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## 基于贝叶斯机制转换协整模型的石油——股市非对称效应研究

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## Oil Price Shocks and China's Actual Economic Fluctuations—An RBC Model Analysis

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**摘要** 传统门限机制转换模型存在参数估计最优化计算复杂以及参数不可识别的问题,本文构建双机制的贝叶斯门限机制转换协整模型研究国际石油价格与股市之间的非线性动态关系。利用八个亚太股票市场和国际石油价格的数据,结合MCMC抽样算法进行贝叶斯分析,着重考察国际石油—股市之间的非对称效应,结果发现国际石油价格与韩国、马来西亚股市之间具有门限机制转换的非线性协整关系,表明国际石油价格与韩国、马来西亚股市存在非对称效应,而国际石油价格与日本、澳大利亚、印度、印度尼西亚、台湾和新加坡股市之间没有非对称效应。进一步,格兰杰因果检验结果发现,国际石油价格与日本、澳大利亚、韩国、印度、马来西亚、印度尼西亚和新加坡股票价格指数之间存在双向格兰杰因果关系,而与台湾股票价格指数之间没有明显的格兰杰因果关系。

**关键词:** 机制转换协整 非对称效应 贝叶斯分析 石油 股市

**Abstract:** The nonlinear dynamic relationship between crude oil price and stock markets for the selected eight Asia-Pacific economies from 1997/07/01 to 2013/07/01 is investigated. In the traditional threshold regime switching models framework, the optimization is complicated in the procedure of parameter estimation and the identification of unknown nuisance parameters is more difficult. Therefore, a Bayesian threshold regime switching cointegration approach is implemented instead in this study. Based on Bayesian MCMC algorithm, It is found that there is threshold regime switching cointegrating relationship between crude oil and Korea stock market, and between crude oil and Malaysia stock market. The results suggest that there exist asymmetric adjustments in oil-Korea stock market nexus and oil-Malaysia stock market nexus. On the other hand, there are no asymmetric adjustments between oil and Japan, Australia, South Korea, India, Indonesia and Singapore stock markets. The regime switching cointegration analysis could provide a different view to the relationship between crude oil price and Asia-Pacific stock markets.

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















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- [1] Hamilton J D. Oil and the macroeconomy since World War II[J]. The Journal of Political Economy, 1983, 9(12): 228-248.
- [2] Jones C M, Kaul G. Oil and the stock markets[J]. Journal of Finance, 1996, 51(2): 463-491. 
- [3] Sadorsky P. Oil price shocks and stock market activity[J]. Energy Economics, 1999, 21(99): 449-469. 
- [4] Ciner C. Energy shocks and financial markets: Nonlinear linkages[J]. Studies in Nonlinear Dynamics and Econometrics, 2001, 5(3): 203-212. 
- [5] Kilian L, Park C. The impact of oil price shocks on the U.S. stock market[J]. International Economic Review, 2009, 50(4):1267-1287. 
- [6] Nandha M, Faff R. Does oil move equity prices? A global view[J]. Energy Economics, 2008, 30(3): 986-997. 
- [7] Hammoudeh S, Li Huimin. Oil sensitivity and systematic risk in oil-sensitive stock indices[J]. Journal of Economics and Business, 2005,

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- 57(1): 1-21. 
- [8] Ghouri S S. Assessment of the relationship between oil prices and US oil stocks[J]. Energy Policy, 2006, 34(17): 3327-3333. 
- [9] Miller J I, Ratti R A. Crude oil and stock markets: Stability, instability, and bubbles[J]. Energy Economics, 2009, 31(4): 559-568. 
- [10] Aloui C, Jammazi R. The effects of crude oil shocks on stock market shifts behaviour: A regime switching approach[J]. Energy Economics, 2009, 31(5): 789-799. 
- [11] Chen S S. Do higher oil prices push the stock market into bear territory?[J] Energy Economics, 2010, 32(2): 490-495.
- [12] Hammoudeh S, Choi K. Characteristics of permanent and transitory returns in oil-sensitive emerging stock markets: the case of GCC countries[J]. Journal of International Financial Markets, Institutions and Money, 2007, 17(3): 231-245. 
- [13] Nandha M, Hammoudeh S. Systematic risk, and oil price and exchange rate sensitivities in Asia-Pacific stock markets[J]. Research in International Business and Finance, 2007, 21(2): 326-341. 
- [14] Boyer M M, Filion D. Common and fundamental factors in stock returns of Canadian oil and gas companies[J]. Energy Economics, 2007, 29(3): 428-453. 
- [15] Narayan P K, Narayan S. Modelling the impact of oil prices on Vietnam's stock prices[J]. Applied Energy, 2010, 87(1): 356-361. 
- [16] Arouri M E H, Rault C. Oil prices and stock markets in GCC countries: Empirical evidence from panel analysis[J]. International Journal of Finance and Economics, 2012, 17(3): 242-253. 
- [17] Park J, Ratti R A. Oil price shocks and stock markets in the U.S. and 13 European countries[J]. Energy Economics, 2008, 30(5): 2587-2608. 
- [18] Cong Ronggang, Wei Yiming, Jiao Jianlin, et al. Relationships between oil price shocks and stock market: An empirical analysis from China[J]. Energy Policy, 2008, 36(9): 3544-3553. 
- [19] Arouri H M E., Nguyen K D. Oil prices, stock markets and portfolio investment: Evidence from sector analysis in Europe over the last decade[J]. Energy Policy, 2010, 38(8): 4528-4539. 
- [20] 姬强,范英.次贷危机前后国际原油市场与中美股票市场间的协动性研究[J].中国管理科学,2010,18(6):42-50. 浏览
- [21] 董坤,谢海滨,汪寿阳.中国股票市场的石油效应之谜[J].管理科学学报,2012,15(11):45-53.
- [22] Henriques I, Sadorsky P. Oil prices and the stock prices of alternative energy companies[J]. Energy Economics, 2008, 30(3): 998-1010. 
- [23] Apergis N, Miller S M. Do structural oil-market shocks affect stock prices?[J] Energy Economics, 2009, 31(4): 569-575.
- [24] Jammazi R, Aloui C. Wavelet decomposition and regime shifts: Assessing the effects of crude oil shocks on stock market returns[J]. Energy Policy, 2010, 38(3): 1415-1435. 
- [25] Al-Fayoumi N A. Oil prices and stock market returns in oil importing countries: The case of Turkey, Tunisia and Jordan[J]. European Journal of Economics, Finance and Administrative Sciences, 2009, 16: 86-101.
- [26] Mohanty S, Nandha M, Bota G. Oil shocks and stock returns: The case of the Central and Eastern European (CEE) oil and gas sectors[J]. Emerging Markets Review, 2010, 11(4): 358-372. 
- [27] Afshar T A, Arabian G, Zomorrodian R. Oil price shocks and the U.S stock market.Proccedings of IABR & TLC Conference, San Juan, Puerto Rico, USA, 2008,September. 
- [28] Chen C W S. A Bayesian analysis of generalized threshold autoregressive models[J]. Statistics & Probability Letters, 1998, 40(1): 15-22. 
- [29] Park S J, Shin D W, Park B V, et al. Bayesian test for asymmetry and nonstationarity in MTAR model with possibly incomplete data[J]. Computational Statistics & Data Analysis, 2005, 49(4): 1192-1204. 
- [30] Bauwens L, Lubrano M, Richard J F. Bayesian inference in dynamic econometric models[M]. Oxford: Oxford University Press, 1999.
- [31] Villani M. Aspects of Bayesian cointegration. Sweden: University of Stockholm, 2000.
- [32] Granger C W J, Hallman J J. Long-memory series with attractors[J].Oxford Bulletin of Economics and Statistics, 1991, 53(1): 11-26.
- [33] Granger C W J. Some recent generalizations of cointegration and the analysis of long-run relationships[M]//Engle R F,Granger W J. Long-run economic relationships. Oxford: Oxford University Press, 1991, 277-287.
- [34] Meese R A, Rose A K. An empirical assessment of nonlinearities in models of exchange rate determination[J]. Review of Economic Studies, 1991, 58(3): 603-619. 
- [1] 曹飞.石油价格冲击与中国实际经济波动研究——基于开放RBC模型的分析[J].中国管理科学,2015,23(7):45-52
- [2] 朱慧明,彭成,游万海,邓超.基于贝叶斯Wishart波动模型的原油市场与股市动态相依性研究[J].中国管理科学,2014,22(7):1-9
- [3] 蔡伟宏,唐齐鸣.基于无穷状态转换模型的中国股票市场收益率分析[J].中国管理科学,2014,22(1):10-19
- [4] 杨继平,陈晓晴,张春会.中国沪深股市结构性波动的政策性影响因素[J].中国管理科学,2012,20(6):43-51
- [5] 陈磊,曾勇,杜化学.石油期货收益率的分位数建模及其影响因素分析[J].中国管理科学,2012,20(3):35-40
- [6] 李霜,简志宏,郑俊瑶.石油价格冲击与经济波动风险最小化的货币供应机制分析[J].中国管理科学,2012,(2):26-33
- [7] 李磊,李明月,吴春林.考虑环境因素的三阶段半参数效率评价模型与实证研究[J].中国管理科学,2012,(2):107-113
- [8] 陈王,魏宇,淳伟德,侯县平.中国股市与周边股市波动风险传导效应研究[J].中国管理科学,2011,19(6):31-39
- [9] 吴刚,魏一鸣.突发事件情景下的中国战略石油储备应对策略研究[J].中国管理科学,2011,19(2):140-146
- [10] 周德群,孙立成,万红.考虑石油替代品和关税配额政策的石油储备模型研究[J].中国管理科学,2010,18(1):149-155
- [11] 严太华,陈明玉.基于马尔科夫切换模型的上证指数周收益率时间序列分析[J].中国管理科学,2009,17(6):33-38

- [12] 吕文栋, 潘慧峰.基于广义谱的石油市场弱式有效检验[J]. 中国管理科学, 2009,17(6): 51-56
- [13] 刘金全, 隋建利, 李楠.基于非线性VAR模型对我国货币政策非对称作用效应的实证检验[J]. 中国管理科学, 2009,17(3): 47-55
- [14] 高金余, 陈翔.马尔可夫切换模型及其在中国股市中的应用[J]. 中国管理科学, 2007,15(6): 20-25
- [15] 潘慧峰, 张金水.国内外石油市场的极端风险溢出检验[J]. 中国管理科学, 2007,15(3): 25-30

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