1120-91-11 Runhuan Feng^{*}, Department of Mathematics, 1409 W Green St., Urbana, IL 61801, and Hans W Volkmer, 3200 N Cramer St, Milwaukee, WI 53211. Conditional Asian options.

Conditional Asian options are recent market innovations, which offer cheaper and long-dated alternatives to regular Asian options. In contrast with payoffs from regular Asian options which are based on average asset prices, the payoffs from conditional Asian options are determined only by average prices above certain threshold. Due to the limited inclusion of prices, conditional Asian options further reduce the volatility in the payoffs than their regular counterparts and have been promoted in the market as viable hedging and risk management instruments for equity-linked life insurance products. There has been no previous academic literature on this subject and practitioners have only been known to price these products by simulations. We propose the first analytical approach to computing prices and deltas of conditional Asian options in comparison with regular Asian options. In the numerical examples, we put to the test some cost-benefit claims by practitioners. As a by-product, the work also presents some distributional properties of the occupation time and the time-integral of geometric Brownian motion during the occupation time. (Received January 04, 2016)