APPALACHES capital

What is Value Investing?

More Than P/E Ratios and Yields

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Reflections on Investing is a long form written series of content related to designing an investment process generally. The series is intended to add value to other investors as they think about their own investment process, as well as industry clients as they evaluate the process of their own advisors. This series assumes that skilled active management is able to add value. This is provided for informational purposes only and **is not** a detailed description of the methods by which Appalaches Capital manages client assets. Please see all disclosures at the end of this document.

Introduction

There is nothing here that has not already been said, but what I am saying has arguably not been *heard*. Value investing, in its simplest form, is "buying a security at a price below its intrinsic value". This idea has been discussed for decades, and yet, there still seems to be confusion about what value investing looks like in practice. It is not just buying stocks at single digit Price to Earnings ratios (P/E) or those with double digit dividend yields and hoping for the best. Value investing is also not a discipline in which the investor ignores earnings growth, instead choosing to only look at the present year's financial statements. The idea of value investing has been oversimplified in an effort to easily illustrate the difficult process behind a simple statement. Afterall, how are we supposed to determine intrinsic value? Quick heuristics and the need to avoid unquantifiable ideas lead to broad and unhelpful generalizations. From my perspective, there are no "value stocks" or "growth stocks", only good businesses and bad businesses whose shares trade at favorable or unfavorable prices. So, what exactly is value investing?



Value and Growth are Not Mutually Exclusive

The impetus for writing this piece came from a conversation with someone who had read a recent quarterly letter of Appalaches Capital. In short, they were surprised by my inclusion of Alphabet Inc. (colloquially known as Google) in the portfolio. Appalaches after all, is supposed to have a value orientation, yet Alphabet is not considered a "value stock". Alphabet is a member of the headlining "Magnificent Seven", has operations that consist of developing Artificial Intelligence (AI) models, and by all measures, has seen a high rate of earnings growth since its founding. Under a naïve classification of stocks, Alphabet would be considered a "growth stock". In fact, this assumption wasn't limited to just the one individual reading the quarterly letter; it is a comment that I have heard repeatedly from various responses. So why is there so much confusion regarding "growth stocks" and value investing?

Value investing does not necessarily entail only purchasing securities trading at basement valuations while shunning businesses with above average prospects trading at average prices. A business trading at *five* times current earnings can be just as expensive as a business trading at *fifty* times current earnings. Now, why is that? The value of a business is determined by its future cash flows; today's cash flows may or may not be truly representative. Short-hand calculations using this year's earnings do not paint the full picture of the company's earnings over its lifecycle. This full picture is difficult to quickly quantify and is often difficult to quantify at all. Both investors and academics substitute this difficult question with one that is easier to answer: "How is the business being valued on what we can see today?" This question, along with other contributing factors, has led to the conflation of poorly named "value stocks" with value investing.

Take the following example of two bond-like securities: Security A pays out \$1 per year as a coupon with no growth, while Security B pays out an initial coupon of \$0.50 that grows 15% annually. Both securities will mature after 10 years and return a principal value of \$10. Now assume that both securities are equally risky, and that your required return for each is an annual rate of 10%. What should you pay for Security A? How much for Security B?

As shown in Exhibit 1, Security A would be worth \$10.00 today, while Security B would be worth approximately \$9.45. Their intrinsic values only differ slightly from one another. Determining their value is simple math in this case.



Exhibit 1. Net Present Value of Cash Flows of A & B

Year	1		2		3		4		5		6		7		8		9	10	NPV	
Security A																				
Cash Flow	\$	1.00	\$	1.00	\$	1.00	\$	1.00	\$	1.00	\$	1.00	\$	1.00	\$	1.00	\$	1.00	\$ 11.00 (\$1+\$10)	\$10.00
Security B Cash Flow	\$	0.50	\$	0.58	\$	0.66	\$	0.76	\$	0.87	\$	1.01	\$	1.16	\$	1.33	\$		\$ 11.76 \$1.76 + \$10)	\$9.45

We've established that their values are fairly similar. Yet, try considering it from the "value stock" and "growth stock" perspective. Assume that the securities are now stocks, replacing the coupon payments with earnings per share. Assuming all earnings are paid out, at fair value, Security A would have a P/E ratio of 10x, while Security B would have a P/E ratio of 19x. Using a simple P/E ratio to determine which is more attractively priced would be meaningless. If Security B traded at a P/E of 15x while Security A traded at a P/E of 10x, would it make sense to say that Security A is better value? Of course not! Growth is clearly a determining factor of intrinsic value. So long as the returns on new investments are in excess of the cost of capital, higher growth rates lead to higher multiples.¹

This brings us back to Alphabet. When we purchased the shares, the business was trading just below 20x consensus earnings.² As shown in the example above, this is not necessarily expensive if you expect growth (even if less than 15% per year), and significantly less so if you assume the business will continue to grow with the broader economy beyond the ten-year period shown above. Consensus estimates also did not seem to account for the improving cost structure of the company. It was (and still is) my opinion that operating margins at Alphabet can increase in the coming years as they "durably reengineer the cost base". With sustainable topline growth and expanding margins, 20x consensus doesn't appear to be that expensive at all. Should we really exclude such a situation from the bounds of value investing?

The Value Factor and Value Investing

In fairness, I believe that part of the misunderstanding is due to the proliferation of *factors*. Factors, sometimes more descriptively called risk premia, refer to the systematic grouping of stocks based on some metric or attribute. William Sharpe is considered the first to pioneer the idea of factor-based investing, with the idea that a security's risk and return can be determined by its *beta*, or sensitivity to the market.³ Fama and French expanded on this idea by finding two additional factors, creating a three-factor model using a market beta, a size beta, and a <u>value beta</u>.⁴



If you aren't familiar with factor construction, this is roughly how it works:

- 1) A metric, such as the Price to Book Value (P/B) metric used in the original value factor, is calculated for the universe of stocks.⁵
- 2) Each stock is ranked based on this metric. I.e., the stock with the lowest P/B ratio is given rank #1, the stock with the second lowest P/B ratio is given #2, and so on.
- 3) A portfolio is formed by typically going long the highest decile (top 10%) and short the lowest decile (bottom 10%).
- 4) The performance of the long-short portfolio is tracked over time. This performance is considered to be the factor's performance.
- 5) The performance of single stocks can be regressed against the performance of the portfolio. This will yield a beta, showing how sensitive a stock is to the factor.

What researchers have found is that certain factors produce excess returns over time. In terms of the original value factor, this means that stocks with low P/B ratios had historically outperformed stocks with high P/B ratios. There are two schools of thought regarding this outperformance; either low multiple stocks carry higher risk, and investors therefore require higher returns, or low multiple stocks are consistently undervalued due to systematic errors in investor behavior. While the value factor is meant to capture exposure to stocks trading at low multiples, this doesn't guarantee that these stocks are actually trading at a discount to their intrinsic value. As the example shown in Exhibit 1. illustrated, high multiples aren't always indicative of overpriced securities. Similarly, a stock trading at a trailing P/E of 5x can be expensive if the earnings power of the business is expected to quickly erode. Finally, while low multiple stocks *as a group* tended to show higher returns, this does not necessarily hold true for any individual stock.

Other factors that have shown good results historically include profitability, size, investment, momentum, and quality. When investors conflate the returns of the value factor with value investing, it implies that assets with high exposure to these other factors must also be "value stocks". Take the momentum factor for example. Assets whose prices have risen have historically been more likely to see further appreciation in their price. The momentum factor has performed very well over time. If fundamental investors believe that asset prices should reflect intrinsic value in the long run (otherwise, what's the point of active management?), then this too must show that stocks that have gone up recently are undervalued. Yet, most would hesitate to call "momentum stocks" "value stocks".

Most fundamental investors would not be satisfied with this train of logic, which is exactly my point. Just as investors would struggle to say that a stock is undervalued because its price has risen 10% in the



last week, they should also struggle to say that a stock is undervalued because of its low multiple. While these stocks as a group may tend to be undervalued, whether it's due to delayed reactions to new information (momentum) or due to aggressive risk aversion (value), this does not mean that any individual stock should be considered to be undervalued on this information alone. In short, the *value factor* is not necessarily *value investing*.

Some Thoughts on Normalized Earnings

The biggest challenge with valuation is determining the future cash flows of the business. Today's cash flows may or may not be representative of what should be expected in the future. Valuations should be considered on a projected normalized basis to have any meaning.

One-Time Expenses

The simplest form of normalization is well understood by most investors. Companies will often adjust reported earnings to exclude the costs of one-time expenses and outflows so that the results are more comparable to prior and future periods. Typically, these one-time costs are broken out with reasonable visibility and disclosure which makes the exercise easier. One-off expenses related to adverse results of litigation would be a fair example. Unless a company is consistently negligent or out of compliance with regulations, we shouldn't expect the expenses to be recurring. We would have a reasonable basis to add these back.

Unfortunately, not all one-off expenses have a reasonable basis to be added back. Businesses pursuing roll-up strategies (serial acquirers) will often add back acquisition-related expenses. These are one-off in nature, but they can still be considered recurring if acquisitions are expected to continue and are necessary for growth. As another example, some companies seem to constantly be writing off restructuring charges as they maneuver their operations to meet the current demands of the market. While these are meant to be one-off in nature, they can also become a recurring habit. Adjustments of this nature should be reflected in truly normalized earnings.

This seems straightforward, doesn't it? Adjusting for these kinds of expenses is well-understood and is necessary to the valuation process, but likely doesn't contribute to finding bargains. The analysis is a bit commoditized, and these adjustments are likely accurately accounted for in the share price.



Temporary Expenses and Cost Structures

What about expenses that aren't necessarily one-time in nature, but are instead discretionary? Businesses often make investments for growth which can be expensed or capitalized depending on their treatment via GAAP. Investments for growth buried in R&D or SG&A can be difficult to tease out of the financials, but doing so can paint a better picture of the normalized earnings of the business. If you were to instead run the business for cash by halting the discretionary reinvestment, what do the earnings look like? Is this a reasonable profile for the company in a decade?

In my opinion, this kind of normalized earnings analysis is what really moves the needle for stock pickers. It's often a less than obvious detail that isn't always reflected in the share price. Take Amazon for example. Sitting here today, it's known as one of the greatest performing stocks of the last two decades. However, it clearly was not obvious to the market; the normalized earnings power of the business was difficult to ascertain. In the early 2000's, Amazon showed limited GAAP profitability, although free cash flow was incrementally better. At the end of 2006, the shares traded at a trailing P/E of over 50x.

Yet, there were investors who saw the value of Amazon, acknowledging the wide discrepancy between reported earnings and normalized earnings. Nick Sleep, who managed the very successful Nomad Partnership with Qais Zakaria, said this about the company in 2006:

"Take for example the current controversy at Amazon.com. Last year the company reported free cash flow of just over U\$500m, indeed it has been around this number for the last few years. What is important is that the U\$500m is after all investment spending on growth initiatives such as capital spending, but also research and development, shipping subsidy, marketing and advertising and price givebacks.

...

By our estimates these discretionary investments, over and above that required to maintain the business are in the region of a further U\$500m, excluding price givebacks. This is our subjective assessment of the discretionary investment spend and implies the management could, if so inclined, cancel the discretionary growth spending and instead return around U\$800m per annum to investors after taxes."

- Nick Sleep; December 31st, 2006



Amazon's discretionary growth spending could be turned off at any time. The business likely would have continued to grow at an above average pace, but the incremental benefit from reinvesting the \$500m showed exceptional returns. It is also of importance to note the flexible nature of these expenses: there are no barriers to exit. Amazon could pursue projects, promotions, and new strategies without the risk of being permanently committed to any of them. A headline P/E of 50x was shown to be a P/FCF of just 20x (Amazon's market capitalization at the time was approximately \$16b).

This more subjective side of normalized earnings, sometimes called "owner's earnings", can clearly be more subtly nuanced. In the case of Alphabet, there are a few components at play. While the news stations like to harp on the bloated headcount at the company, this provides an opportunity for additional margin realization. Additionally, Alphabet's "Other Bets" operating unit is one that burns through cash in an effort to find new business opportunities for the company, including its self-driving car service, Waymo. This spending could be stopped (although I am not suggesting that it would), and is not core to Search, YouTube, or Google Cloud. I will once again say that while Alphabet's shares were trading at 20x forward earnings, it should be reasonable to say that the cost structure going forward could be lower than what it looks like today. With this view, it becomes easier to see how Alphabet could be undervalued.

The Value in Returns on Invested Capital

It's well understood by the market that businesses with higher returns on invested capital (ROIC) should trade at higher multiples. This too is a direct outcome of the math behind valuation. Simply put, businesses that can grow while also spinning off cash to shareholders through buybacks or dividends will return more cash to shareholders over time than businesses that must reinvest their earnings to grow at similar rates.

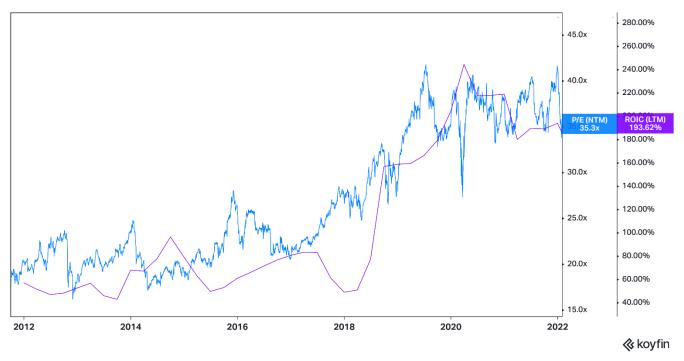
Businesses that see incremental gains in ROIC also tend to see multiple expansion. Just like normalized earnings, the key differentiator to ROIC is not what is happening today, but what the returns on incremental invested capital will be going forward. Think of it this way: a steel producer has two ways to grow sales. The first of which is producing more steel. This path would require additional plant investments, more employees, selling costs, and so forth. The incremental return on invested capital is likely not very different from the current ROIC of the business. On the other hand, a steel producer could grow sales by realizing higher prices on its



product. Higher prices have no incremental cost and do not require incremental investments. Unfortunately, steel is a commodity: steel producers tend to be price takers in the marketplace.

However, some businesses can set their prices without the worry of losing volumes. Pricing power can be incredibly accretive to ROIC. Verisign, a company that manages the network infrastructure behind the .com and .net domains, is a great example. Each year, those hosting a website on a .com or .net domain must pay Verisign a fee. Verisign has the exclusive license to manage the infrastructure for these domains and can therefore raise prices without the fear of losing volume to a competitor. Regulatory bodies acknowledge this and limit the price increases to remain under a specified cap each year, but Verisign is still able to achieve near 100% incremental margins on new revenues.⁸





As shown in Exhibit 2, from 2012 to 2022, Verisign's ROIC increased from 50% to nearly 200%, and its P/E expanded from 20x to 35x. The amount of earnings that could be distributed continued to rise, and by the end of the period, Verisign was not only paying out all of its earnings via buybacks, but also began buying back additional shares with proceeds generated from issuing debt. Verisign's model requires no additional capital from the equity.



Today, Verisign's future growth is expected to be less robust due to fewer domain registrations, and ROIC is now at a level in which incremental changes have little effect on the valuation. Coupling this with higher interest rates, Verisign's P/E today is more comparable with 2012. Both expected growth and ROIC affect what the fair multiple on a business should be. A P/E of 20x for a company that will grow overtime without the need for additional capital can be a bargain price.

Does that mean that Verisign is necessarily trading at a good valuation today? I do not have a strong opinion. The facts look different today from how they did in 2012. The company has already realized a high level of margin expansion, meaning that earnings growth going forward is likely to be slower. The high incremental margins mean less for the business now than they once did.¹⁰

Conclusion

The value of an asset today is dependent on what the future looks like. Short-hand valuation metrics based on today's earnings can be of use but substituting them for the entire valuation process is likely not beneficial.

As I've shown, businesses that can grow economic profit should demand higher multiples, and businesses that can do so with high returns on invested capital should demand even higher multiples. Without this information, however, we cannot make a good judgement on whether or not a stock is trading at a favorable valuation. Quantitative methods that only rely on valuation multiples do not fully capture these nuances.

It is my opinion that value can be found across investment styles; it is unhelpful to limit the practice of value investing to stagnating or cyclical businesses. Above all else, value investing is about what will be seen through the windshield—not the rearview mirror. So please, look beyond today's P/E multiples and FCF yields when you think of value investing.



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Endnotes

1 For the sake of brevity, the concept of "economic profit" is not addressed in this piece. Growth can destroy shareholder value if the returns fall short of the cost of capital. Growth only adds value if the investments made generate returns in excess of the cost of capital.

- 2 According to market and analyst estimate data from Koyfin.
- **3** Sharpe, W.F. (1964), CAPITAL ASSET PRICES: A THEORY OF MARKET EQUILIBRIUM UNDER CONDITIONS OF RISK. The Journal of Finance, 19: 425-442. https://doi.org/10.1111/j.1540-6261.1964.tb02865.x.
- **4** Eugene F. Fama, Kenneth R. French, Common risk factors in the returns on stocks and bonds, Journal of Financial Economics, Volume 33, Issue 1, 1993, 3-56. https://doi.org/10.1016/0304-405X(93)90023-5.
- **5** The original value factor used Book Value to Price (B/P), but the inverse P/B is more commonly used today. For that reason, I've chosen to outline the value factor using P/B instead. The original conclusion of the paper was that high B/P outperformed low B/P, which is equivalent to low P/B outperforming high P/B.
- **6** JEGADEESH, N. and TITMAN, S. (1993), Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency. The Journal of Finance, 48: 65-91. https://doi.org/10.1111/j.1540-6261.1993.tb04702.x.
- **7** According to market and company data from Koyfin.
- 8 According to company filings and as calculated by Appalaches Capital.
- **9** Chart and data from Koyfin. Provided for informational purposes only. Not intended to be used to determine whether to buy, sell, or otherwise transact in any security.
- 10 The point here is that while incremental margins are still high, the gap between incremental margins and current margins is not as wide as it used to be. Verisign's margins are closer to a steady state than they once were, making earnings grow at a slower rate. The analysis of Verisign is provided for informational and illustrative purposes only and should not be considered an investment recommendation or financial advice of any sort.