

1092-00-14

Ming Fang* (mfang@nsu.edu), Department of Mathematics, Norfolk State University, Norfolk, VA 23504, and **Cherng-Tiao Perng**. *re-indexing problem of Leveraged ETFs*.

Leveraged/inverse exchange-traded funds (ETFs) seek to deliver the multiples/opposite of the performance of the index or benchmark they track. Leveraged and inverse ETFs typically are designed to achieve their stated performance objectives on a daily basis. Many real-life and hypothetical examples have been given to show that performance of these ETFs over a period longer than one day can differ significantly from their stated daily performance objectives. In this paper, we are attempting to establish a mathematical framework for this highly sophisticated financial engineering product and give mathematically rigorous treatments of some well-known observations. (Received May 14, 2013)