PZENA Investment Management

PZENA INVESTMENT MANAGEMENT SECOND QUARTER 2020 COMMENTARY

Risk isn't buying companies facing controversy or share price volatility – it's paying too much. Deep value investors exploit price volatility by acquiring companies at low prices *without* taking on more risk.

The extreme volatility in the first quarter led to one of the largest quarterly underperformances for value on record, raising age-old questions: Is value investing broken? If value's supposed to protect on the downside, why does it appear to be more volatile?

Given these questions, we begin this paper with the following hypotheses:

1. Whereas recent extreme volatility has made value investing look bad today, looking at volatility over a longer period is what should concern long-term investors.

2. Value investing looks bad today because the endpoint is so distorted. Looking at long-term performance over a variety of endpoints is a better representation of a strategy's efficacy.

As practitioners of deep-value investing, we observe that the valuation dispersion[1] remains extremely wide partially because of these two arguments. In addition, the concept that something has changed that makes value investing different than the past doesn't make sense. The practice of value investing is simply to take advantage of deep undervaluation created by investors' emotional overreaction to recent events. We believe there are opportunities to exploit these valuation anomalies without taking excessive risk.

Our analysis of the data leads us to the following conclusions:

1. Higher short-term volatility in value strategies[2] versus the market does not lead to less stable long-term results. Over the past 60 years, value strategies have exhibited stability in their long-term return pattern with volatility that is in-line with the broader market. In fact, our strategy[3] has achieved more stable long-term returns over our 25-year history than the broad market.

2. While a strategy's long-term track record is commonly used to measure manager capability, it has notable flaws. Return numbers are highly influenced by their starting and ending points. Once a manager has run a constant investment process for many years, we can look at the average experience over time periods and remove the vagaries of starting and ending points.

RISK

The destructive force of extreme short-term volatility reared its ugly head in March of this year. The S&P 500 Index reached an annualized 21-day trailing volatility of 96% in March, while the Russell 1000 Value Index spiked to 99%, and the Pzena Focused Value strategy reached 119%. This compares to readings of 8%, 8%, and 13%, respectively, at the end of 2019. Looking at monthly volatility over the last 25 years, value has been more volatile than the broad market index.

Figure 1: Monthly Volatility

1/1/96-6/30/20

	Monthly
S&P 500 Index	15.2%
Russell 1000 Value Index	15.3%
Pzena Focused Value	20.0%

Past performance is not indicative of future results.

This data begs an obvious question: Does higher short-term volatility mean that Pzena's deep-value portfolio[4] (a 30-40 stock portfolio that should have somewhat higher volatility than diversified indices) is riskier than the market?

We suggest the answer depends on how you define risk. Our concentrated deep-value portfolio certainly moves up and down more on a daily or monthly basis than its index. But do these short-term moves constitute risk? According to academic theory, volatility is risk. But should equity investors really care where their portfolio is going to be at the end of the month? It's a curious concept. Traders measure risk on a short-term basis to match their positions that are subject to the vicissitudes of the marketplace. For them, a ratio of expected return to daily volatility is inherently sensible.

But investors in the stock market are typically investing with long-term objectives – retirement, college, legacy, to fund a pension plan, to endow a charitable

[1] The difference in valuation between the cheapest and most expensive quintiles of stocks within their respective investment universes on a price-to-book basis.

[2] "Value strategies" for the purposes of this paper represent the cheapest quintile of stocks on a price-to-book basis using the largest 1,000 listed companies in the United States.

[3] Pzena Focused Value strategy, inception date January 1, 1996.

[4] Pzena Focused Value strategy.

organization, etc. Given these long-term funding obligations, doesn't it make more sense to match volatility measurements to an investment horizon?

Academics and statisticians argue that since short-term share price moves are essentially random, short-term volatility is a good proxy for long term-volatility. However, this argument doesn't match up with the data as the investment horizon extends:

Figure 2: Annualized Volatility of Returns

January 1, 1996 – June 30, 2020

	Monthly*	3-Year*	5-Year*	10-Year*
S&P 500 Index	15.2%	10.5%	6.9%	4.3%
Russell 1000 Value Index	15.3%	9.3%	6.3%	3.3%
Pzena Focused Value†	20.0%	10.4%	8.5%	3.5%

Source: FTSE Russell, S&P Global, Pzena analysis

*Based on the standard deviation of their relative holding periods assembled on a monthly basis. †Based on gross performance of our Pzena Focused Value Composite; past performance is not indicative of future results.

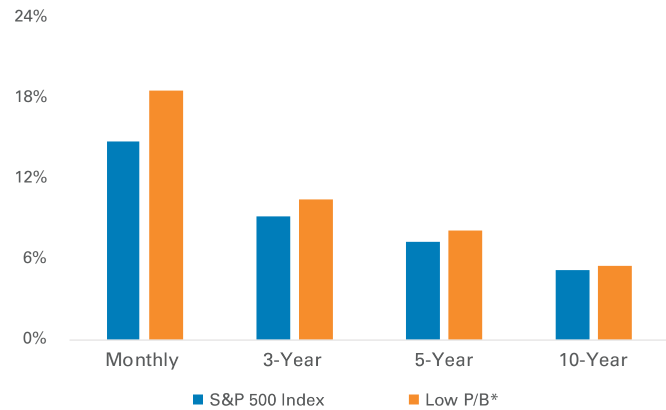
Not only does the stability of longer-term returns become apparent, but the short-term volatility disadvantage of a deep-value strategy disappears. In fact, at longer holding periods, the return profile of value and our deep-value strategy is less volatile than the return profile of the S&P 500. And that is with a 30-40 stock portfolio, not a highly diversified one like the market indices.

Perhaps short-term volatility is a poor measure of long-term risk and instead is more a measure of investment opportunity rather than risk. Perhaps short-term fluctuations cancel each other out over longer periods. Skilled deep-value investors aim to take advantage of individual stock price volatility by acquiring companies at low prices without taking on more risk. Thus, we can conclude that the real risk is paying too much for our investments. If we overpay for a portfolio of companies, not only would we expect the returns to be lower, but the stability of those returns would also be reduced.

We see the same phenomenon over longer periods using an entirely different data set to represent deep value going back to 1960. Looking at low price-to-book[5] stocks as a proxy for deep value, we see that, while volatility is higher on a monthly basis, it converges with volatility of the S&P 500, demonstrating more stability as the investment horizon increases. This point is illustrated in the figure below.

[5]The cheapest quintile of stocks on a price-to-book basis of the 1,000 largest US listed companies.

Figure 3: Volatility Converges over Longer Time Periods



*Low P/B refers to the cheapest quintile of stocks based on the price-to-book value of the largest 1,000 listed companies in the US. Past performance is not indicative of future results.

The conclusion is clear: Higher short-term volatility in the value style provides the opportunity for a skilled value investor to exploit or lock-in lower purchase prices, all with the aim of reducing risk.

RETURNS

While investors typically use short-term metrics for evaluating risk, they almost always use long-term metrics for evaluating returns. And the metric of choice almost always ends with a recent data point. So, even when we look at a 10-year record, that record is highly endpoint (and beginning-point) biased. So, what if we removed endpoint dependency?

Consider the differences in the Pzena Focused Value Strategy.

Figure 4: Total Annualized Return

Jan 1996 – Jun 2020*, †

	S&P 500 Index	Russell 1000 Value Index	Pzena Focused Value
Best 10-Year Period	16.7%	15.4%	17.1%
Worst 10-Year Period	-3.4%	-1.2%	3.4%
Most Recent 10-Year Period	14.0%	10.4%	8.3%
Average 10-Year Period	6.5%	6.9%	8.5%

*The best 10-year period was the period ended February 2019. The worst 10-year period ended February 2009. †Based on gross performance of the Pzena Focused Value Composite; data from 1/1/1996 – 6/30/2020. Past performance is not indicative of future results.

So, when we look at the data, we observe the following:

- Our best 10-year results are better than those of the S&P 500 and the Russell 1000 Value indices.
- Our worst 10-year results are better than those of the S&P 500 and the Russell 1000 Value indices.
- Our average 10-year results are better than the S&P 500 and Russell 1000 Value indices.
- But our most recent 10-year period is far worse than both indices even though our best 10-year period was only one year ago.

So, what's the best way to measure performance?

RISK AND RETURN

Consider Figure 5, which calculates a Sharpe-type ratio,[6] a simple comparison of risk versus return. But what proxy should we use for risk, and what should we use for return? In the first table, we use the long-term average 10-year return and divide it by the standard deviation of historical 10-year returns. In the second table, we use the trailing 10-year return and divide it by the monthly volatility.

The results are startlingly different. Looking at long-term metrics, our risk-adjusted return compares favorably to the S&P 500, whereas using short-term risk metrics look quite the opposite.

Compounding the problem for investors is that the most recent 10-year period has been the worst period of underperformance in our history coinciding with the worst 10-year underperformance for value in nearly fifty years.

CONCLUSION

Fifteen months ago, our Focused Value strategy posted the best 10-year performance record in its history, and — after last month's unprecedented market volatility — it posted close to its worst. Which one actually represents our "true" investment skill after 25 years of deep-value investing?

We suggest that the average 10-year return strikes a balance and presents the best representation of investor experience. But how risky are those returns? The Sharpe ratio would compare these 10-year figures with the standard deviation of monthly returns, but mismatching a long-term return horizon with short-term volatility seems odd to us. We believe looking at the standard deviation of 10-year returns is a more appropriate measure of risk.

Figure 5a: Long-Term Risk-Return Metrics

	S&P 500 Index	Russell 1000 Value Index*	Pzena Focused Value*
Return	6.5%	6.9%	8.5%
Volatility	4.3%	3.3%	3.5%
Sharpe-type ratio	1.5	2.1	2.4

*Based on S&P 500 Index, Russell 1000 Value Index, and Pzena Focused Value strategy. †Based on gross performance of the Pzena Focused Value Composite; past performance is not indicative of future results.

Figure 5b: Short Term Risk-Return Metrics

	S&P 500 Index	Russell 1000 Value Index*	Pzena Focused Value*
Return	14.0%	10.4%	8.3%
Volatility	15.2%	15.3%	20.0%
Sharpe-type ratio	0.9	0.7	0.4

[6] Unlike the conventional Sharpe ratio, this formula is simply a 10-year return divided by the standard deviation of the historical 10-year returns.

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