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*Esscher Transforms and Consumption-Based Models*

The Esscher transform is an important tool in actuarial science. Since the pioneering work of Gerber and Shiu (1994), this method has been used extensively for derivative valuation. However, the relationship between the asset pricing model based on the Esscher transform and some fundamental equilibrium-based asset pricing models, such as consumption-based models, has so far not been well-explored. In this paper we attempt to bridge the gap between consumption based models and asset pricing models based on Esscher-type transformations in a discrete-time setting. Based on certain assumptions for the distributions of asset returns, changes in aggregate consumptions and returns on the market portfolio, we construct martingale measures that are consistent with Esscher-type transformations. Relationships between the market price of risk and the risk preference parameters are derived for some cases.