Bargains, Barter, and Money¹

Merwan Engineer

Department of Economics, University of Victoria, PO Box 1700, Victoria, British Columbia, Canada, V8W 2Y2 E-mail: MEnginee@UVic.CA

and

Shouyong Shi

Department of Economics, Queen's University, Kingston, Ontario, Canada, K7L 3N6 E-mail: Shi@qed.econ.QueensU.CA

Received August 31, 1999

We examine a search money model in which there is a symmetric coincidence of wants in all barter matches. However, when bargaining outcomes are asymmetric across matches, the barter economy is inefficient. Then a robust monetary equilibrium exists provided that money holders enjoy adequate bargaining terms. Fiat money may be welfare improving. In contrast to the literature, it is the asymmetry in bargains across matches rather than asymmetry in demands that generates these results. *Journal of Economic Literature* Classification Numbers: C78, E40. © 2001 Academic Press

Key Words: bargaining; barter; fiat; money; search.

1. INTRODUCTION

Ever since Jevons (1875) and Menger (1892), the absence of the double coincidence of wants has been the key feature used to motivate a role for money as a medium of exchange. Recent contributions by Jones (1976),

¹We thank Ken Burdett, Derek Laing, Kevin Moran, Neil Wallace, Randy Wright, and seminar participants at the Penn State Exchange in Equilibrium Conference 1998, Midwest Macroeconomics Conference in Pittsburgh 1999, and Canadian Economics Association Meetings in Toronto 1999 for valuable comments and suggestions. We are grateful to Social Sciences and Humanities Research Council of Canada for financial support. This paper was previously entitled "Terms of Trade, Barter, and Fiat Money."



Kiyotaki and Wright (1989, 1991, 1993) among many others, provide general equilibrium search models that prove how an absence of the coincidence of wants gives rise to valued money. In other money models, like that of Williamson and Wright (1994), informational frictions generate an effective absence of the double coincidence of wants. In all these models, money fails either to be robustly valued or to improve welfare if there is a frictionless double coincidence of wants in matches. It is tempting to presume that this is a general result.

This paper examines a search money model in which there is no impediment to barter from Jevons' "want of a coincidence of wants" in matches. The particular model we develop is a variant of Shi (1995) and Trejos and Wright (1995) where goods are divisible and there is diminishing marginal utility of consumption. We modify the model so that there is a *symmetric double coincidence of wants* in all barter matches: both agents in any match receive the same utility from consuming equal quantities of the other's good.

The model is used to determine under what circumstances, if any, robust monetary equilibria would exist with frictionless exchange in matches. We find equilibria in which money holders strictly prefer to hold money in search, when barter generates *asymmetric bargains* across heterogeneous matches and money holders enjoy sufficiently good bargaining terms of trade.

In describing the patterns of exchanges consistent with our results, we take an agnostic view toward particular bargaining solutions. Rather than restricting our analysis to a particular mechanism (like split-the-surplus or take-it-or-leave-it solutions), we explore all individually rational bargains. Bargains on a match's surplus frontier are referred to as *efficient bargains*.

To get a more specific characterization we restrict the analysis to efficient bargains arising from the generalized Nash bargaining solution. Asymmetric bargains result whenever the Nash bargaining weights vary across matches according to the mix of items traded. This captures the idea that some traders may get the better of others in particular matches. We examine the convention where each agent receives a superior bargaining weight $\Omega > 1/2$ in as many barter matches as it has an inferior weight, $1-\Omega$. With random matching, all agents are in a similar position ex ante.

With asymmetric bargains and diminishing marginal utility of consumption, barter generates an inefficiency. The benefits from receiving better bargains in half of the matches is not compensated by the loss of receiving poor terms in the remaining matches. On average agents are worse off relative to when the bargains are symmetric, $\Omega = 1 - \Omega = 1/2$.

When the barter convention generates an inefficiency, monetary equilibria may exist provided that money holders enjoy sufficiently good bargains.

دريافت فورى ب متن كامل مقاله

ISIArticles مرجع مقالات تخصصی ایران

- ✔ امكان دانلود نسخه تمام متن مقالات انگليسي
 - ✓ امكان دانلود نسخه ترجمه شده مقالات
 - ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
 - ✓ امكان دانلود رايگان 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