

# 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 created its own risk measure to help assess portfolio risk and alleviate any misconceptions regarding the true risk of a portfolio.

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 reasons behind this are 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 may consist of six strategies), and non-correlation (the strategies are not highly correlated to one another).

By default, the Q3 Risk Gauge is measured against the Vanguard Total Bond Index (VBMFX) and the Vanguard S&P 500 Index (VFINDX). Using our Strategy Engine you can also compare well-known mutual funds and see their Q3 Risk Score. You are able to score a client’s current portfolio using the Q3 methodology allowing 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 25,000!”, “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”).

## Q3 Risk Gauge



	Q3 Risk Score
Vanguard Total Bond (VBMFX)	7.5
EA Sector - Mod	44.6
Vanguard S&P 500 Fund (VFINDX)	88.5

The Q3 Risk Gauge is a proprietary measure which incorporates downside risk, volatility and drawdown of an investment.



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 with clarification:

## Beta

*“A lower beta is preferable to a higher beta.” “This investment has a lower beta than the S&P 500, 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.

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.

