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First developed by Markowitz (1952), the mean-variance framework is the most widespread theoretical approximation to the portfolio problem. Nevertheless, successful application in the investment community has been limited. Assumptions such as normality of returns and a static correlation matrix could partially account for this. To overcome some of the limitations of the mean-variance framework, mainly the choice of the risk metric and the inconvenience of using an estimated correlation matrix typical of tranquil or euphoria periods, this paper proposes an alternative risk measure: the maximum drawdown (MDD), and combines it with a wealth creation measure to define a new portfolio optimization space. Like other market practitioners measures, MDD lacks of a complete and solid theoretical foundation. In an effort to contribute to its theoretical foundation, this paper uses common sense and financial intuition to introduce such measure, followed by a review of its technical advantages and coherence for risk management. Finally, an application of a MDD risk metric based portfolio optimization model is presented. The main findings indicate this proposal may effectively help overcome some of the traditional mean-variance shortcomings and provide some useful tools for portfolio optimization in practice. For long-term performance driven portfolios, such as pension funds, this approach may yield interesting results because it focuses on wealth creation over the long run.

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