

股票市场微观结构噪声、跳跃、流动性关系分析

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Analysis on the Relationship among Microstructure Noise, Jump and Liquidity in Stock Market

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摘要 在金融高频数据研究领域,学者们关于不同类型风险的内在关系并未深入探讨。从高频数据角度,本文首次对市场微观结构噪声、波动率跳跃之间的关系进行了理论分析。估计出微观结构噪声方差,通过构造新的跳跃分离方法,分离出波动中跳跃成分,给出流动性度量指标,并以上证综合指数为例,对微观结构噪声、跳跃、流动性三者关系进行实证分析。结果表明噪声越大指数发生跳跃的可能性越高;流动性越强指数的噪声越小,并且发生跳跃的可能性越低,并对此现象给出相应的解释。

关键词: 微观结构噪声 跳跃 流动性

Abstract: In the field of research about high-frequency data, the scholars pay little attention to the internal relations among different risks. So this article analyses the relationship between microstructure noise and volatility jump in theory for the first time by the high-frequency data. The noise variance is estimated, the volatility jump is separated by constructing the new jump test and the liquidity index is given. The empirical analyses are carried out among microstructure noise jump and liquidity with the data of shanghai composite index. From the empirical analysis, we find the index with higher noise is likely to have volatility jump. The more liquidity index based on financial characteristics has lower noise and is unlikely to have volatility jump. and the corresponding explanations are given.

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