Logica

Talking Your Book About Value (Part 1)

"Once More Unto the Breach, Dear Friends, Once More..."

Just in case you have been asleep for the past decade Rip Van Winkle style, this has been a terrible period for systematic value investors. As clients grow increasingly skeptical, pleas for forbearance on redemptions are growing louder and louder. Poorly timed advice from factor-based quants in "Time for a Venial Value-timing Sin" and "Reports of Value's Death May Be Greatly Exaggerated" turned into pennies in front of steamroller experiences for their proponents. More concerningly, there seems to be a willful refusal to explain the fundamental drivers of the value factor nearly 30 years after it was first identified; instead, we are directed to look at history as evidence of future outcomes. Like the villagers in Aesop's "The Boy Who Cried Wolf," we are now forced to evaluate whether these firms are simply talking their book or if there is genuinely something to pay attention to this time. Interestingly, we think there very well may be, but would suggest the proposed implementations from traditional managers leave investors subject to significant risk due to changing market structure.

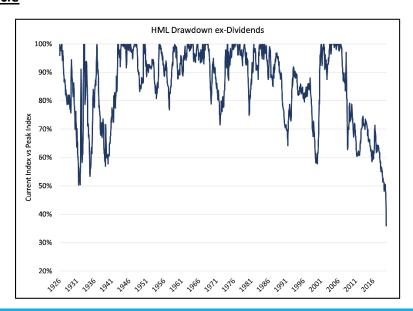
For the sake of transparency, we are going to use the Kenneth French Data Library³. Per Clifford Asness' observation that P/B is not really broken as a metric (maybe not ideal, but not broken)⁴, we'll focus on the Book/Market metric and the classic HML portfolio introduced in Fama-French 1992⁵. This analysis will be broken into three chapters, published independently to expedite the response. After a very brief introduction to the underperformance of value issue, this section attempts to address the first of three questions:

1) Is there evidence that cheap relative valuation of the Value Factor as described by Arnott and Asness leads to outperformance of the Value Factor? Does this suggest it is a good time to buy "cheap" value?

The second and third parts will be published over the next two weeks:

- 2) Do we have a working explanation for why "Value" works, and are there implications?
- 3) Given the dynamics outlined in #1 and #2, what are the implications for investor portfolio construction?

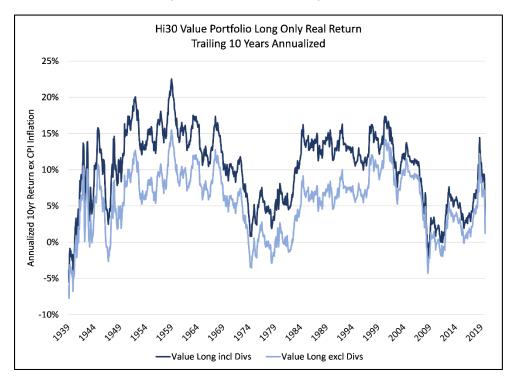
The Value Debacle





Since peaking in March 2007, the value factor defined in the Fama-French High Book/Market – Low Book/Market (HML) framework has experienced an unprecedented drawdown. Excluding dividends, historically a major source of return for the value factor but no longer, the drawdown from peak exceeds 60%.

Many explanations have been proffered, perhaps the most common being "The Fed has ruined everything," but it's important to note that the actual returns to the value <u>style</u> in long only format have been remarkably robust over the last decade. At the time of Asness' "Sin" recommendation in November 2019, the trailing 10yr ex-dividend real return to a long only value portfolio was well above the median over history. The much lower dividend yields, potentially indicative of value not being "cheap" over this time period, lowered the total return performance to the 36th percentile.



As Arnott accurately notes, the problem with value has not been the performance of "Value" longs, but rather the attempt to short "Glamour."

The Relative Valuation of Value as a Measure of "Value of Value"

Arnott et al introduce the concept of the "Relative Valuation" of the Value factor in their January 2020 paper, "Report of Value's Death May Be Greatly Exaggerated." This is defined as the ratio of Book/Price of the High Book/Price segment divided by the B/P of the Low Book/Price segment. Asness replicates this analysis, but inverted, with his "Value Spread" in his Nov 2019 blog post, "It's Time for a Venial Value-Timing Sin." They are functionally identical; Asness has simply flipped the ratio. While Asness' language borrows from the academic literature⁶, it is less precise (a ratio is not a spread) and we're going to reference Arnott's Relative Valuation metric going forward.

Writing at slightly different time periods, Asness in November 2019 and May 2020, and Arnott in January 2020, both cases make the argument that value stocks have become relatively attractive. Again, Asness



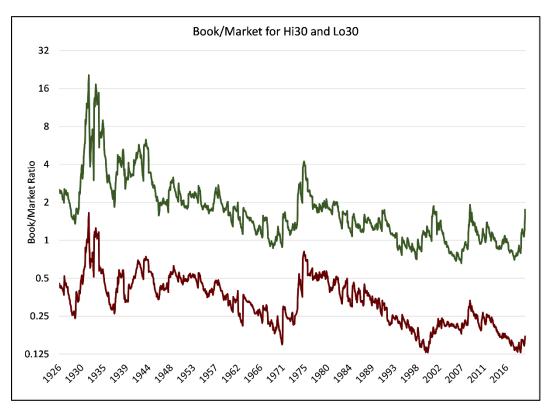
is a little less precise in his language while Arnott acknowledges that relative valuation cheapness is not absolute cheapness:

Arnott (Jan 2020): "Value has become drastically cheaper. This does not mean that value stocks are cheap in any absolute sense, only that they are unusually cheap relative to growth stocks. By historical standards, both growth and value are expensive relative to past norms."

Asness (Nov 2019): "the answer, regardless of the approach taken in measuring cheapness, is that value is currently quite cheap compared to history"

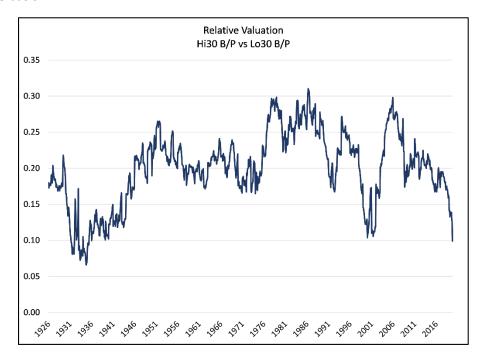
Asness (May 2020): "today looks more like a relative depression in value stock prices rather than like euphoria in the expensive stocks" and "value is still super cheap"

We must side with Arnott as the facts clearly dispute the AQR perspective. Value is not cheap, and it is certainly not "super cheap." When we look at the breakpoints for the high Book/Market systematic value basket, value was not cheap as of November 2019 with the value segment B/P at the 27th percentile of cheapness since 1927 and the 39th percentile of cheapness since 1963 (when Arnott's analysis begins and the datasets expand dramatically). As of the end of March 2020 with the recent value "crash," these numbers have shifted towards absolute cheapness relative to 1963 start dates at the 87th percentile, and moderate cheapness since 1927 at the 58th percentile. But in no way are we facing a record discount for value stocks in absolute terms, especially given the greater than 10% rally in value stocks since end of March 2020.

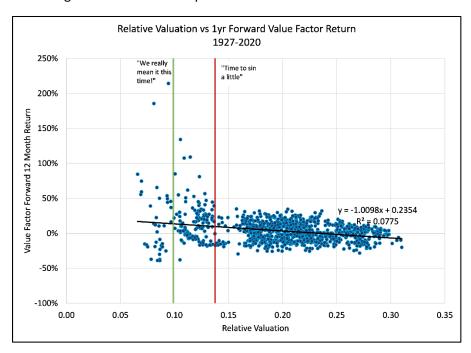


However, there remains the question of whether the absolute cheapness or relative cheapness is what matters. For these purposes, we are going to try to be very precise in our language. For measures of absolute cheapness of the long portion of the HML portfolio, we are going to refer to the Hi30 Long Only

Value and Hi30 Long Only Returns. For measures of relative valuation, which refer to the relative attractiveness of the Hi30 portfolio versus the Lo30 portfolio, we will refer to the Relative Valuation and HML Return. With Relative Valuation, the evidence begins to shift in favor of the Arnott/Asness focus on relative value. If we plot the Relative Valuation (Arnott) of HML, it is indisputable that we are quite cheap on a relative basis.



And from a <u>relative</u> standpoint, it does appear that relative valuation matters. When we plot Relative Valuation versus forward 12 month HML return (again, Hi30 less Lo30), we see that relative cheapness does indeed result in higher returns once we pass extreme valuation levels.





Unfortunately, this analysis is rife with caveats. First, we know that prior periods of extreme relative valuation have resulted in mean reversion and outsized performance for the value factor; otherwise we would not be having this debate. However, we cannot assume that history will repeat. Second, the character of the distribution of outcomes is quite important; the entirety of the value excess return appears to exist in two events over the last 100 years.

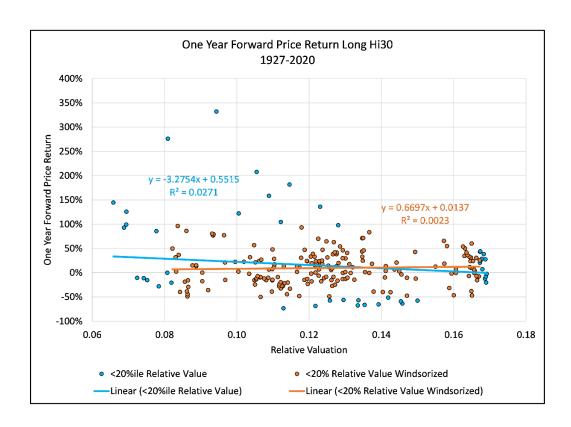
Looked at in tabular format⁷, the <u>absolute</u> return data is unattractive and gets even worse when we review the more recent dataset utilized by Arnott. From 1963 to 2020, the "cheapest" decile of relative value has produced the worst absolute Hi30 performance. More so, the probability of an absolute positive outcome has been reduced. Why in the world would we want to sin to get poorer performance?

1927-2020 Hi30 Long Only Returns						
Percentile	10%	20%	40%	60%	80%	100%
RV Limit	0.123	0.165	0.193	0.214	0.243	0.310
Average Return	14.4%	14.3%	11.8%	11.2%	7.6%	10.4%
StdDev	51.6%	22.3%	20.1%	19.2%	20.9%	13.8%
Min Return	-73.2%	-40.9%	-56.6%	-46.4%	-55.0%	-24.3%
Max Return	332.1%	75.0%	65.3%	64.8%	52.0%	50.3%
% Positive	57.6%	73.5%	73.5%	69.7%	66.7%	80.7%
Observations	236	117	234	195	186	145
# Positive	136	86	172	136	124	117
1963-2020 Hi 30 Long Only Returns						
Percentile	10%	20%	40%	60%	80%	100%
RV Limit	0.169	0.182	0.207	0.225	0.260	0.310
Average Return	6.6%	15.1%	12.5%	11.5%	6.9%	10.7%
StdDev	22.1%	19.1%	15.5%	15.2%	20.9%	14.1%
Min Return	-32.9%	-32.3%	-27.7%	-29.2%	-55.0%	-24.3%
Max Return	55.0%	75.0%	48.9%	47.1%	49.3%	50.3%
% Positive	59.6%	79.7%	78.8%	74.5%	68.6%	80.3%
Observations	57	69	137	137	137	137
# Positive	34	55	108	102	94	110

The data deteriorates even further if we look at the evidence since the publication of Fama-French in 1992, consistent with findings from Fama and French themselves in January 2020⁸.

1992-2020 Hi30 Long Only Returns						
Percentile	10%	20%	40%	60%	80%	100%
RV Limit	0.139	0.170	0.195	0.216	0.242	0.298
Average Return	7.8%	15.4%	8.9%	13.3%	6.1%	8.7%
StdDev	22.8%	18.5%	14.8%	15.5%	27.1%	13.2%
Min Return	-32.9%	-12.3%	-17.6%	-11.9%	-55.0%	-21.9%
Max Return	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%
% Positive	62.0%	80.0%	70.8%	76.1%	66.7%	77.8%
Observations	50	40	72	67	57	36
# Positive	31	32	51	51	38	28
1992-2020 HML Returns						
Percentile	10%	20%	40%	60%	80%	100%
RV Limit	0.139	0.170	0.195	0.216	0.242	0.298
Average Return	12.2%	1.4%	-5.2%	-1.8%	-3.6%	0.0%
StdDev	70.5%	50.3%	41.5%	39.2%	30.5%	33.5%
Min Return	-29.5%	-24.8%	-25.8%	-25.6%	-21.7%	-17.9%
Max Return	54.9%	29.3%	27.1%	26.0%	14.3%	12.1%
% Positive	70.0%	57.5%	26.4%	43.3%	42.1%	55.6%
Observations	50	40	72	67	57	36
# Positive	35	23	19	29	24	20

Returning to the more favorable 1927-2020 dataset, if we look at the cheapest quintile of Relative Valuation in isolation, there is virtually no predictive power for the <u>absolute return</u> for the Hi30 portfolio. In fact, if we Windsorize the dataset to remove the 5% outliers within the cheapest 20%ile of Relative Valuation (orange), there is zero predictive power at all, even within the cheapest quintile. The average return over the Windsorized dataset is only 9.7% per annum with a wild standard deviation of 32% annualized. This is hardly an attractive risk-adjusted return. While criticism can be leveled that with Windsorization you are removing the best months, it's important to note you're also removing the worst months from this sample (most expensive and worst performing) and that the objective is to demonstrate the lack of a <u>linear</u> relationship between Relative Valuation and the return of a long only Hi30 portfolio. That there is a non-linear relationship opens up a discussion we will address in Part 3 of this series.



Flipping sides, it is when we look at the results for the Lo30 (Glamour) portfolio that we start to get the answer for why anyone seems to care. We are not "leaning" value to invest in value, we just want an excuse to short the Lo30 Glamour stocks.

Absolute 1Y Forward Price Return Lo30 Glamour Portfolio

1927-2020 Lo30 Glamour Long Only Returns							
Percentile	10%	20%	40%	60%	80%	100%	
RV Limit	0.123	0.165	0.193	0.214	0.243	0.310	
Average Return	1.7%	12.3%	10.1%	8.6%	8.0%	12.6%	
StdDev	27.5%	21.2%	16.1%	15.9%	18.6%	15.0%	
Min Return	-65.5%	-47.6%	-44.5%	-29.3%	-37.1%	-24.1%	
Max Return	117.8%	49.9%	49.5%	44.1%	54.3%	67.1%	
% Positive	51.7%	76.9%	76.5%	70.8%	65.1%	82.1%	
Observations	236	117	234	195	186	145	
# Positive	122	90	179	138	121	119	
1963-2020 Lo30 Glamour Long Only Returns							
Percentile	10%	20%	40%	60%	80%	100%	
RV Limit	0.169	0.182	0.207	0.225	0.260	0.310	
Average Return	-4.8%	13.9%	10.1%	9.0%	7.5%	13.0%	
StdDev	20.7%	16.5%	12.5%	15.3%	20.5%	15.3%	
Min Return	-37.7%	-47.6%	-31.4%	-26.9%	-37.1%	-24.1%	
Max Return	35.5%	48.5%	44.1%	44.1%	54.3%	67.1%	
% Positive	38.6%	87.0%	83.9%	74.5%	62.8%	81.8%	
Observations	57	69	137	137	137	137	
# Positive	22	60	115	102	86	112	

Shorting Glamour Stocks

The evidence brings us full circle to Arnott's observation that the problem with the Value Factor has not been the absolute performance of Value stocks. The problem has been shorting the Glamour stocks¹. It is unclear whether Asness realizes the core of his argument for leaning value is really just an excuse to short expensive growth stocks, but it is debatable whether we need a PhD from Chicago to tell us that shorting Glamour worked in 2000 and that it has been a very painful strategy for the last decade. Unfortunately, the same arguments in 1998 and 1999 led to the demise of many value investors and the Keynesian adage, "Markets can stay irrational longer than you can stay solvent" comes to mind. In Cliff's defense, it is easy to infer that someone challenging the undeniable history of systematic value is a heretic, stupid and incapable of empirical analysis; unfortunately, shouting those insults does not change the facts of performance.

However, history does not make Value attractive or unattractive at the current juncture. Instead, we must understand what is driving the observed history of excess returns to the Value factor, and what has changed that may make this less true in the observable future. For that, we will wait for Part 2.





End Notes

- 1. https://www.researchaffiliates.com/en_us/publications/articles/reports-of-values-death-may-be-greatly-exaggerated.html
- 2. https://www.aqr.com/Insights/Perspectives/Its-Time-for-a-Venial-Value-Timing-Sin
- 3. We are eternally grateful to Kenneth French for his public provision of the Kenneth R. French Data library https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html
- 4. https://www.agr.com/Insights/Perspectives/Is-Systematic-Value-Investing-Dead
- 5. Fama, Eugene F & French, Kenneth R, 1992. "The Cross-Section of Expected Stock Returns," Journal of Finance, American Finance Association, vol. 47(2), pages 427-465, June
- 6. Cohen, Randolph B. and Polk, Christopher and Vuolteenaho, Tuomo, The Value Spread (April 2001). NBER Working Paper No. w8242. Available at SSRN: https://ssrn.com/abstract=267426
- 7. Note on tables and breakpoints. The quintile limits and observations of Relative Valuation include current observations since April 2019 that affect the quantity of observations, but these dates are not included in the forward return calculations as future outcomes remain uncertain. Given poor performance since April 2019 of the value factor and absolute return to value investing (down 20-30% since April 2019), inclusion of these data points would exacerbate the existing analysis.
- Fama, Eugene F. and French, Kenneth R., The Value Premium (January 1, 2020). Fama-Miller Working Paper No. 20-01. Available at SSRN: https://ssrn.com/abstract=3525096 or http://dx.doi.org/10.2139/ssrn.3525096