

Risk Parity, Fear and the August 2015 Market Downturn

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Fear of loss has driven market declines since securities markets were formed. But the market drawdown in August came as a surprise to most investors. Like many sell-offs, the catalyst (in this case, the devaluation of the Chinese currency) seemed insufficient for the violence of the response. So, it is not surprising that many are looking for a non-fundamental reason for the market drop. It could not be something as simple as investor fear, after all, feeding on itself. We are all too sophisticated for that. So, much like the Crash of 1987, computer-driven trading programs are being blamed. Computers, after all, give an automated response that has no basis in value and keep coming at you like a financial Terminator. Not surprisingly, algorithmic trading and trend-following strategies have been singled out since such trading has been well documented as causing “flash crashes” in the past. But there have also been a number of analysts who blame “risk parity” for the downturn, speculating that an increase in stock market volatility “forces” risk parity strategies to de-risk by selling stocks and buying bonds. Their contention is that this forced action makes risk parity a “crowded trade.”

These statements assume that risk parity or risk allocation managers all measure risk using the same short-term measures. They also assume that risk parity is an automated, soulless strategy where a manager has no discretion. In fact, there are many different risk parity methodologies; and while it is possible that some styles of risk parity could exaggerate market movements, there are others which would do the opposite. So, rather than look at risk parity as a generic strategy, we should look at the different types of risk parity before making broad, simplistic statements.

We can categorize risk parity styles using three diverse ingredients: (1) the factors used to define risk, (2) the type of the risk model, and (3) how dynamic the allocation process is. Using these three descriptors, we can illustrate four different styles of risk parity.

Style 1 is a static risk parity portfolio with a “set it and leave it” approach using a long-term measure of volatility as the risk factor, a measure that changes slowly over the market cycle. This static approach would not sell into a market decline, but would likely buy to rebalance back to the static weights. This type of approach could

	Basic Static STYLE 1	Basic Dynamic STYLE 2	Macro Static STYLE 3	ESSENTIAL BETA Macro Dynamic STYLE 4
Risk Factors	Volatility	Volatility	Macro	Macro and Sentiment
Risk Model	Long Term Historical	Short Term Historical	Scenarios	Scenarios
Allocations	Static	Dynamic Reactive	Static	Dynamic Anticipatory

Commodities trading involves substantial risk of loss.

Past or simulated performance is no guarantee of future results. Potential for profit is accompanied by possibility of loss.



have a tactical overlay, but that would be separate from the risk parity methodology itself.

Style 2 also uses volatility as its primary risk factor, but uses a short-term horizon, typically six months or less, often in combination with a longer-term measure of volatility. This type of approach is dynamic and reactive; therefore, a Style 2 risk parity manager could sell into a market decline in order to de-risk a portfolio.

Style 3 defines risk as macro uncertainty, where risk is dependent upon a macro scenario. However, the final allocation is static because Style 3 equally allocates risk among multiple scenarios. Style 3 recognizes that the macro environment influences risk, but does not attempt to anticipate when those scenarios are unfolding. So, it is another “set it and leave it” type of portfolio that uses long-term volatility to allocate risk. This risk parity portfolio would not sell into a market decline but would likely buy to rebalance back to targets. Again, there may be a tactical overlay, but that would be separate from risk parity.

Style 4, similar to Style 3, assumes that risk is defined by the macro cycle, but anticipates changes in the regimes. Such an approach would not necessarily react to a short-term change in risk. Instead, certain criteria need to be met in order to define the current uncertainty regime. When the regime changes, the portfolio moves to asset weights consistent with that macro outlook. Each scenario lasts for years, so the risk is also a long-term measure, though it does change for each scenario. This style is also unlikely to sell due to short-term changes in volatility. Needless to say, Essential Beta (EB) is an example of Style 4. EB uses our proprietary Market Risk Index (MRI) to determine the current allocation based upon five target portfolios. In addition, EB uses options instruments to directly hedge equity tail risk. In EB, the portfolio manager can also use some discretion. Trading for Essential Beta is not automated.

Of the four styles, only Style 2 has a tendency to de-risk when market volatility increases in the near term. Admittedly, Style 2 represents

a significant portion of risk parity assets under management, but it is not the only flavor of risk parity in the marketplace. In addition, it is not clear that a Style 2 manager would be “forced” to trade since even Style 2 managers are not tied to a benchmark. It is usually a benchmark that requires forced trading in order to reduce tracking error. So, an amount of discretion would likely be involved with timing the trades.

We can also see that risk parity is not a “crowded trade” since risk parity is not a trading strategy. It is an asset allocation methodology where the definition of risk, as well as the horizon for measuring risk, changes with each manager. Interestingly, the accusations, blaming risk parity managers, are not substantiated with any evidence or name any specific managers. Just a generic “risk parity” is blamed. The accusers of risk parity are speculating, reaching for a reason to explain their own unpreparedness for the market downturn. Computer-driven trading is a perfect scape goat, and risk parity is, unfortunately, falling in that category because most people still fail to understand it.

And then there is the curious response of bonds to the sell-off. If risk parity managers were truly driving the stock market down by selling stocks and buying bonds, then there should have been a stronger bond market rally. But like the dog that did not bark in the night-time (from the Sherlock Holmes story), bonds had little reaction to the equity sell-off. Bonds were up modestly as a group in August and German bonds were actually down. The fact that the other side of the trade did not respond as expected is a serious flaw in the risk parity conspiracy theory.

For our part, there were no “de-risking trades” in August, and we did, in fact, do some buying, rebalancing back to the target weights. EB had already shifted from full low uncertainty weights when the credit risk indicator turned negative in April. At that time, we reduced equities, credit and commodities and increased bond allocations. In July, we reduced commodity weights to their lowest level with the expectation that commodity risk would remain very high. On September 2,



the long-term equity sentiment indicator turned negative, and we again reduced weights more substantially to equities and credit and increased sovereign bonds. But, we sold into the equity rally of September 3, not into a downturn.

While EB's shift to higher uncertainty weights comes after the declines of August, history shows us that once we enter a high uncertainty regime the market usually stays there for an extended time, usually two to three years. While this time might be different, our research shows that it is more likely that we are in for an extended period of high volatility, more extreme "fat-tailed" events (both positive and negative), and a period where risk will not necessarily be rewarded with return. A bear market is not inevitable but more likely than it has been. All of this is a long-term outlook and not a reaction to recent events.

Finally, while it is possible that some risk parity managers sold into the decline, it is much more likely that any computerized impact came from algorithmic trading and trend following which have been documented to exaggerate market movements. However, it's more likely that it was plain, old-fashioned investor fear that drove the markets down, rather than a financial equivalent to the Terminator or HAL in 2001.



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