Market Crowd Trading Conditioning and Its Measurement

(Previous title was “A Price Volatile Trading Conditioning Model”)

Leilei Shi*, Yiwen Wang2, Ding Chen3, Liyan Han2, Yan Piao, and Chengling Gou4

1Complex System Research Group, Department of Modern Physics
University of Science and Technology of China
2Department of Finance, Beijing University of Aeronautics and Astronautics
3Harvest Fund Management Co. Ltd.
4Department of Physics, Beijing University of Aeronautics and Astronautics

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Abstract

We introduce a notion of trading conditioning in terms of classical conditioning (conditioned reflex) and operant conditioning in physiology and psychology, use transaction (accumulative trading) volume probability in a transaction volume-price probability wave equation to represent the intensity of market crowd trading conditioning, annotate the trading crowd psychological behavior in the volume probability, and study their cognitive and learning behavior in stock market. We find that there is, in general, significant positive correlation between the rate of price volatile mean return and the change in the intensity of trading conditioning in any two consecutive trading days, using high frequency data in China stock market. It further demonstrates that the rate of mean return significantly has a trading conditioning reinforcement value for market crowd and they behave notably disposition effect in selling and herd behavior in buying with expectancy on the reinforcement in stock market. We explain their behavioral anomalies by trading conditioning.

Key words: behavioral finance, econophysics, transaction volume-price probability wave, trading conditioning, crowd behavior, reinforcement, disposition effect, herd behavior

JEL Classifications: G12, G11, D03, D83

*Corresponding author. E-mail address: Shileilei8@yahoo.com.cn or leilei.shi@hotmail.com, working in an international securities company in China.

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