

**PORTFOLIO INSURANCE WITH A DYNAMIC RISK MULTIPLIER BASED ON
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CHINA**ABSTRACT**

In this paper we extend the Constant Proportion Portfolio Insurance Strategy (CPPI) and the Time-Invariant Portfolio Protection Strategy (TIPP) to dynamic CPPI (D-CPPI) and dynamic TIPP (D-TIPP) by using a novel dynamic risk multiplier based on the price fluctuation of the risky asset. The multiplier m is adjusted by the movement of the risky asset price, that is, when the risky asset price rises, the dynamic multiplier m rises along with it; when the risky asset price falls, the dynamic multiplier m also falls. Accordingly the dynamic strategies would better allow potential benefits in rising markets and limits downside risk in falling markets. By using the real data of Chinese stock market, we evaluate the performances of the D-CPPI and D-TIPP strategy under bull, bear and deer markets with different parameters and simultaneously compare the simulation results with traditional CPPI and TIPP strategy. The empirical results show that the performances of D-CPPI and D-TIPP strategy significantly exceed the traditional CPPI and TIPP strategy under most circumstances. This paper extends the traditional portfolio strategy with the dynamic risk multiplier, which provides solid foundations for further research of domestic portfolio insurance in emerging market. It contribute to both academic research and practical investment by laying theoretical supports for hedge using proper financial derivatives in Chinese market and technical supports for investors using portfolio insurance to avoid market risks.

Keywords: Dynamic multiplier; portfolio insurance; CPPI; TIPP.