

Security Analysis:

An Intro for Some and a Refresher for Others

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Executive Summary

- Equity Securities Analysis is both science AND art
- Define Terms: There are many different approaches
- The Numbers Game: What is Important?
- Examples for various investing style preferences
- Discussion of Merits and Demerits by Style
- Beware of Bias! A peak at Behavioral Finance



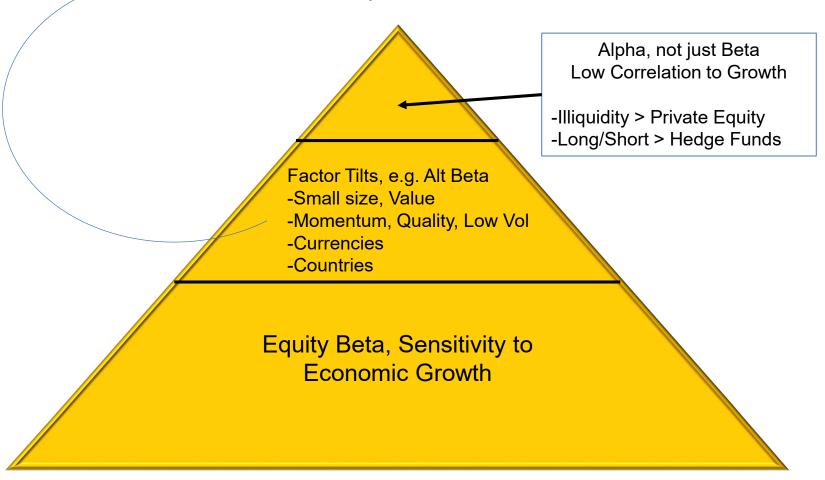
Each saying reflects some investment wisdom or perhaps style bias

- "Investing is like a beauty contest. It's not who you judge as most beautiful, it's who all the other judges will think most beautiful who wins."
- "In the short term the market is a voting machine, but in the long term it's a weighing machine."
- "The market can stay irrational longer than you can stay solvent."
- "Trees don't grow to the sky."
- Q: Why did the stock go up? A: More buyers than sellers....
- "This company has many hidden assets."



The Equities Portfolio Risk Factor Pyramid

If FCERA has Not Invested a Passive Fund, the Manager Has
Built a Process Which Emphasizes One or More Factors





Defining Terms Factors or Styles

Value: Everyone wants a bargain, but Value is usually referring to the attractiveness of an investment based upon stock price relative to other metrics such as earnings, book value of equity, or replacement cost of assets.

Growth: Refers to economic growth, but also to revenue growth, or more likely, earnings growth. A "growth stock" typically has above average earnings and/or revenue growth, big markets, and an attractive business model.

Momentum: Refers to stock price momentum. A body in motion remains in motion, while a body at rest remains at rest. Stocks going up are expected to keep going up. Those who follow stock price charts are often momentum investors.

Quality: Refers to income statement and balance sheet characteristics.

Consistent growth, high margin, good returns on assets and equity, and perhaps low debt ratios, a long track record. "A Good Business."

Low Volatility: Stability, without big swings in price, either up or down. Consistency is prized.



If this stock is attractive, you might be a Growth investor Guess this stock....?

| FY 2019 | Current/LTM | FY 2021 Est | FY 2022 Est |
|-------------|--|--|--|
| 06/30/2019 | 12/31/2020 | 06/30/2021 | 06/30/2022 |
| 1,023,856.3 | 1,728,374.2 | | |
| 86,455.0 | 82,782.0 | | Note: \$1.7T |
| 976,492.3 | 1,679,188.2 | | Valuation! |
| 125,843.0 | 153,284.0 | 164,641.5 | 184,147.0 |
| 14.0 | 14.2 | 15.1 | 11.8 |
| 36,318.1 | 51,471.9 | 56,049.5 | 61,426.8 |
| 28.9 | 33.6 | 34.0 | 33.4 |
| 4.68 | 6.73 | 7.40 | 8.11 |
| 27.8 | 25.5 | 27.2 | 9.5 |
| | | | |
| | | | FY 2020 |
| 06/30/2016 | 06/30/2018 | 06/30/2019 | 06/30/2020 |
| | | | |
| 25.17 | 19.45 | 42.41 | 40.14 |
| 10.89 | 6.51 | 14.39 | 15.07 |
| 16.81 | 10.08 | 23.20 | 23.87 |
| 15.75 | 8.81 | 21.47 | 22.99 |
| | | | |
| 64.04 | 65.25 | 65.90 | 67.78 |
| 22.53 | 15.02 | 31.18 | 30.96 |
| | 06/30/2019 1,023,856.3 86,455.0 976,492.3 125,843.0 14.0 36,318.1 28.9 4.68 27.8 FY 2016 06/30/2016 25.17 10.89 16.81 15.75 | 06/30/2019 12/31/2020 1,023,856.3 1,728,374.2 86,455.0 82,782.0 976,492.3 1,679,188.2 125,843.0 153,284.0 14.0 14.2 36,318.1 51,471.9 28.9 33.6 4.68 6.73 27.8 25.5 FY 2016 FY 2018 06/30/2016 06/30/2018 25.17 19.45 10.89 6.51 16.81 10.08 15.75 8.81 | 06/30/2019 12/31/2020 06/30/2021 1,023,856.3 1,728,374.2 86,455.0 82,782.0 976,492.3 1,679,188.2 125,843.0 164,641.5 14.0 14.2 15.1 36,318.1 51,471.9 56,049.5 28.9 33.6 34.0 4.68 6.73 7.40 27.8 25.5 27.2 FY 2016 FY 2018 FY 2019 06/30/2016 06/30/2018 06/30/2019 25.17 19.45 42.41 10.89 6.51 14.39 16.81 10.08 23.20 15.75 8.81 21.47 64.04 65.25 65.90 |

| | | This Year |
|----------------------------|------|--------------|
| Price to Revenue | 11.0 | 10.2 |
| Price to Earnings (P/E) | 33.6 | 30.8 |
| P/E to Growth | 1.32 | 1.14 |
| Price to Cash Flow | 25.4 | |

Note the Growth in Revenue and Earnings!

Tremendous Profitability!



INVESTOR'S BUSINESS DAILY'





Growth

- A Growth Stock is one with higher revenue and earnings growth (than the average stock).
- Long and consistent growth is preferred to erratic or one time growth.
- Growth is often related to a theme, such as Internet Subscribers, Cell Phone penetration, Electric Vehicle adoption, Genetic Engineering.
- This approach works if the growth *rate* or the *growth period* lasts longer than expected.
- "You have no idea how big this will become."
- Downside? Poor execution, competition, smaller than expected market, technological obsolescence.



If this stock looks attractive, you might be a Value investor Guess this stock.....?

| In Millions of USD | FY 2018 | FY 2019 | Current/LTM | FY 2021 Est | FY 2022 Est | | |
|--|------------|------------|-------------|-------------|-------------|--------------------------------|-----------------|
| 12 Months Ending | 12/31/2018 | 12/31/2019 | 12/31/2020 | 12/31/2021 | 12/31/2022 | | |
| Stock Price | | | \$ 110.00 | | | | |
| Market Capitalization | 207,009.7 | 226,820.1 | 213,519.6 | | | | |
| Enterprise Value | 233,161.7 | 252,924.1 | 257,151.6 | | | Price to Cash Flow (2018) | → 7.0X |
| Revenue, Adj | 159,037.0 | 139,574.0 | 93,972.0 | 135,846.2 | 140,817.0 | Price to Revenue Price to Book | 2.74X _1.37X |
| Growth %, YoY | 24.6 | -12.2 | -32.9 | 43.8 | 3.7 | Debt/Equity | 16.1% |
| EPS, Adj | 8.34 | 6.00 | -2.87 | 4.47 | 5.83 | | |
| Growth %, YoY | 137.6 | -28.1 | | | 30.3 | | |
| Cash from Operations | 30,618.0 | 27,314.0 | 10,577.0 | | | | |
| In Millions of USD except Per Share | FY 2015 | FY 2016 | FY 2018 | FY 2019 | FY 2020 | | |
| rei Silale | F1 2013 | F1 2010 | F1 2016 | F1 2019 | F1 2020 | | |
| 12 Months Ending | 12/31/2015 | 12/31/2016 | 12/31/2018 | 12/31/2019 | 12/31/2020 | | |
| Total Equity | 153,886.0 | 146,722.0 | 155,642.0 | 145,208.0 | 132,726.0 | | |
| Net Debt to Equity | 17.69 | 26.67 | 16.10 | 17.29 | 32.09 | | |
| Tangible Common Equity Ratio | 56.98 | 55.18 | 60.17 | 59.99 | 54.08 | | |
| Current Ratio | 1.35 | 0.93 | 1.25 | 1.07 | 1.18 | | |
| Cash Conversion Cycle | 13.86 | 19.71 | 12.57 | 14.85 | 15.26 | | |

All metrics indicate Value



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Value

- Value is often related to balance sheet items: assets, equity, debt, inventories, plant and equipment, deferred tax assets
- Price to Earnings (Low)
- Price to Cash Flow (Low)
- Price to Book (Equity) Value (Low)
- Asset Value to Replacement Cost (Low)
- This approach works when: business recovers, assets are monetized, or value is "unlocked."
- "It's not as bad as it looks."
- Downside? "Value Trap" or "Cheap for a Reason"



If this stock is attractive to you, you might be a Quality Investor Guess this Stock.....?

| In Millions of USD | FY 2019 | FY 2020 | Current/LTM | FY 2021 Est | FY 2022 Est | |
|-----------------------|------------|---------------------|-------------|---------------------|------------------|-------|
| 12 Months Ending | 06/30/2019 | 06/30/2020 | 12/31/2020 | 06/30/2021 | 06/30/2022 | |
| 12 Months Ending | 00/30/2019 | 00/30/2020 | 12/31/2020 | 00/30/2021 | 06/30/2022 | |
| Market Capitalization | 274,645.9 | 296,503.2 | 313,571.7 | | | |
| - Cash & Equivalents | 10,287.0 | 16,181.0 | 11,941.0 | | | P/E |
| + Preferred & Other | 1,313.0 | 1,254.0 | 1,244.0 | | | |
| + Total Debt | 30,092.0 | 35,611.0 | 31,100.0 | | | Price |
| Enterprise Value | 295,763.9 | 317,187.2 | 333,974.7 | | | |
| Revenue, Adj | 67,684.0 | 70,950.0 | 73,975.0 | 75,467.1 | 78,163.2 | ROE |
| Growth %, YoY | 1.3 | 4.8 | 6.3 | 6.4 | | |
| Gross Profit, Adj | 33,342.0 | 36,219.0 | 38,347.0 | 39,144.0 | 40,635.5 | Net |
| Margin % | 49.3 | 51.0 | 51.8 | 51.9 | 52.0 | |
| EBITDA, Adj | 15,989.2 | 19,511.0 | 21,208.0 | 21,293.8 | 22,399.3 | |
| Margin % | 23.6 | 27.5 | 28.7 | 28.2 | 28.7 | • |
| Net Income, Adj | 11,099.4 | 13,182.5 | 14,519.5 | 14,831.0 | 15,584.5 | > |
| Margin % | 16.4 | 18.6 | 19.6 | 19.7 | 19.9 | |
| EPS, Adj | 4.27 | 5.12 | 5.62 | 5.70 | 6.06 | • |
| Growth %, YoY | 2.4 | 19.9 | 19.3 | 11.2 | 6.4 | |
| Cash from Operations | 15,242.0 | • | 19,033.0 | | | |
| Capital Expenditures | -3,347.0 | -3,073.0 | -2,806.0 | -3,193.8 | - 3,505.7 | |
| Free Cash Flow | 11,895.0 | 14,330.0 | 16,227.0 | 14,745.9 | 15,522.1 | > |
| 2/17/2021 | | | | | | |

Profitable

- Consistent
- Steady Growth

3/17/2021

21.6

4.5

27.78

17.99







Quality

- Consistency of Revenue and Earnings
- Steady, if unspectacular growth
- Often an established household name:
- McDonalds, P&G, Allstate
- Good profitability: Net Margin, ROE*
- Reasonable valuation: Price/Earnings, Price/Revenue
- Downside? All is well-known and there is no catalyst, aka it is a boring stock.

^{*} Return on Equity



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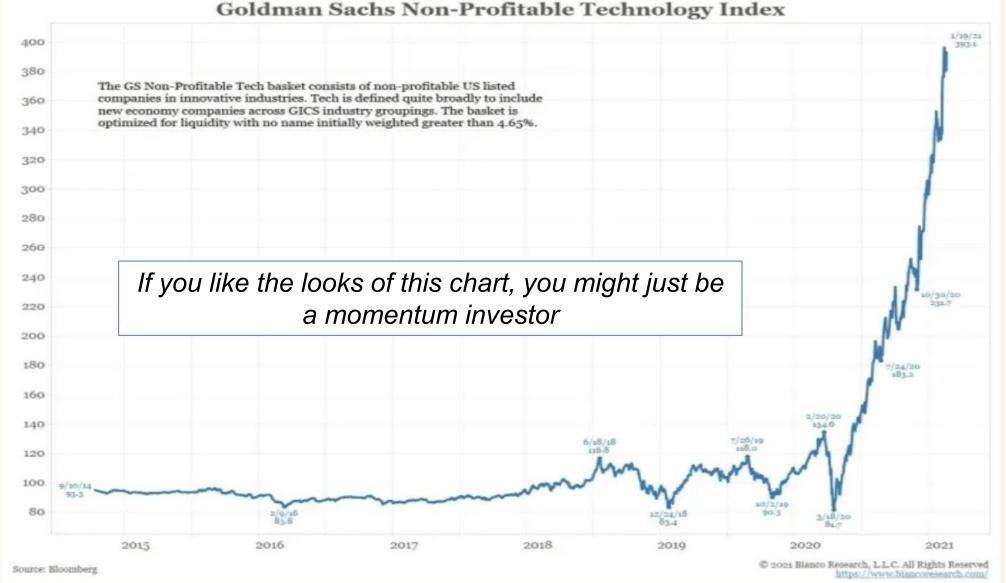
INVESTOR'S BUSINESS DAILY*



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Real-time quote and/or trade prices are not sourced from all markets.

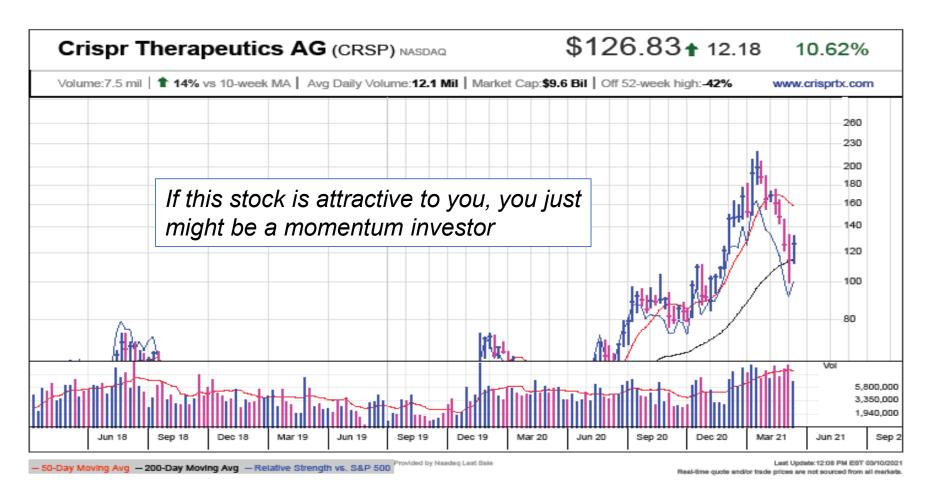






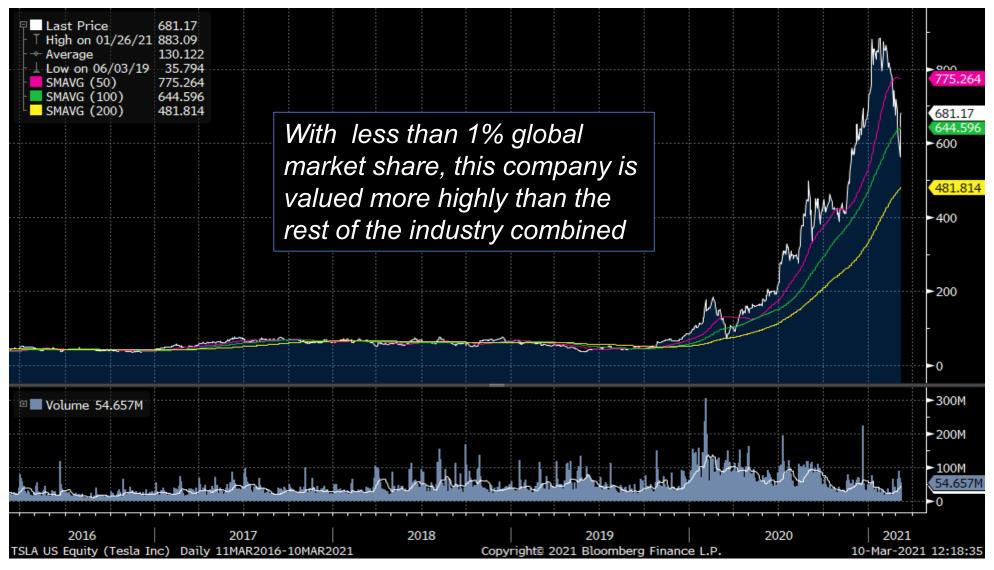
Gene Therapy will change everything!

INVESTOR'S BUSINESS DAILY'





If this was attractive to you in 2020, you might be a momentum investor



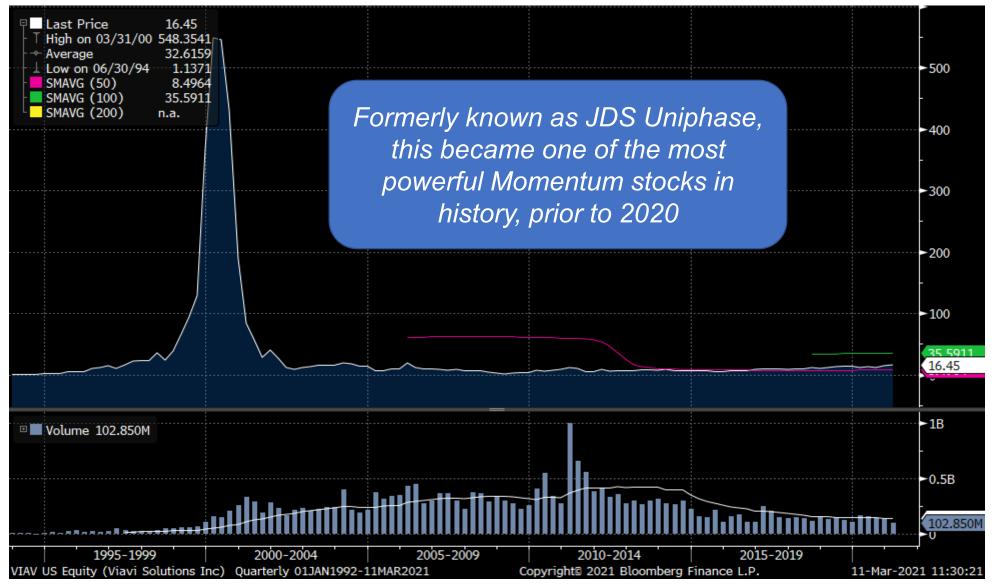


Momentum

- A New Technology or Market may be underappreciated
- As a stock is "discovered," more people flock to it
- The Stock can become detached from the underlying fundamentals
- Often built upon a "story"
 - Internet subscribers: Netflix, Google
 - Cell Phone adoption: Nokia, Blackberry, Motorola
 - Social Media "network effect": Face Book
 - Introduction of the TV, or Radio
 - Railroads
 - Sharing or "Gig" Economy: UBER, Door Dash
- Enthusiasm is usually chart based. Hedge funds and options can amplify the up and downward volatility
- "This thing is going to the Moon!"
- Downside? Gravity, i.e. Momentum can falter, stories can unravel and the big money is ruthless. There is no true (stock) love!!!



After the (stock) love is gone.....





Is One Investing Approach Better than Another?

- Any stock can outperform the "market" for a day, a week, a month
- The Key is the baseline for EXPECTATIONS, built into the stock today
- Since the pandemic downturn, this has been a Momentum Market
- Styles or Factors can "work" or "not work" for extended periods
- Good Managers develop a thorough and consistent process
- Bad managers often chase what appears to be working now
- "Style Drift" means being inconsistent, modifying the investment process. (When does "adaptable and flexible" become "style drift?")

Factor Tilts: Growth? Value? Quality? Size? Low Vol?

17/2021 22



Beware of Behavioral Bias!

- Investing: not always coldly rational and, at times, hotly irrational
- Hence, our biases influence our investing behavior
- Risk is Subjective: i.e. each of us views risk differently
- No two investors interpret Facts and Fundamentals the same
- Decision makers are inherently inconsistent even within themselves
- Investors make cognitive errors

Self-Deception: "I am an expert now in epidemiology"

Emotion: "I am such a genius" or "I am such an idiot!"

Social Influence: FOMO*, stock tips from the UBER driver

Heuristic simplification: (bad rules of thumb)

^{*} Fear of Missing Out.



Common Biases (For Future Study)

- Overconfidence and illusion of control
- Self-Attribution Bias
- Hindsight Bias
- Confirmation Bias
- The Narrative Fallacy
- Representative Bias
- Framing Bias
- Anchoring Bias
- Loss Aversion
- Herd Mentality



Summary

- Equity Investing is part art, part science
- Stocks reflect the sum of the beliefs of all market participants
- Some say it is not a stock market, but a market of stocks
- If it were easy or predictable, all profits would be quickly arbitraged away: i.e. everything instantly would get to where it should be
- There are many different factors/styles, and no factor/style works always or in every investing environment
- Consistency and flexibility are both important, but hard to reconcile
- Every investor has certain investing preferences
- Every investor also has behavioral biases
- It is hard to win, harder to win consistently, and even harder to predict who will win consistently



Appendix: Investing Glossary

P/E: Price/earnings ratio, and shorthand measure of stock valuation. Low is preferred to High.

"Market Cap": Short for market capitalization. Shares outstanding X share price = market cap. Amazon and Apple have a high or large market caps, while TG Therapeutics is fairly small

Net Margin: Net income divided by revenue. High is preferred to low, but good stocks can have low margins too. Improving margin is preferred to deteriorating.

eps: Earnings per share, or net income/shares outstanding

P/E to Growth: Price/earnings ratio per unit of growth, either backward or more likely forward looking. High values mean "expensive" and low values mean "cheap." One does must ask about the quality and sustainability of the growth measure. Is it due to unusual items, recovery from some disaster, etc.

Market Cap to Rev: Often contrasted or compared with net mgn. Stocks with High Mkt Cap/Rev often also have very high net mgn, and vice versa. High Market Cap to Revenue might mean "expensive."

Debt/Equity: Total debt outstanding divided by book equity value. This indicates the degree of leverage. High borrowing usually has high interest expense and can indicate vulnerability to any downturn. Low debt is preferred, but not necessarily no debt. Prudent borrowing can augment returns.

Interest Coverage: Cash flow to interest expense. More cash flow provides a cushion for making interest payments. Bond analysts like this number, as do lenders.

Size; e.g. Large Cap, Small Cap: Refers to market capitalization, but can also be measured by revenue or assets. They do not always go together.