

The Q3 Risk Gauge



Introducing the Q3 Risk Gauge

While the existence of risk in the investment realm is well understood, the lack of a single, coherent, measure of such risk leads to confusion and misunderstanding of how exactly investors should interpret the appropriateness of a portfolio for their needs. Q3 has decided to create its own risk measure to be used to help differentiate portfolios and alleviate any misconceptions regarding the risk of a portfolio.

The Q3 Risk Gauge was created to address each of the limitations cited above in the more commonly used risk measures. At the same time, we wanted an indicator that was simple, robust, transparent and intuitive.

The formula is as follows:

$$\text{Q3 Risk} = \text{Standard Deviation} + \text{Drawdown} + (2 \text{ times Downside Deviation})$$

A couple of things to note: We emphasize *downside* risk (downside deviation is the standard deviation of *losing* periods only) as opposed to *total* risk. The reasoning behind this is explained below. When interpreting the score, note that the “number” is best used when comparing various strategies or combinations of strategies, and like most risk measures, the lower the result the lower the risk. Lastly keep in mind that the gauge is a *relative* measure of risk, and if a strategy is in the “red” that is not necessarily “bad” or “overly risky”, it just provides you with a basis for the risk you can expect going forward.

Q3 Risk Gauge Takeaways

When running our Sample Portfolios, the Risk Score may seem lower than expected. For example, choosing the “Diversified Growth” portfolio, returns a score that is more indicative of a moderate investment. This reflects two powerful and beneficial investment forces: the power of diversification (the portfolio consists of six strategies), and non-correlation (the strategies are not highly correlated to one another).

Currently the Q3 Risk Gauge is measured against the Vanguard Total Bond Index (VBMFX) and the Vanguard S&P 500 Index (VFINX). We are in the planning stages to allow the user to select multiple indexes and/or well-known mutual funds to compare against and see their Q3 Risk Score. You will be able score a portfolio using the Q3 methodology enabling you to better communicate to your clients the effectiveness of active management and risk controls.

The Misinterpretation of Investment Risk

Too often investment professionals focus on investment return, and pay little heed to investment risk. There are several reasonable explanations for this including: sensationalized headlines (“Dow hits all-time high!”, “Dow 20,000!”, “8-straight winning sessions”), lack of client expectations (when was the last time you were asked “How is the *risk* of my investment doing?”), and just plain human nature (you can’t retire on “risk”.)

Perhaps one of the reasons we tend to downplay risk is that there are so many ways of expressing it, and they all tell a different story. Perhaps the most familiar risk measures are beta, drawdown and standard deviation. Here are some of the most common misinterpretations regarding these measures:

Beta

“A lower beta is preferable to a higher beta”, “This investment has a lower beta than the S&P500, so it is less risky”

Beta is a measure of risk where a higher value indicates more risk. The key with beta, though, is the benchmark chosen. When measuring equity-based investments, the S&P 500 is the most common benchmark. As such, beta indicates a *relative* measure of risk, or more specifically, *equity-based* risk.

For example, a beta of 1.0 implies an investment with similar risk to that of the S&P 500. A higher beta, often seen in an equity sector, would indicate more risk than the S&P 500. Where many people get into trouble with beta, is mistaking low beta for low *equity* risk. GLD, the gold-based ETF, has a beta of 0.07. A low beta indeed, but gold is certainly not a low-risk investment, so why the low beta? Benchmarking a gold fund to an equity index (S&P 500) is comparing apples to oranges, so the result will have little meaningful value. Gold may have low *equity* (relative) risk, but it certainly has high *overall* (absolute) risk. This same misapplication may be applied to tactical strategies. A tactical strategy might invest in long equities one day, short equities another, and cash at other times. An S&P-based beta would be a poor risk measure for this strategy.

Drawdown

“Any investment with a drawdown of over 20% is too risky”, “The drawdown of an investment is the most you can expect to lose”, “A higher drawdown is always worse than a lower drawdown”

While drawdown intuitively is easier to understand than beta, it too has limitations. For one, drawdown measures a single moment in time. Consider an investment with a single monthly drawdown of 20%, but then snaps back to breakeven after two months. Is that any worse than one that loses 10% but takes over a year to recover? Also, the historical drawdown in no way guarantees that future losses will not exceed that level, so it should not be interpreted as a “worse-case” scenario.

Standard Deviation

“I can expect my return to be +/- the standard deviation in any given year”, “A higher standard deviation is always worse than a lower standard deviation”

Many assume a higher standard deviation is “bad”, because more risk is being taken. Well, yes and no. More volatility is being experienced, but upside volatility is treated the same as downside volatility. Clients will not complain during a 10% up month, but a loss of 10%, will not sit well with many. So while standard deviation does give a good sense of volatility (up and down), it is limited in that not only does it treat them both the same, but it also fails to account for extreme market conditions such as 1987, 2000-2002 and 2008.