On the performance of volatility-managed portfolios

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1. What are the research questions?

- This paper assesses the value of volatility managed portfolios in real-time implementation.

2. Why are the research questions interesting?

- This paper critically examines whether the much-celebrated in-sample benefits of volatility-managed portfolios can actually be realized in practice, using a comprehensive and realistic framework that reveals significant limitations and implementation risks.

3. What is the paper's contribution?

- Existing:
    - They show that volatility-scaled strategies generate consistently positive alphas, leading to higher Sharpe ratios and substantial utility gains.
    - They find mixed evidence when directly comparing the performance of volatility-managed portfolios and original portfolios.
- Expandation:
    - This paper finds no evidence that volatility-managed portfolios outperform in Sharpe ratio.
    - This paper confirms that Moreira and Muir's (2017) positive spanning alphas for volatility-managed portfolios persist in their extended sample.
    - This paper examines why the in-sample alphas for volatility-managed portfolios do not readily translate into out-of-sample gains for investors.

4. What hypotheses are tested in the paper?

- The poor out-of-sample performance of volatility-managed portfolios results from structural instability.

5. Comment on the appropriateness of the sample selection procedures

- The sample selection is appropriate and well-justified, offering a broad, high-quality, and realistic basis for testing the real-time effectiveness of volatility-managed strategies.

6. Comment on the appropriateness of variable definition and measurement

- Instead of standard value weighting, the capped value-weighted method proposed by Jensen et al. (2023) can reduce the influence of large firms and better balance the impact of small and large stocks on portfolio returns.

7. Comment on the appropriateness of the model specification

- The evaluation framework is based on mean-variance utility, which may not fully capture real-world investor behavior, especially under non-normal return distributions.

8. What difficulties arise in drawing inferences from the empirical work?

- The paper uses mean-variance measures like Sharpe ratio and CER, but asset returns are not normally distributed. This may lead to misleading performance evaluation, especially under skewness and fat tails.

9. Describe at least one and feasible extension of this research?

- Apply machine learning algorithms to dynamically predict conditional volatility and expected returns, then use these predictions to guide adaptive volatility-managed portfolio construction.
- Improve the performance of VMPs by using factor momentum in the numerator and downside volatility or skewness in the denominator.

10. What links exist among these papers?

- The three papers build on each other. Cederburg et al. (2020) question the out-of-sample performance of VMPs. Barroso and Detzel (2021) show that VMPs often fail after accounting for trading costs. DeMiguel et al. (2024) respond to these concerns by using a multi-factor approach and cost-aware portfolio design. Their works show the evolution of VMPs.