

**A COMPARISON OF ALTERNATIVE OPTION PRICING MODELS:
SYSTEMATIC VS MIXED SYSTEMATIC/DIVERSIFIABLE JUMP DIFFUSION**

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This study proposes a new alternative option pricing model that includes two independent jump diffusions. Unlike the existing single-jump model, a two-jump model can be constructed using theory that simultaneously allows for diversifiable as well as systematic jump risk. We compare three option pricing models: a two-jump, a single-jump and a no jump stochastic volatility model, respectively. We find that, as a whole, jump models perform better than no-jump model in terms of pricing error, hedging performance and dynamic trading profits. However, within the jump models, the two-jump model and single-jump model vary in their relative performance depending on the test criteria. Our findings support the inclusion of jump diffusion in option pricing and in some cases the distinction between systematic and diversifiable jump plays a role in pricing, hedging and dynamic trading with options.