

Addendum to “Risk Parity with Trend-Following”

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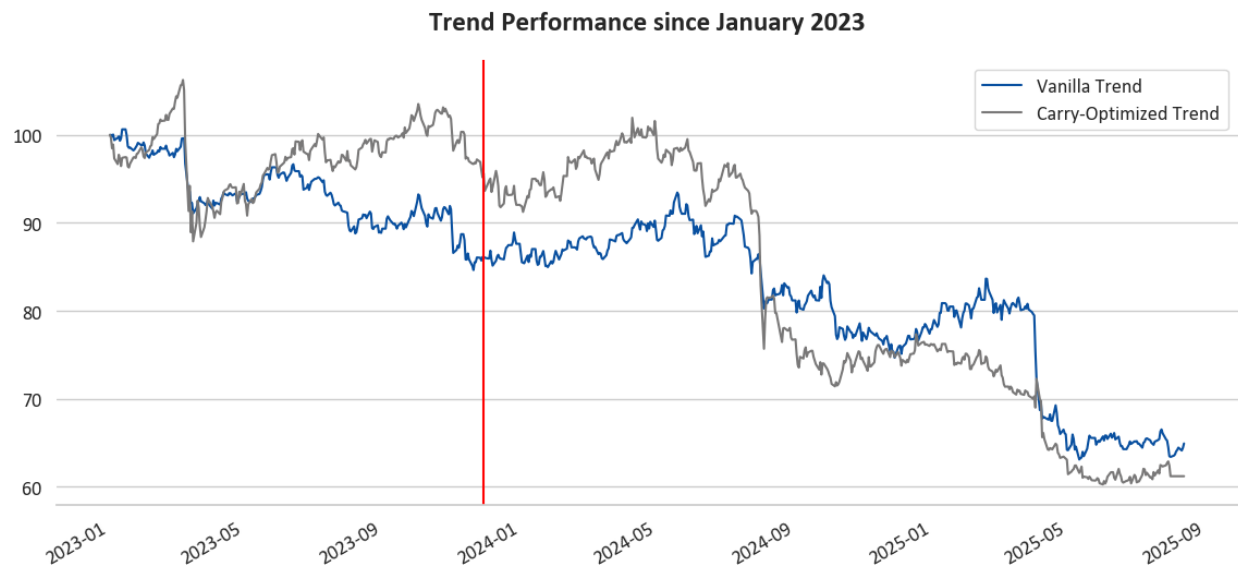
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Introduction

This addendum is a follow on to our previous paper “Risk-Parity with Trend Following” (accepted for publication in the Journal of Alternative Investments), which was published using data up through November of 2023 (the “data cutoff” date). Starting in mid-2024, trend strategies across the board experienced a large drawdown, illustrated below in Exhibit A1:



Source: Bloomberg, LongTail Alpha. Red line denotes data cutoff date of paper, which was 11/30/23

Exhibit A1: Trend returns between January 2023 and August 2025

Given this new data, we want to address which conclusions in the original paper may have changed if we include data through August 1st, 2025. To be sure, adding roughly two more years of data to the original data which spanned almost 25 years should not fundamentally change the broad conclusions regarding the inclusion of trend-following in risk-parity strategies, but we thought it would be useful for readers to see the results for themselves after an especially dismal period for trend following in 2025. Below we go section by section, following the ordering of the original paper.

Adding Trend-Following to Risk Parity

In this section of the original paper, we noted that adding vanilla trend to a stock and bond risk parity program improved performance by over 1% annualized. This is no longer true if we include the data through August 1st, 2025, as the trend-following component underperformed. However, the long term CAGRs with and without trend-following are about the same despite this underperformance, as shown in Exhibit A2 below, indicating the “option-like” behavior of trend-following in the context of a stock and bond risk parity portfolio.

	Stocks + Bonds	Stocks + Bonds + Vanilla Trend
CAGR	8.76%	8.62%
CAGR @ 15% vol	8.12%	8.00%
Sharpe	0.58	0.57
Sortino	0.89	0.91
Skew	-0.77	-0.44
Kurtosis	8.39	3.58

Statistics are monthly. 01/01/1999 – 08/01/2025

Exhibit A2: Performance comparison after inclusion of Vanilla Trend in a stock and bond risk parity program

Replacing Bonds with Trend-Following

We noted that replacing bonds with trend-following would result in a 1.18% reduction in CAGR. That difference is still directionally correct but unsurprisingly has now increased to a 2.27% reduction in CAGR, as shown in Exhibit A3 below.

	Stocks + Bonds	Stocks + Vanilla Trend
CAGR	8.76%	6.49%
CAGR @ 15% vol	8.12%	5.89%
Sharpe	0.58	0.44
Sortino	0.89	0.69
Skew	-0.77	-0.50
Kurtosis	8.39	6.45

Statistics are monthly. 01/01/1999 – 08/01/2025

Exhibit A3: Performance comparison after replacing bonds with Vanilla Trend in a stock and bond risk parity program

Replacing Bonds with a Carry-Optimized Trend Program

Our conclusion then was that a carry-optimized program performs better than a vanilla trend program, since “a carry-optimized trend program spends significantly less time short bonds during this sample history, hence it generally has more positive duration, possibly making it a more attractive substitute for a long duration bond allocation compared with a simple trend-following strategy.” This is still the case, however the magnitude of the increase in performance has decreased. Previously the increase in CAGR was 2.12%, and now shows just 0.36%, as shown in Exhibit A4 below.

	Stocks + Bonds	Stocks + Optimized Trend
CAGR	8.76%	9.12%
CAGR @ 15% vol	8.12%	8.34%
Sharpe	0.58	0.59
Sortino	0.89	0.90
Skew	-0.77	-0.92
Kurtosis	8.39	10.19

Statistics are monthly. 01/01/1999 – 08/01/2025

Exhibit A4: Performance comparison after replacing bonds with Optimized Trend in a stock and bond risk parity program

Stocks, Bonds, plus a Carry-Optimized Trend Program

We noted that this “trio solution” of stocks, bonds, plus a carry-optimized trend program might be the best of all worlds. That is no longer the case, as returns decrease when adding an optimized trend program to a stock and bond risk parity program, shown in Exhibit A5 below. However, the reduction in CAGR despite this sharp underperformance in trend following still puts this mix just slightly (-0.23%) below the stock and bond portfolio, showing yet again the “option-like” characteristic that trend-following brings.

	Stocks + Bonds	Stocks + Bonds + Optimized Trend
CAGR	8.76%	8.53%
CAGR @ 15% vol	8.12%	7.94%
Sharpe	0.58	0.57
Sortino	0.89	0.88
Skew	-0.77	-0.84
Kurtosis	8.39	6.71

Statistics are monthly. 01/01/1999 – 08/01/2025

Exhibit A5: Performance comparison after inclusion of Optimized Trend in a stock and bond risk parity program

Stocks, Bonds, Commodities, plus a Vanilla Trend Program

We noted that adding commodities to a stock and bond risk parity program will decrease performance since commodities performed poorly between 1999 and 2023. However, we note: “That being said, the benefits to adding a trend-following strategy still hold. Adding a simple trend program to this stock, bond, and commodity risk-parity portfolio leads to greatly improved performance, not only in return, but also in risk-adjusted metrics like Sharpe and Sortino. We also see significant improvements in skew and kurtosis.” The improvements in return, Sharpe and Sortino are no longer true as shown in Exhibit A6 below, however there are still improvements to Skew and Kurtosis, again speaking to the “option-like” profile of trend-following.

	Stocks + Bonds + Commodities	Stocks + Bonds + Commodities + Vanilla Trend
CAGR	6.79%	6.55%
CAGR @ 15% vol	6.37%	6.16%
Sharpe	0.47	0.46
Sortino	0.73	0.73
Skew	-0.76	-0.47
Kurtosis	6.45	3.16

Statistics are monthly. 01/01/1999 – 08/01/2025

Exhibit A6: Performance comparison after inclusion of Vanilla Trend in a stock, bond and commodity risk parity program.

Stocks, Bonds, Commodities, plus a Carry-Optimized Trend Program

We noted that adding a carry filter to trend-following tends to make it more diversifying to commodities. Since commodities were mostly in contango during the previous data sample, a carry-filter trend program is generally only able to go short commodities. We note that: “We find during our sample period that the CSLAB15 Index had a slightly positive correlation with the Bloomberg Commodity Index, while the carry-filter trend program had a slightly negative correlation. So adding a carry-filter enabled trend program to a stock, bond, and commodity risk parity portfolio yields even greater performance benefits, at the cost of a slight walk-back in the improvements in skew and kurtosis that we see with simple trend.” This is still directionally correct, however the magnitude of the improvement is quite small as shown in Exhibit A7 below.

	Stocks + Bonds + Commodities	Stocks + Bonds + Commodities + Optimized Trend
CAGR	6.79%	6.98%
CAGR @ 15% vol	6.37%	6.57%
Sharpe	0.47	0.49
Sortino	0.73	0.75
Skew	-0.76	-0.76
Kurtosis	6.45	5.35

Statistics are monthly. 01/01/1999 – 08/01/2025

Exhibit A7: Performance comparison after inclusion of Optimized Trend in a stock, bond, and commodity risk parity program.

Additional Note on Diversification Benefits vs. Stocks:

One reason to add strategies like trend-following to a stock and bond portfolio is that such strategies can diversify the portfolio. This effect can be measured by looking at the various backtested combinations above and comparing returns with those of the S&P 500. In the table shown in Exhibit A8 below, we see that despite the underperformance of trend following in 2025, it still manages to reduce the correlation to the S&P 500 of a stock and bond risk parity portfolio. Further, in 2025 the optimized trend version of the stock, bond, and commodity portfolio had a lower correlation to the S&P 500 than it did for the 25 years from 1999 to 2023. This, of course, is just restating the fact that as stocks outperformed, trend happened to underperform in 2025. While one would want the trend component to perform all the time, it is some solace that the underperformance of trend in this event occurred when the stock market did well. In other words, diversification from trend-following worked as expected, and in the context of longer-term portfolio performance of the total portfolio, did what it was designed to do.

	Until Nov 2023	Until Aug 2025	Between Nov 2023 and Aug 2025	Change vs. pre Nov 2023 backtest
Stock + Bond	0.58	0.59	0.83	0.25
Stock + Vanilla Trend	0.65	0.66	0.77	0.12
Stock + Optimized Trend	0.68	0.67	0.62	-0.06
Stock + Bond + Vanilla Trend	0.48	0.49	0.67	0.19
Stock + Bond + Optimized Trend	0.5	0.49	0.46	-0.04
Stock + Bond + Commodity	0.52	0.53	0.71	0.19

Stock + Bond + Commodity + Vanilla Trend	0.46	0.47	0.62	0.16
Stock + Bond + Commodity + Optimized Trend	0.48	0.48	0.45	-0.03

Exhibit A8: Correlations between backtested risk parity programs and the S&P 500

Conclusion:

In conclusion, while trend-following's dismal performance over the most recent period might lead its popularity to wane in the short-term, we believe that the robustness it adds over longer time frames is sufficient reason for it to be included as a core strategic allocation within the diversifying bucket of investment portfolios. Over the very long history of trend-following, short-term underperformance is related to the flows of excess capital following recent outperformance, as the strategy becomes more crowded. However, there is evidence that as the strategy becomes less crowded, performance tends to return. We might again be at such an important juncture.