Ho-Chun Herbert Chang* (herbert.hc.chang@dartmouth.edu), Hinman 3853, Dartmouth College, Hanover, NH 03755. Selective Hedging Against Regret: The Amnesiac Lookback Option.

Everyone has had the experience and regret of not buying something at the right time. The Lookback Option, created in the late 20th century for volatile commodities like gold, is a financial instrument that hedges against this regret. The buyer pays a premium for the Lookback Call (Put) Option for the right to buy an underlying asset at its minimum (or sell at maximum) within a specified time period. This allows the holder to effectively buy or sell the underlying at its optimal price. However, as the condition of looking at all the previous prices is so strong, the premium of Lookback Options is very high and prevents the option from being more extensively traded. This talk presents the Amnesiac Lookback Option, which reduces the premium of a discrete Lookback Option by restricting the periods that can be looked back on. A fair price is shown using Monte Carlo simulations and compared with an adjusted binomial valuation. The Amnesiac Lookback's use is then extended to cryotocurrencies, volatile commodities enabled by blockchain technology, which have recently been cleared for options and other financial derivatives trading. We conclude by showing that the region between 0% to 20% of the total periods provide regions for investors to precisely balance their risk and regret. (Received September 22, 2017)