

## 基于ACD模型的中国期货市场波动性

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## Volatility of Chinese futures market based on ACD model

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- 摘要
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**摘要** 通过用久期来调整收益率, 把非等距数据等距化, 构建ACD-GARCH模型来反映高频波动特征. 并添加微观结构变量, 构建了ACD-GARCH-M模型, 用以分析久期、交易量与收益率和波动率的关系. 结果表明: 较长的久期是由于信息缺乏所致, 久期对收益率的影响不显著, 但久期和价格的波动性负相关. 交易量和价格的波动性正相关. 在加入了微观解释变量的ACD-GARCH-M模型中, GARCH效应大大减弱了, 说明ACD-GARCH-M模型能较好地反映高频波动聚集性的本质, 久期、交易量是产生波动聚集的原因.

**关键词:** 高频数据 久期 日内效应 ACD-GARCH模型

**Abstract:** Before the building of ACD-GARCH model to research the high frequency volatility, it adjusted the yield by duration to equal the distance of data. It added micro-structural variables to build the ACD-GARCH-M models and analyze the relationship among duration, volume, yield and volatility. The results reveal that long duration results from the lack of information, and there are insignificant impacts on yield from duration; negative relationship between duration and price volatility; and positive relationship between volume and price volatility. ACD-GARCH-M model which contains explanatory variables demonstrate less GARCH effects implies that it could describe the volatility clustering of high frequency data better, and duration and volume can explain the volatility clustering to a large extent.

**Key words:** high frequency data duration intraday effect ACD-GARCH model

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