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基于时差相关多变量模型的金融危机前后国际原油价格影响因素分析

张文[1], 王珏[2], 部慧[3], 汪寿阳[2]
1. 中国科学院 虚拟经济与数据科学研究中心, 北京 100190;
2. 中国科学院 数学与系统科学研究院, 北京 100190;
3. 北京航空航天大学 经济管理学院, 北京 100191

Multivariable model based on cross-correlogram for analyzing the change of relationship between factors and crude oil price during financial crisis

ZHANG Wen[1], WANG Jue[2], BU Hui[3], WANG Shou-yang[2]
1. Research Center on Fictitious Economy and Data Science, Chinese Academy of Sciences, Beijing 100190, China;
2. Academy of Mathematics and Systems Science, Chinese Academy of Sciences, Beijing 100190, China;
3. School of Economics and Management, Beihang University, Beijing 100191, China

摘要 为研究各因素与国际原油价格之间相互影响的程度和时差关系,提出了基于时差相关多变量模型的分析 框架.根据该框架, 在确定影响因素和模型变量后,对各因素与油价间的时差相关关系进行了分析,以 此作为确定和调整模型中变量滞后阶数的依据,结合变量系数是否显著和模型调整R^2是否提高的判 断准则,对金融危机前后共七组样本构建了多元回归模型.研究结果发现:各因素与油价的相互作用并不都 是在当期完成的;金融危机爆发后,各因素与油价的关系均发生了不同程度的变化,且油价有向基本面回归的趋势.

关键词: 原油价格 金融危机 影响因素 时差相关 多变量模型

Abstract: A multivariable model based on cross-correlogram is proposed to study the effect of influencing factors on crude oil price. Following the selection of factors and variables, the lead-lag relationship between factors and oil price is firstly analyzed to decide and adjust the lag order of independent variables. Then multivariable regression models are set up to analyze the effect of influencing factors on crude oil price during financial crisis. It proves that not all factors change the oil price in the current period. The relationship between factors and oil price does change after financial crisis to various extent.

Key words: crude oil price financial crisis influencing factors cross-correlogram analysis multivariable regression model

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