Available online at www.sciencedirect.com
ScienceDirect
Journal of Financial Economics 83 (2007) 719–750
JOURNAL OF Financial ECONOMICS
www.elsevier.com/locate/jfec

Heterogeneous preferences and equilibrium trading volume ☆

Tony Berrada[a], Julien Hugonnier[b], Marcel Rindisbacher[c,*]

[a]Swiss Finance Institute, University of Geneva, Geneva, 1211, Switzerland
[b]Swiss Finance Institute, University of Lausanne, Lausanne, 1007, Switzerland
[c]J.L. Rotman School of Managment, University of Toronto, ON, Canada M5S 3E6

Received 12 May 2005; received in revised form 26 January 2006; accepted 4 February 2006
Available online 4 December 2006

Abstract

The representative-agent Lucas model stresses aggregate risk and hence does not allow us to study the impact of agents' heterogeneity on the dynamics of equilibrium trading volume. In this paper, we investigate under what conditions non-informational heterogeneity, i.e., differences in preferences and endowments, leads to nontrivial trading volume in equilibrium. We present a non-informational no-trade theorem that provides necessary and sufficient conditions for zero equilibrium trading volume in a continuous-time Lucas market model with heterogeneous agents, multiple goods, and multiple securities. We explain in detail how no-trade equilibria are related to autarky equilibria, portfolio autarky equilibria, and peculiar financial market equilibria, which play an important role in the literature on international risk sharing.
© 2006 Elsevier B.V. All rights reserved.

JEL classification: G12; G14

Keywords: Trading volume; No-trade equilibrium; Portfolio autarky equilibrium; Peculiar equilibrium; International finance

☆We are grateful to Jean-Pierre Danthine, an anomymous referee and the editor for helpful comments and suggestions. Financial support from the Swiss National Science Foundation through the National Center of Competence in Research: Financial Valuation and Risk Management is gratefully acknowledged.
*Corresponding author. Fax: +1 416 971 3048.
E-mail address: marcel.rindisbacher@rotman.utoronto.ca (M. Rindisbacher).

0304-405X/$ - see front matter © 2006 Elsevier B.V. All rights reserved.
doi:10.1016/j.jfineco.2006.02.001

1. Introduction

The main focus of the representative-agent Lucas model (Lucas, 1978) is on equilibrium prices and returns. Agents in this model are identical by assumption. As a consequence, the equilibrium sharing rule is linear and can be implemented without trade in financial securities. The representative-agent Lucas model is therefore valuable as a tool to study aggregate market risk, but at the same time, does not provide any testable hypotheses for equilibrium trading volume.

In order to generate nontrivial trading volume in a Lucas-type model, one needs to model heterogeneity among agents. Heterogeneity can be introduced in terms of either information,[1] preferences or endowments. While it is well understood that in symmetric information models the degree of heterogeneity of endowments, preferences, and beliefs determines the equilibrium trading volume, necessary and sufficient conditions for trade in a dynamic model are still unavailable. The main result of this paper fills this gap. It comes in the form of a no-trade theorem that provides necessary and sufficient conditions for zero trading volume in a Pareto-efficient Lucas economy with multiple goods, multiple securities, symmetric information, and homogeneous beliefs. We illustrate this result in a number of examples that include most of the classical multi-good utility functions used in financial economics. These examples show that the existence of a no-trade equilibrium does not necessarily require that agents have identical preferences. In particular, we show that such an equilibrium can exist when agents have log-linear preferences but assign different weights to each good in their consumption bundle.

As shown by Cass and Pavlova (2004) in a continuous-time model with multiple stocks, markets are not necessarily complete in equilibrium even if the number of risky securities equals the number of sources of risk. In order to circumvent the difficulties arising in the study of inefficient equilibria, we restrict our attention to Pareto-efficient equilibria and use the resulting proportionality of the utility gradients to infer the characteristics of preferences and endowments that do not generate trade in equilibrium. In contrast, in finite dimensional models, it is possible to choose the aggregate dividend in such a way that markets are necessarily dynamically complete in equilibrium. Such a model is studied in Judd, Kubler, and Schmedders (2003), where the aggregate dividends are given as an irreducible, stationary Markov chain. They show that in this case, the optimal consumption policies inherit the time homogeneity of the aggregate dividend, and they conclude that no trading occurs after the initial period in equilibrium irrespective of the agents' preferences. This is a striking result, but one should bear in mind that stationarity and irreducibility are strong assumptions. In particular, they imply that all information about future dividends is revealed at the initial time and prevent the introduction of dividend growth into the model. Furthermore, Bossaerts and Zame (2005) show that the no-trade result of Judd, Kubler, and Schmedders (2003) fails to hold as soon as individual endowments are nonstationary, even if stationarity is preserved at the aggregate level. Our study complements this discussion by allowing for general arbitrarily growing dividend

[1] See Pfleiderer (1984), Kyle (1985), Foster and Viswanathan (1990), and Wang (1994) for examples of models with asymmetric information. Note that to overcome the informational no-trade theorems of Milgrom and Stokey (1982) and Holmström and Myerson (1983), these models have to introduce exogenous liquidity traders or stochastic supply shocks.

دریافت فوری ← متن کامل مقاله

ISIArticles
مرجع مقالات تخصصی ایران

- ✓ 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