How Much DRS Is Enough?

Where the Defined Risk Strategy Fits

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How Much Is Enough?

Once one understands and accepts the Defined Risk Strategy (DRS), the next questions that are frequently asked are, "How much DRS should I add to my portfolio? How much is enough? How much is too much?"

There is no blanket, one-size-fits-all answer to that question. Like most things in life, the answer will be "It depends." What will it depend on?

- What are the goals and objectives of the investor?
- What other investments exist in the portfolio currently?
- Does the investor have a particular view of the market's direction?
- What is the risk tolerance of the investor?

These are just some of the factors that one should consider before investing in anything. Still, to help guide the discussion, it is worth exploring what impact adding the DRS has to an existing portfolio.

The DRS and the Traditional 60/40

We will start out by adding the DRS to a basic, plain vanilla portfolio that is 60% S&P 500 and 40% Barclays US Aggregate bond index. The 60/40 ratio is kept constant, and we will add 10% increments of the DRS.

July 1997 – Dec 2017	Ann. Return	Cuml. Return	Std Dev	Beta	Sharpe Ratio	Max DD	Pain Index	Pain Ratio
60% S&P 500/40% Barclays Agg	6.90%	292.87%	8.96%	0.59	0.54	-32.54%	4.24%	1.14
60/40 Portfolio w/ 10% Swan DRS Select Composite	7.12%	309.40%	8.55%	0.56	0.59	-30.12%	3.69%	1.37
60/40 Portfolio w/ 20% Swan DRS Select Composite	7.32%	325.85%	8.23%	0.53	0.64	-27.62%	3.21%	1.64
60/40 Portfolio w/ 30% Swan DRS Select Composite	7.52%	342.14%	8.01%	0.50	0.68	-25.05%	2.79%	1.96
60/40 Portfolio w/ 40% Swan DRS Select Composite	7.71%	358.23%	7.90%	0.48	0.72	-22.97%	2.48%	2.28
60/40 Portfolio w/ 50% Swan DRS Select Composite	7.89%	374.05%	7.89%	0.45	0.74	-21.16%	2.24%	2.61
60/40 Portfolio w/ 60% Swan DRS Select Composite	8.06%	389.54%	8.00%	0.42	0.75	-19.31%	2.03%	2.95
60/40 Portfolio w/ 70% Swan DRS Select Composite	8.22%	404.63%	8.21%	0.39	0.75	-17.42%	1.98%	3.12
60/40 Portfolio w/ 80% Swan DRS Select Composite	8.37%	419.26%	8.53%	0.36	0.74	-16.59%	2.00%	3.15
60/40 Portfolio w/ 90% Swan DRS Select Composite	8.51%	433.37%	8.93%	0.33	0.72	-17.58%	2.08%	3.11
Swan Defined Risk Strategy Select Composite (net)	8.64%	446.89%	9.40%	0.30	0.70	-18.56%	2.21%	2.99
S&P 500	7.54%	343.80%	14.90%	1.00	0.37	-50.95%	11.44%	0.48

Source: Zephyr StyleADVISOR. All S&P 500 data based on historical performance of the S&P Total Return Index. All historical performance of the Swan DRS Select Composite is net of fees. Prior performance is not a guarantee of future results.

The historical return of the DRS is higher than that of the 60/40 portfolio and the S&P 500, so obviously, any increase in DRS exposure will increase the overall return.

DRS Improves the Risk/Return Tradeoff

The focus of this exercise is on risk reduction or maximizing the return-risk trade-off. Risk, when measured by standard deviation, is minimized with a 50% allocation to the DRS. The Sharpe ratio, which is the most commonly used measure of risk/return trade-off, is maximized at around a 70% allocation to the DRS.

Both standard deviation and Sharpe ratio define risk in terms of volatility. There is another school of thought that suggests a better way to measure risk is in terms of capital preservation. Maximum drawdown, the pain index, and the pain ratio are all ways to quantify risk in terms of losses. With the DRS's emphasis on preventing large losses, it should come as no surprise that the best results for the capital preservation metrics have a DRS allocation in the 70%-80% range.

The DRS and Asset Allocation

Although the 60/40 is often used as shorthand for a balanced portfolio, few investors have portfolios consisting of just large cap U.S. stocks and investment-grade bonds. What if we had a portfolio that was better diversified across multiple asset classes and styles? In the next simulation, we add 10% increments to the following portfolio:

Asset Class	Index	Weight
U.S. Large Cap Stock	S&P 500	20%
U.S. Small Cap Stock	Russell 2000	10%
Foreign Developed Stock	MSCI EAFE	15%
Foreign Emerging Stock	MSCI Emerging	10%
Real Estate	FTSE Nareit All REITs	5%
Investment Grade Bonds	Barclays U.S. Aggregate	25%
High Yield Bonds	Barclays U.S. Corporate HY Bond	10%
Cash	Citigroup 3mo T-Bill	5%

This portfolio is still 60% equity and 40% fixed income, but it is much more diversified. As before, the relative weights within the "asset allocation portfolio" are kept constant as additional 10% increments of DRS are added. How does that change the results?

July 1997 – Dec 2017	Ann. Return	Cuml. Return	Std Dev	Beta	Sharpe Ratio	Max DD	Pain Index	Pain Ratio
Asset Allocation Portfolio	6.83%	287.50%	10.31%	0.64	0.46	-38.14%	4.34%	1.10
AA Portfolio w/ 10% Swan DRS Select Composite	7.06%	304.83%	9.77%	0.61	0.51	-35.33%	3.80%	1.32
AA Portfolio w/ 20% Swan DRS Select Composite	7.28%	322.05%	9.31%	0.57	0.56	-32.42%	3.31%	1.58
AA Portfolio w/ 30% Swan DRS Select Composite	7.48%	339.07%	8.94%	0.54	0.61	-29.39%	2.90%	1.87
AA Portfolio w/ 40% Swan DRS Select Composite	7.68%	355.84%	8.67%	0.50	0.65	-26.71%	2.58%	2.18
AA Portfolio w/ 50% Swan DRS Select Composite	7.87%	372.28%	8.51%	0.47	0.68	-24.34%	2.33%	2.49
AA Portfolio w/ 60% Swan DRS Select Composite	8.04%	388.30%	8.46%	0.43	0.71	-21.91%	2.19%	2.74
AA Portfolio w/ 70% Swan DRS Select Composite	8.21%	403.85%	8.53%	0.40	0.72	-19.42%	2.12%	2.91
AA Portfolio w/ 80% Swan DRS Select Composite	8.36%	418.85%	8.72%	0.37	0.72	-17.05%	2.09%	3.02
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The results are largely similar. Adding increments of DRS continues to reduce risk and improve the risk/return trade-off across the spectrum. By most of the measures above, the "optimal" allocation to the DRS is between 70% and 90%.

60/40 and Asset Allocation Not All That Different

There is a second, subtler point to be made from this analysis.

If we compare the simple 60/40 portfolio against the more broadly diversified "asset allocation" portfolio, we see very little difference in end results. To the equity portion, we added small cap stocks, foreign developed, emerging markets, and real estate. To the bond portion, we diversified into high yield bonds and cash. We went from two asset classes to eight, and yet at the end of the day there was little change in return or risk. If anything, the results from the better-diversified portfolio are slightly worse.

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This table perfectly illustrates the shortcomings of traditional asset allocation. Simply adding more asset classes does not remove systematic, market risk from the equation. The DRS was built on the premise that market risk must be hedged away since it cannot be diversified away.

Rational and Proven Strategy

We realize most investors are not going to scrap their existing portfolios and move 75% of their assets into the DRS, no matter how good the historical numbers look. However, I am reminded of the annual conversation I have with my physician.
At every check-up, she encourages me to eat more vegetables. She says every little bit helps: the more vegetables I eat, the better. If she had her way, she would probably have me on a 100% vegetarian diet. It's highly unlikely that I will ever get to that point, but compared to where I was ten years ago, I have worked an ever-increasing level of green stuff into my diet. The risk of a catastrophic event like a heart attack was simply too high if I did not make a "reallocation" to a healthier diet.

The analogy to investing is pretty straight-forward. There is a tremendous amount of downside risk in a standard stock-bond portfolio. With markets near all-time highs and yields near all-time lows, a major sell-off on either side of the stock-bond equation could be catastrophic. We believe that incorporating a "healthier" option like the Defined Risk Strategy into the plan is a rational, proven way to decrease the downside risk in a portfolio.

About the Author

Marc Odo, CFA®, CAIA®, CIPM®, CFP®, Client Portfolio Manager, is responsible for helping clients and prospects gain a detailed understanding of Swan's Defined Risk Strategy, including how it fits into an overall investment strategy. Formerly, Marc was the Director of Research for 11 years at Zephyr Associates.

Important Disclosures

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