

TITLE: On the Application of Esscher Transform to the Regime Switching Model

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ABSTRACT: RSLN2 model is considered to be a better representation for stock market than single regime models. We can show that hedging under RSLN2 displays a better results with less hedging errors compared to Black-Scholes approach. Esscher transform is a well known tool for financial pricing in incomplete market. We extend the Esscher transform into pricing and hedging under RSLN2 models. This approach creates a better hedge strategy than RSLN2 model. The results are in agreement for both simulated data and S&P 500 data. We will discuss this approach in more details.