Accepted Manuscript

Margins on short sales and equilibrium price indeterminacy

Chenghu Ma, Jianqiang Hu, Yifan Xu

PII: S0304-4068(17)30133-7
DOI: https://doi.org/10.1016/j.jmateco.2017.11.003
Reference: MATECO 2195

To appear in: Journal of Mathematical Economics

Received date: 9 October 2014
Revised date: 31 July 2017
Accepted date: 12 November 2017

Please cite this article as: Ma C., Hu J., Xu Y., Margins on short sales and equilibrium price indeterminacy. Journal of Mathematical Economics (2017), https://doi.org/10.1016/j.jmateco.2017.11.003

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.
Margins on Short Sales and Equilibrium Price Indeterminacy

Chenghu Ma, Jianqiang Hu, Yifan Xu*
School of Management, Fudan University, China

July 31, 2017

Abstract

This paper studies the price and trading impact of margin rules for short selling within the context of Markowitz (1952). Our analysis is based on a newly obtained analytic solution for optimal portfolio holding under arbitrary margin rules. It is shown that heterogeneity in margins may have pricing effects and lead to price indeterminacy, particularly in the presence of derivative trading. Existence of equilibrium, along with a characterization theorem on the equilibrium outcome, is proved when investors have heterogeneous beliefs and different margins. Partial equilibrium analyses were carried out for the special case where investors agree on the volatility structure, but may hold different beliefs on expected payoffs. Upward deviations from the CAPM were discovered, extending Miller (1977)'s prediction to a multi-asset context.

Key Words: Slutsky effect; margin for short selling; derivative trading; heterogeneous belief; endogenous price indeterminacy.

JEL classification: D4, D5, G1

1 Introduction

How would institutional margin rules for short selling affect investors’ portfolio holdings? How would margin rules affect the equilibrium prices of the market portfolio and individual securities? And, how relevant is derivative trading to

*We benefit from discussions with Hendrik Bessembinder, Jerome Detemple, Phil Dybvig, Guanghui Hahn, Ning Sun, Edward Tsang, Steven Wei, Wei Xiong, Zaifu Yang, Xiangkang Yin, Chu Zhang and Xin Zhou. Thanks go to editors Alessandro Citanna and Atsushi Kajii, and particularly to two anonymous referees for providing very professional and extremely detailed comments that guided us to greatly improve the overall quality of exposition. We are grateful to Paul Ma for professional English proof-reading. Ma acknowledges support from The Natural Science Foundation of China under grant 71271058, and Hu acknowledges support from Shanghai Science and Technology PuJiang Funds under grant 09PJ1401500. For correspondence, please write to: machenghu@fudan.edu.cn

1 Manuscript
Click here to view linked References
دریافت فوری
متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات