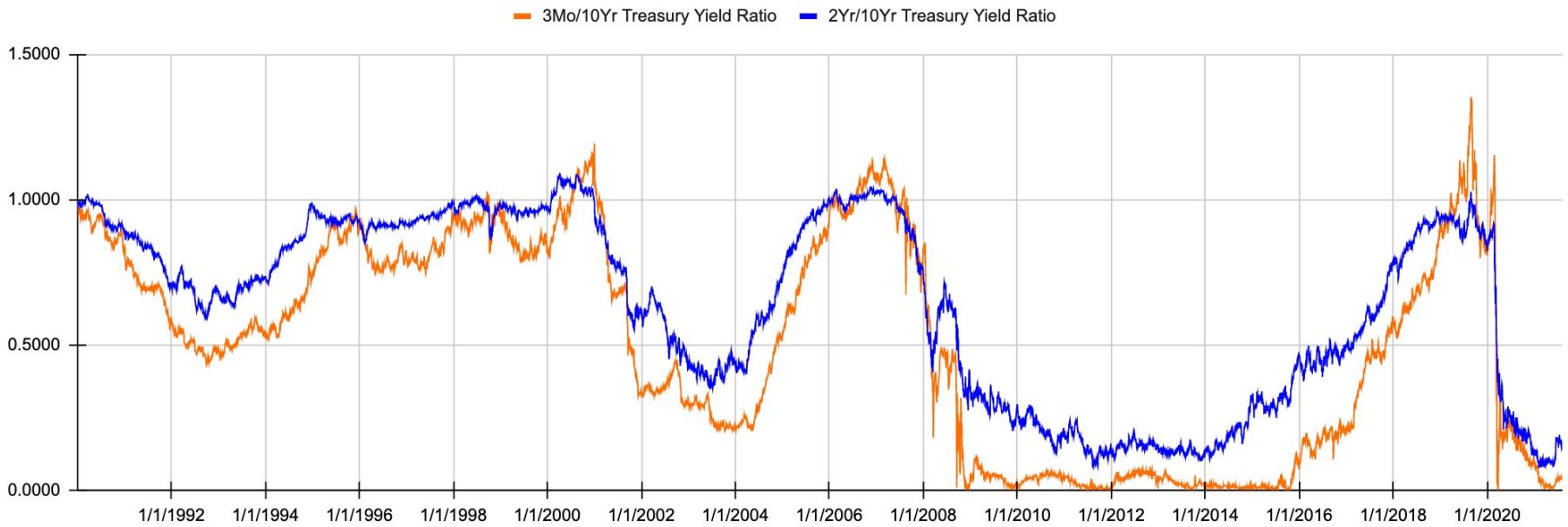


Chart by Drawing Capital and Data from US Treasury (Link: https://www.treasury.gov/resource-center/data-chart-center/interest-rates/pages/textview.aspx?data=yield)

Market-Implied Dynamic Asset Allocation

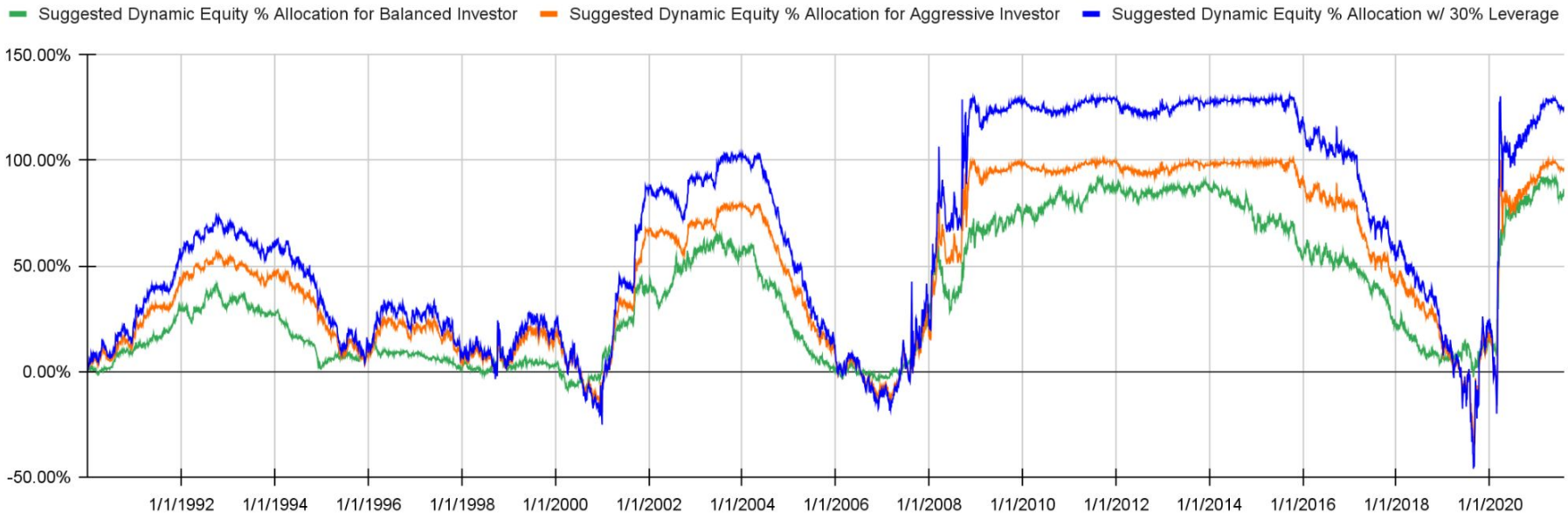
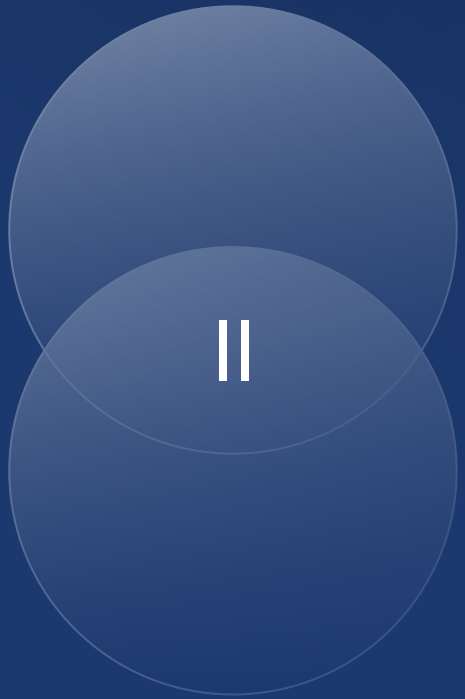


Chart by Drawing Capital and Data from US Treasury (Link: https://www.treasury.gov/resource-center/data-chart-center/interest-rates/pages/textview.aspx?data=yield)



Discount Rate Scenario Analysis

- Interest rates, discount rates, and the timing of cash flows impact present value calculations.
- Modeling scenarios helps to quantify assumptions, parameters, and a distribution of outcomes.

Interest Rates Impact Discount Rates and PV of Cash Flows

Scenario 1: $100 cash flow per year for 10 years

Scenario 1: You buy a business for $5000, and the business earns a static $100 in cash flow per year for the next 10 years for a total of $1000 in cash flows. The discount rate is 5%. At the end of 10 years, the business is assumed to be worth $10,000 (terminal value).

Year	0	1	2	3	4	5	6	7	8	9	10	10
Cash Flow	-$5,000	$100	$100	$100	$100	$100	$100	$100	$100	$100	$100	$10,000
Discount Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Present Value	-$5,000	$95	$91	$86	$82	$78	$75	$71	$68	$64	$61	$6,139

Initial Investment	$5,000
Business Cash Flows Received in 10 Years	$1,000
Terminal Value of Business at Year 10	$10,000
Total Gain on Investment (= Terminal Value of Business + Cash Flows Received During Business Ownership - Purchase Price of Business)	$6,000
Net Present Value of All Cash Flows	$1,911

Interest Rates Impact Discount Rates and PV of Cash Flows

Scenario 2: Declining cash flows for 10 years, starting at $500/yr

Scenario 2: All assumptions from Scenario 1 carry over to Scenario 2, except the business earns declining and non-static cash flows per year for the next 10 years for a total of $1000 in cash flows.

Year	0	1	2	3	4	5	6	7	8	9	10	10
Cash Flow	-$5,000	$500	$400	$300	$200	$200	$100	$0	-$100	-$100	-$500	$10,000
Discount Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Present Value	-$5,000	$476	$363	$259	$165	$157	$75	$0	-$68	-$64	-$307	$6,139

Initial Investment	$5,000
Business Cash Flows Received in 10 Years	$1,000
Terminal Value of Business at Year 10	$10,000
Total Gain on Investment (= Terminal Value of Business + Cash Flows Received During Business Ownership - Purchase Price of Business)	$6,000
Net Present Value of All Cash Flows	$2,194

Interest Rates Impact Discount Rates and PV of Cash Flows

Scenario 3: Increasing cash flows for 10 years, starting at -$500/year

Scenario 3: All assumptions from Scenario 1 carry over to Scenario 3, except the business earns increasing and non-static cash flows per year for the next 10 years for a total of $1000 in cash flows.

Year	0	1	2	3	4	5	6	7	8	9	10	10
Cash Flow	-$5,000	-$500	-$100	-$100	$0	$100	$200	$200	$300	$400	$500	$10,000
Discount Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Present Value	-$5,000	-$476	-$91	-$86	$0	$78	$149	$142	$203	$258	$307	$6,139

Initial Investment	$5,000
Business Cash Flows Received in 10 Years	$1,000
Terminal Value of Business at Year 10	$10,000
Total Gain on Investment (= Terminal Value of Business + Cash Flows Received During Business Ownership - Purchase Price of Business)	$6,000
Net Present Value of All Cash Flows	$1,623

Summary of 3 Scenarios

Category	Scenario 1	Scenario 2	Scenario 3
Initial Investment	$5,000	$5,000	$5,000
Business Cash Flows Received in 10 Years	$1,000	$1,000	$1,000
Terminal Value of Business at Year 10	$10,000	$10,000	$10,000
Total Gain on Investment (= Terminal Value of Business + Cash Flows Received During Business Ownership - Purchase Price of Business)	$6,000	$6,000	$6,000
Net Present Value of All Cash Flows	$1,911	$2,194	$1,623

Data Source:

Higher Discount Rates Lead to Lower Present Values

Scenario 4: Static $100/ year cash flow with 5% discount rate

Scenario 4: You buy a business for $5000, and the business earns a static $100 in cash flow per year for the next 10 years for a total of $1000 in cash flows. At the end of 10 years (terminal value), the business is assumed to be worth $10000.

Year	0	1	2	3	4	5	6	7	8	9	10	10
Cash Flow	-$5,000	$100	$100	$100	$100	$100	$100	$100	$100	$100	$100	$10,000
Discount Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Present Value	-$5,000	$95	$91	$86	$82	$78	$75	$71	$68	$64	$61	$6,139

Initial Investment	$5,000
Business Cash Flows Received in 10 Years	$1,000
Terminal Value of Business at Year 10	$10,000
Total Gain on Investment (= Terminal Value of Business + Cash Flows Received During Business Ownership - Purchase Price of Business)	$6,000
Net Present Value of All Cash Flows	$1,911

Higher Discount Rates Lead to Lower Present Values

Scenario 5: Static $100/ year cash flow with 10% discount rate

Scenario 5: All assumptions from Scenario 1 carry over to Scenario 2, except the discount rate is 10% instead of 5%.

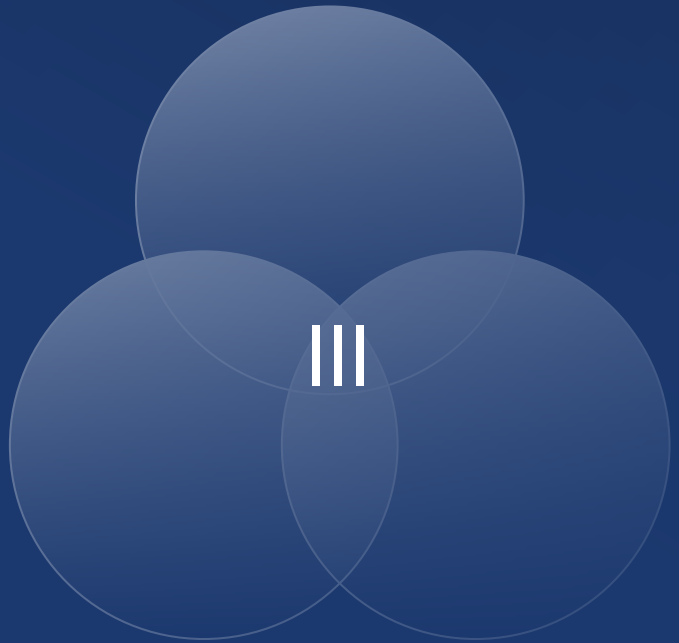
Year	0	1	2	3	4	5	6	7	8	9	10	10
Cash Flow	-$5,000	$100	$100	$100	$100	$100	$100	$100	$100	$100	$100	$10,000
Discount Rate	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Present Value	-$5,000	$91	$83	$75	$68	$62	$56	$51	$47	$42	$39	$3,855

Initial Investment	$5,000
Business Cash Flows Received in 10 Years	$1,000
Terminal Value of Business at Year 10	$10,000
Total Gain on Investment (= Terminal Value of Business + Cash Flows Received During Business Ownership - Purchase Price of Business)	$6,000
Net Present Value of All Cash Flows	-$530

Summary of Scenarios #4 and #5

Category	Scenario 4	Scenario 5
Initial Investment	$5,000	$5,000
Business Cash Flows Received in 10 Years	$1,000	$1,000
Terminal Value of Business at Year 10	$10,000	$10,000
Total Gain on Investment (= Terminal Value of Business + Cash Flows Received During Business Ownership - Purchase Price of Business)	$6,000	$6,000
Net Present Value of All Cash Flows	$1,911	-$530

Data Source:



Portfolio Construction & Business Fundamentals

- Don’t day-trade innovation. True transformative or disruptive innovation takes time.
- Modified capital allocation line demonstrates returns, risk, and uncertainty in achieving target returns.
- Investors have a choice of building concentrated or diversified portfolios.

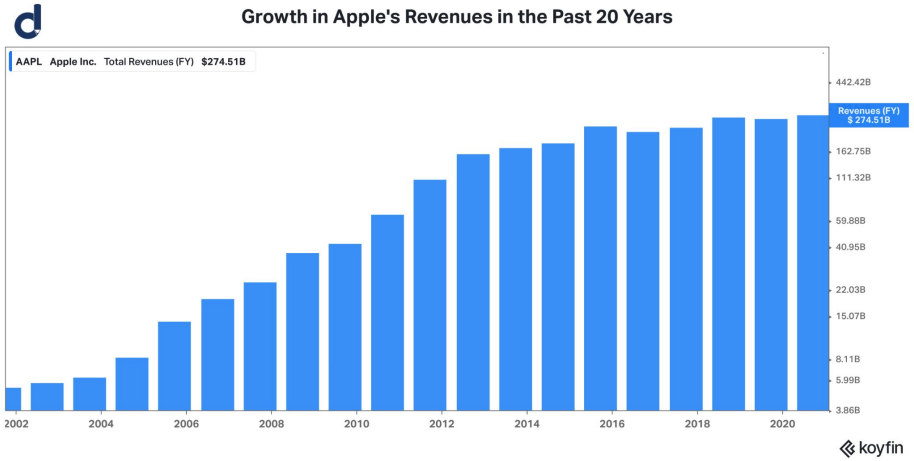
Don’t Lose Sight of the Forest from the Trees: Apple Case Study

~52%

Probability of a Positive Return in Single Trading Day

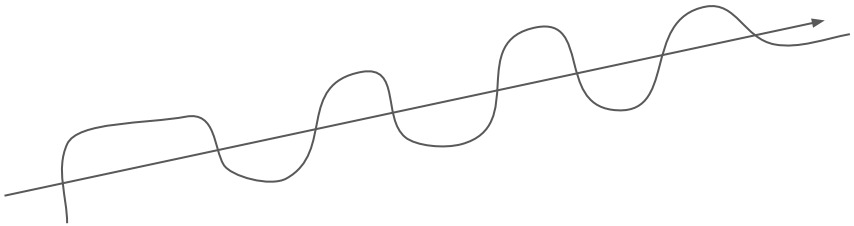
~1024%

Cumulative Percentage Gain in Stock Price



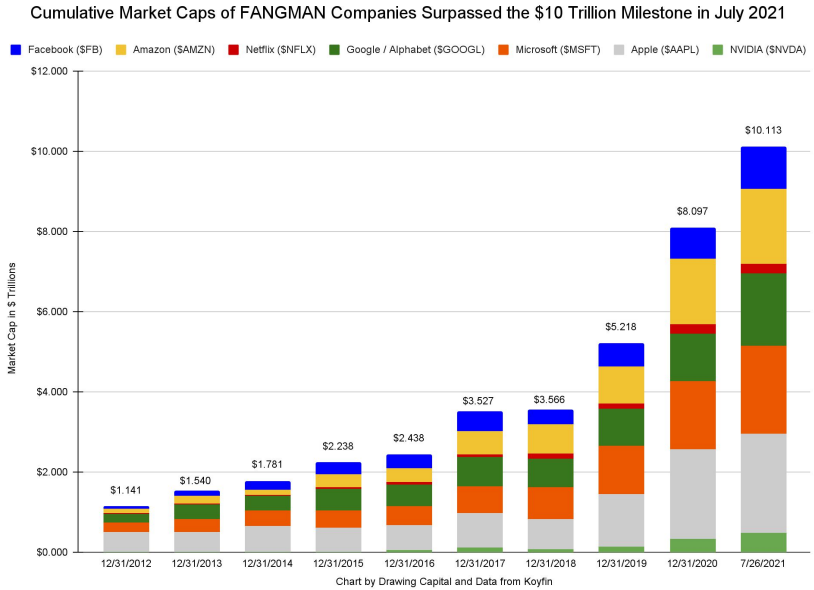
Data Source: Koyfin. Data is measured from August 2011-June 2021 for stock price data. Data is measured for the past 20 years for revenue data. Any stock, options or futures symbols, companies or investment products displayed are for illustrative purposes only and are not intended to portray recommendations. Past performance is not necessarily indicative of future results.

Strong Behavioral Psychology is Needed to Withstand Stock Price Drawdowns for High Quality Companies



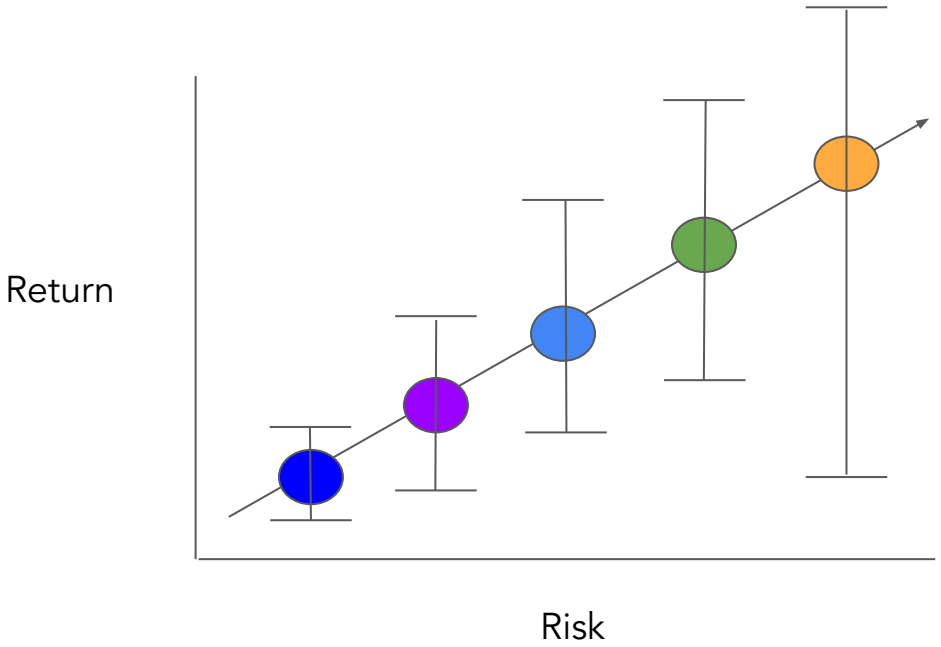
Big Tech Company / "FANGMAN"	Number of Price Drawdowns that Were -10% or More Severe from January 2013-July 2021
Facebook ($FB)	7
Amazon ($AMZN)	5
Netflix ($NFLX)	6
Google / Alphabet ($GOOGL)	5
Microsoft ($MSFT)	3
Apple ($AAPL)	6
NVIDIA ($NVDA)	2
Vanguard's S&P 500 Index ETF ($VOO)	3

Data Source: Portfolio Visualizer



Data Source: Portfolio Visualizer and Koyfin. Any stock, options or futures symbols, companies or investment products displayed are for illustrative purposes only and are not intended to portray recommendations. Past performance is not necessarily indicative of future results.

Modification of the Capital Market Line Implies 3 Factors: Returns, Risk, and Uncertainty in Achieving Target Returns



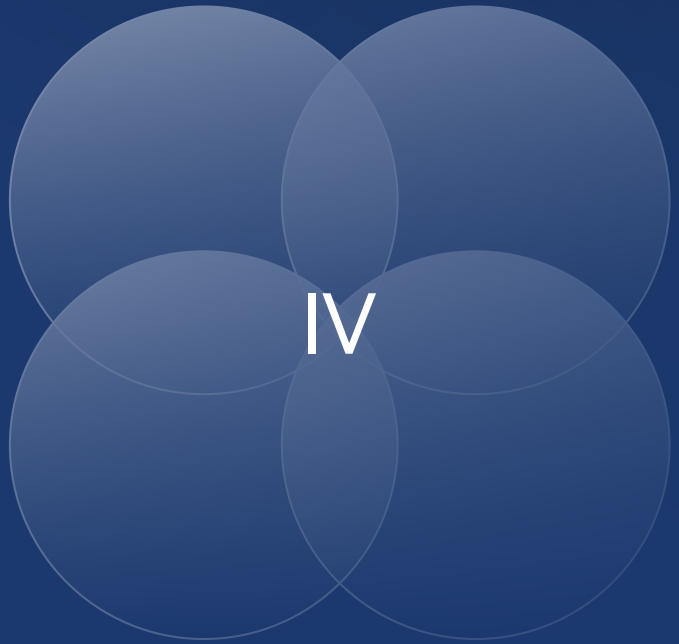
2 Thoughts about Building a Portfolio

Diversified Portfolio

1. Reduction or near elimination of idiosyncratic, company-specific risk
2. Ability to capture the market beta and the growth of a basket of companies
3. Less depth and more breadth

Concentrated Portfolio

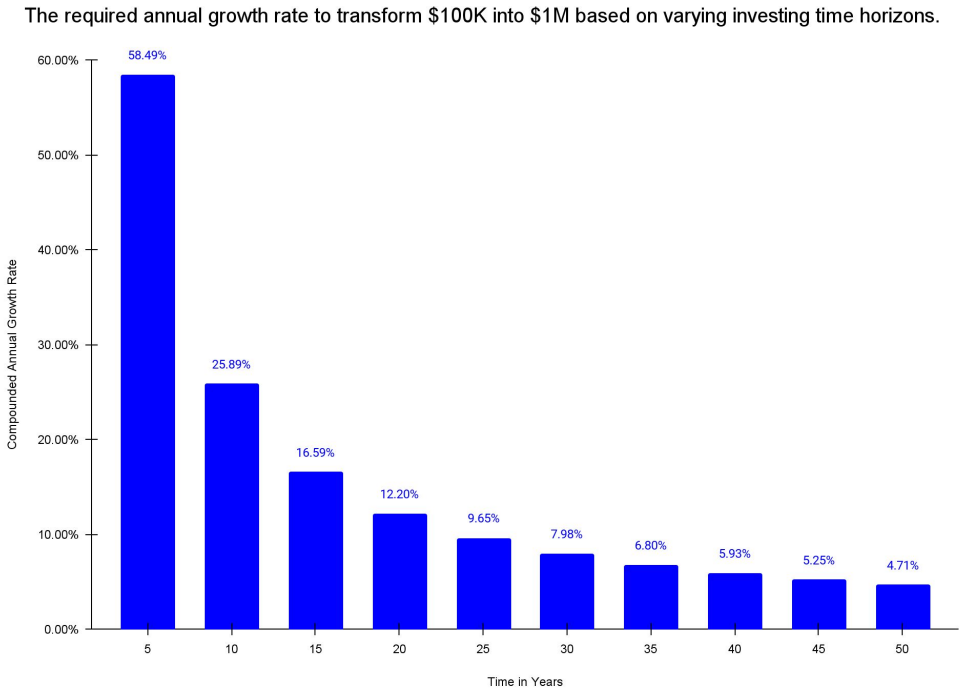
1. “Know what you own” inside a portfolio with significant focus
2. Winning & losing positions have substantial weight in the portfolio
3. High opportunity cost



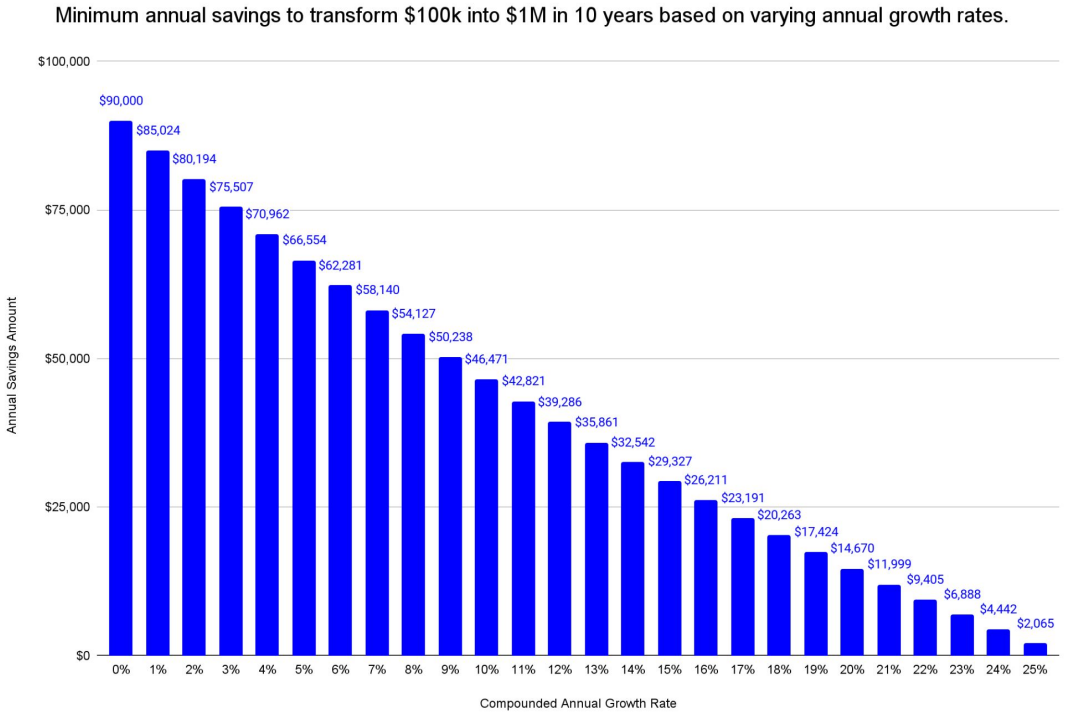
Power of Compounding Returns

- Higher compounded returns lead to higher investment multiples and enable less sensitivities for saving and more emphasis on growth & lifestyle enjoyment.
- Companies with higher revenue growth rates have historically experienced higher stock price appreciation.
- Only a select group of companies in the S&P 500 Index have annualized revenue growth rates that exceeded 25%+ in the past 5 years.

Relationship Between CAGR and Investing Time Horizon

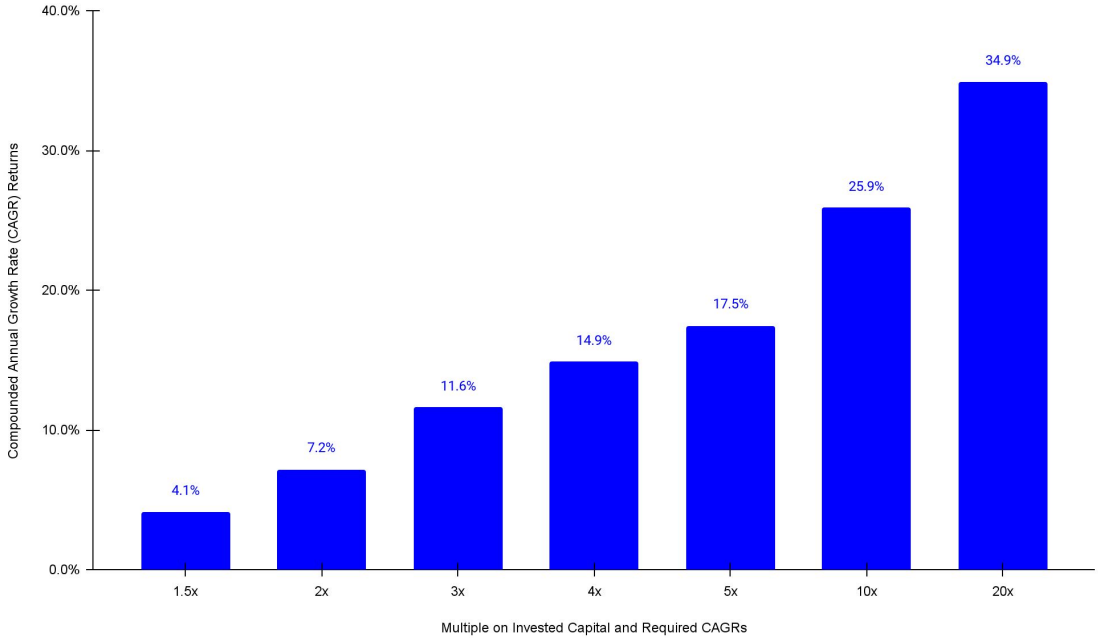


Inverse Relationship Between Required Savings & Compounded Growth

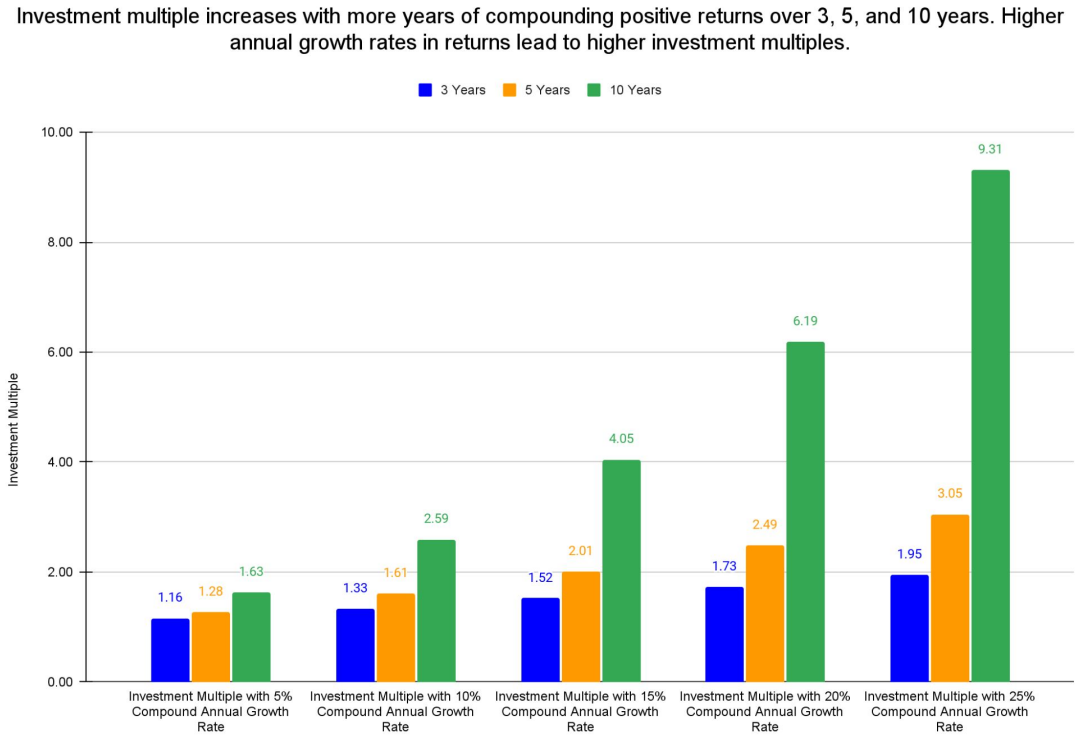


Positive Relationship Between Higher CAGR and Higher MOIC

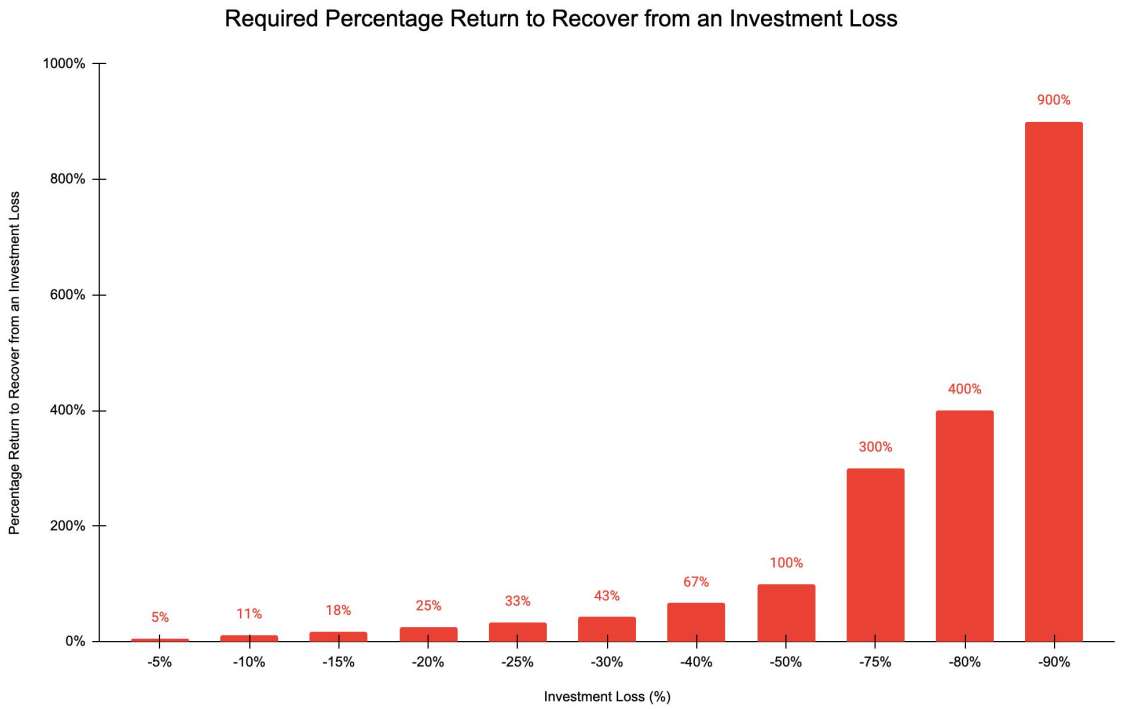
The following chart displays the required CAGR that is needed to achieve the desired MOIC in 10 years.



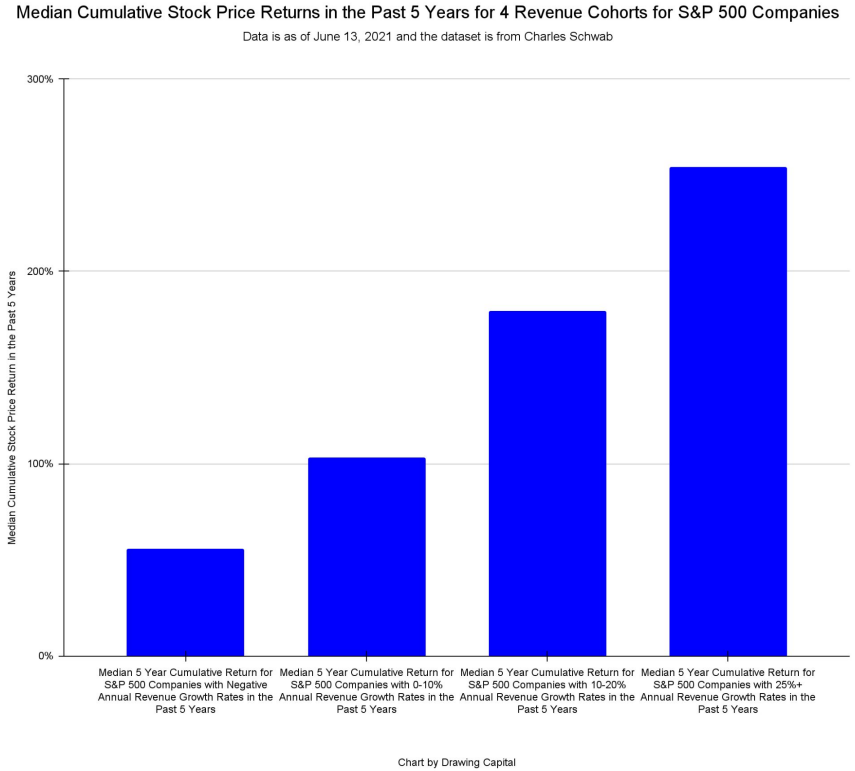
MOIC and Compounding Returns Over Long Time Periods



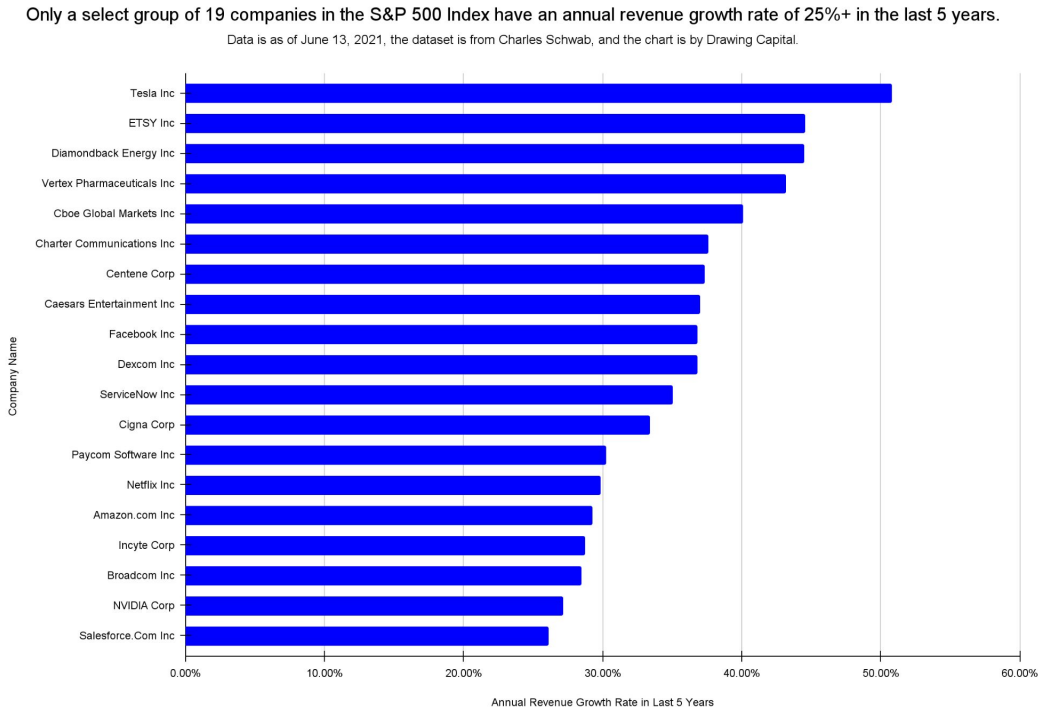
Loss Recovery and Breakeven Analysis

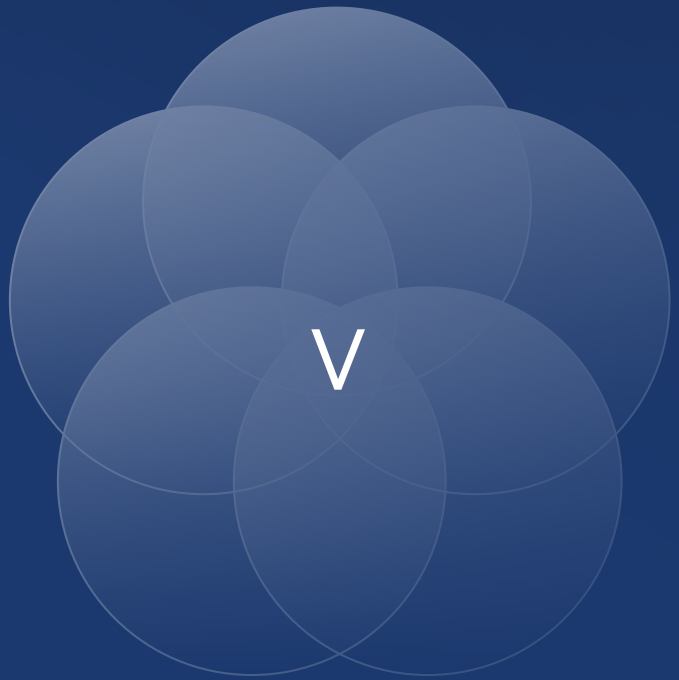


Companies with Higher Revenue Growth Experienced Higher Stock Price Appreciation



Only 19 Companies in the S&P 500 Index Have 25%+ 5-Year Revenue CAGRs





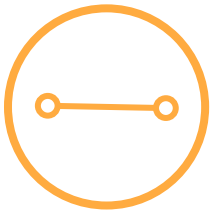
Data-Informed Decision Making for Evaluating Companies

- What are 7 questions that are useful in evaluating companies?
- How do companies benefit from stock price appreciation?

1. Is This Business Growing?

Revenue Growth Rate

Growth in Operating Cash Flow & Earnings Per Share

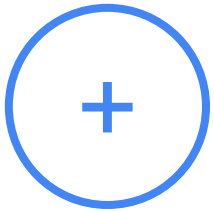


Revenue Growth Endurance

2. What is the Company Earning from its Capital Base?

1. Return on Invested Capital (ROIC)
2. Asset Turnover Ratio & EV / Revenue Ratio
3. Operating Cash Flow / Asset Ratio
4. EBITDA / EV Ratio
5. Rule of 40
6. 8%+ Hurdle Rate Achievement

3. Is the Company Benefiting from Increasing Its Size & Benefiting from Scale?

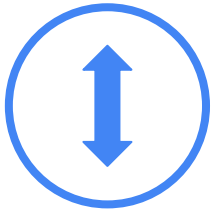


Increasing ROIC and FCF Yield Over Time

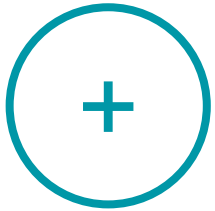
Increasing Asset Turnover Ratio and Operating Cash Flow / Asset Ratio

Economies of Scale with Margin Expansion & High Contribution Margin

4. Is the Company Increasing Its Market Share or Have Market Share Dominance?



Competition, Oligopoly, or Monopoly Business



Rising Margins Over Time

Rising Revenue/TAM Ratio

5. Does the Company Make Best-In-Class, High-Quality Products that Consumers Enjoy?

1. Revenue / S&M Ratio & Sales Efficiency
2. High Net Promoter Score
3. High Net Dollar Retention or Same Store Sales Growth
4. Viral Word-of-Mouth Marketing
5. Favorable Industry Rankings
6. Top 3 Product in the Industry Vertical

6. What is the Quality of the Corporate Leadership Team?

1. Founder's Edge
2. Significant Ownership
3. Strong Capital Allocation
4. Shareholder-Friendly
5. Pursuit of Excellence & High Competence
6. Alignment of Incentives

7. Are You Buying a High Quality Company at a Reasonable Price?

1. Underwriting Investments with High Rates of Return
2. Revenue and Cash Flow Payback
3. Future Cash Flow Potential
4. Price Multiples & Discounted Cash Flow Analysis
5. TAM Expansion
6. Business Moat with Perceived Margin of Safety

How Companies Benefit from Stock Price Appreciation

1. Ongoing Secondary Share Issuances
2. Recruiting and Retaining Talent with Cash Preservation
3. Share-Based M&A
4. Free Marketing, Branding, and Publicity
5. Conversion of Convertible Debt Reduces Total Debt
6. Ancillary Benefits, such as Index Inclusion

Summary

1. Data-informed decision-making creates a framework for allocating investments in a portfolio. Successful investing is about identifying, investing in, and correctly sizing good investments in a portfolio.

2. Dynamic asset allocation seeks to rebalance and adjust its percentage allocation over time based on financial market conditions, monetary policy, and the economic cycle. Intermarket analysis is useful in building models and frameworks for dynamic asset allocation.

3. Exponential growth is a powerful force. Higher compounding returns lead to higher investment multiples over time. There exists a correlation between high revenue growth & cash flow and stock price appreciation.

4. The outcomes from growth investing and investing in innovative technologies can be spectacularly significant, especially when maintaining a long-term investment focus.

5. Equity markets are not zero-sum. Multiple stakeholders such as companies, employees, governments, and shareholders can benefit from a rising stock price.

Resources

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